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# Increasing the Proportion of BSN Prepared Nurses to 80% by 2020 in One North Iowa Health Care Facility

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Increasing the Proportion of BSN Prepared Nurses to 80% by 2020 in One North Iowa  
Health Care Facility

Systems Change Project  
Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Nursing Practice

St Catherine University  
St. Paul, Minnesota

Mica Frey Harris

May, 2014

ST. CATHERINE UNIVERSITY

ST. PAUL, MINNESOTA

This is to certify that I have examined this  
Doctor of Nursing Practice systems change project  
written by

*Mica Frey Harris*

And have found that it is complete and satisfactory in all respects,  
and that any and all revisions required by  
the final examining committee have been made.

Graduate Program Faculty

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Dr. Roberta Hunt

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May 23, 2014

DEPARTMENT OF NURSING

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### Dedication

This systems change project is dedicated to my children. Thank you for your patience and understanding as I worked to accomplish my life-long dream. Zachary, Caleb, and Noah, without each of you by my side, this journey would have little meaning.

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### Executive Summary

There is currently a crisis in health care related to the quality of patient care and the subsequent patient outcomes. The Institute of Medicine (IOM) addressed many of these concerns in a report focused on strengthening the profession of nursing while partnering with other leaders in health care to improve health care systems and the delivery of health care (IOM, 2010). This report was released following the largest reform to the health care system since the development of Medicare and Medicaid in 1965, The Affordable Care Act (ACA; IOM, 2010). Despite generating some improvements, the ACA has created many challenges for an already overwhelmed and increasingly complex health care system.

The IOM has made several recommendations to health care facilities based on a body of research that suggests there is an inverse relationship between the educational preparedness of the patient care nurse and adverse patient outcomes. Several researchers have concurred there is a need to focus on improving the education level and educational opportunities of nurses (IOM, 2010). A formal recommendation for health care facilities to improve the proportion of nurses with baccalaureate of science in nursing (BSN) degrees by 2020 was made by the IOM in 2010.

The aim of this systems change project (SCP) was to collaborate with a rural North Iowa health care facility with a current BSN rate of 25.5% to survey direct care nurses from 21 departments in order to identify what they reported were the barriers to returning to school. Barriers for both nurses currently enrolled in or accepted into a BSN program as well as nurses not currently enrolled in or accepted into a BSN program were identified. This information was used to make preliminary recommendations to facility administrators and to seek input for the next steps for possible program development. From this process a final set of recommendations was created.

## Chapter 1: Introduction to the Study

The introduction of the 2010 ACA brought forth many concerns regarding the provision of safe, accessible, affordable, and quality health care. Because nurses are the largest group of health care professionals, nursing in particular is faced with the challenge of improving patient care and outcomes during this major change in health care delivery. The IOM (2010) report focused on advancing the nursing profession by improving the nursing education system to allow for a seamless transition of academic progression. One recommendation in this report was to increase the proportion of BSN prepared nurses to 80% by 2020.

### **Background and Significance**

Nursing has had more than one level of educational preparation for greater than a century. The profession includes licensed practical nurses (LPN, LVN), diploma nurses, associate degree nurses (ADN), baccalaureate degree nurses (BSN), master level degree nurses (MSN), and doctoral prepared nurses (PhD, DNP, DNS, DSN, DNSc). Many researchers have reported a direct relationship between nurses' education level and patient outcomes (Aiken et al., 2011; Long, 2004; Neff, Cimiotti, Heusinger, & Aiken, 2011; Ridley, 2008). Studies indicate that facilities with higher proportions of BSN prepared nurses have a 4-10% lower mortality and failure to rescue rates (Aiken et al., 2011; Aiken et al., 2014; Kendall-Gallagher, Aiken, Sloane, & Cimiotti, 2011; Ridley, 2008). In addition, according to Long (2004), post-surgical patients who are cared for at health care facilities with higher proportions of nurses with BSN preparation have a substantial survival advantage over post-surgical patients who seek care in facilities that do not.

The Health Resources and Services Administration (HRSA) reported a critical nursing shortage and an increased demand for registered nurses (RNs) within the next decade (HRSA,

2013). The severity of the nursing shortage is expected to escalate due to several factors including the aging baby boomer population in both patients and nurses. Additional concerns include an increase in the complexity of health care and difficulties in recruiting and retaining in the nursing profession. Given those troubling factors, HRSA has called for an elevation in the education level of RNs, as nurses are now faced with caring for patients whom are living longer with more complex health and social conditions. This requires astute critical thinking skills in managing and treating these afflictions.

Although the American Nurses' Association (ANA) first advocated for all nurses to be educated at a BSN level in 1964, there has been little movement toward this goal in the last half century (Aiken, Cheung, & Olds, 2009). Currently, nationwide, 50% of nurses are educated at a BSN level. The North Iowa health care facility that was the site for the project described in this paper currently has 25.5% of practicing nurses with a BSN or above. This is consistent with data that indicate that the state of Iowa's proportion of BSN prepared nurses is 25% ("More Iowa nurses," 2011). A position statement from the Iowa Organization of Nurse Leaders (IONL; 2010) supports the state of Iowa in encouraging all practicing nurses to be educated at a minimum level of a baccalaureate degree.

The education received from a BSN program is broader than the ADN curriculum, preparing nurses to practice in a wider variety of health care settings including intensive care units, mental health units, public health, and outpatient (American Association of Colleges of Nursing [AACN], 2013a). Curriculum at a BSN level also includes content in management and leadership, nursing research, patient education and clinical skills whereas ADN curriculum focuses mainly on clinical skills (AACN, 2013b). This additional preparation is essential as health care is rapidly moving from acute care to focusing more on preventive and primary care.

Baccalaureate prepared nurses have a wider knowledge base that allows for the provision of more complex care and a deeper understanding of clinical concepts, such as the prevention of disease, measurement and management of patient outcomes, assessing patient risk, and quality improvement (Spencer, 2008). A BSN education also prepares nurses to act as advocates for the health of patients, families, and populations as well as for the nursing profession. Nurses with a BSN education are familiar with the political and organizational processes and are able to contribute to the development of the nursing standards of practice (Mason, Leavitt, & Chaffee, 2012).

According to the ANA, the current health care system is both complex and continuously changing; front line care providers have a responsibility and accountability for patient outcomes (Foley, 2000). As the current health care system evolves, there is a need for an increasingly professional nursing workforce. This workforce must embrace evidence-based nursing practice, employ astute research skills, and use highly effective communication skills, all the while demonstrating the ability to lead and manage change.

In order to prepare the nursing workforce for this environment, nurses must be educated at a minimum of a baccalaureate level. The ANA has called for increased accessibility to quality educational programs to meet the IOM recommendation. A competent nursing workforce that is skilled, clinically astute, and able to provide evidence-based care should be offered to each and every consumer of health care. When competent care is not universally available this leads to concerns regarding social justice. Every human is entitled to fair treatment, equal rights and the participation in educational, social, economic, and health care opportunities (Benner, Sutphen, Leonard, & Day, 2010). Health care facilities and institutions of learning can employ many strategies not only to increase the proportion of RNs returning to school for BSN education, but

to make the transition enjoyable for those doing so. A recommendation to remove the barriers for nurses returning to school, as well as to improve the organizational incentives will increase the proportion of nurses seeking BSN education. It may also make the process more personally satisfying, accessible, manageable, and worthwhile. The IOM has made the formal recommendation that health care organizations, leaders in academia, accrediting bodies, and private and public education funders join forces to make this recommendation a reality (IOM, 2010).

Multiple sources of evidence exist in support of health care facilities' increasing the proportion of BSN educated nurses. Evidence related to the improvement of quality of patient care as well as confirmation that removing barriers and providing incentives for nurses to return to school can improve a facility's BSN proportion are available. This is found in research databases as well as Internet search engines and state, local, and government web pages. Ensuring that health care facilities employ nurses that are educated at a level that supports the complexity of the current and future health care system is in alignment with recommendations made from the IOM, HRSA, and the AACN.

### **Research Setting**

The health care facility that served as the site for this project is located in a small Midwestern town with a population of approximately 30,000 people. This acute care facility is a licensed 240 bed, regional referral teaching center that employs over 130 physicians and more than 400 nurses. Acute care, long-term care, outpatient services and numerous clinic services are provided within the facility. Of the roughly 400 nurses employed at this facility (including direct patient care departments, non-direct patient care departments, and outpatient clinics) only 25.5% are educated at a baccalaureate level or above. In response to the IOM report, the goal of this



systems change project was to create a set of recommendations to meet the IOM guideline of 80% of the nurses employed at this facility having completed a baccalaureate in nursing education by 2020. This SCP was limited to direct patient care departments only.

### **Stakeholders**

As with most initiatives in health care, there were multiple stakeholders to consider. This project has potential to benefit patients, nurses returning to school, and the health care facility itself. As mentioned above, benefits to the patients include decreased mortality and failure to rescue rates, a decrease in hospital-acquired conditions, and a decrease in time spent in the hospital. Benefits to the health care facility include improved patient outcomes as well as significant financial benefits. Benefits to the nurses include increased job satisfaction, improved self-esteem, increased income, and a sense of accomplishment (Adorno, 2010).

### **Problem Statement**

To address and improve the quality of patient care, nurses must increase their knowledge base by continuing their education. The purpose of this SCP was to identify and remove barriers and provide incentives for ADN, LPN, and diploma nurses who desire to progress toward the goal of a BSN.

### **Systems Change Project**

The systems change project was designed to address the large gap between the IOM's recommendation of 80% of nurses being educated at a BSN level and the current percentage of 25.5% BSN prepared nurses at the facility. The basis for this project originated from a comprehensive literature review. A survey was developed to identify barriers. This was distributed to each of the 21 direct patient care departments in the facility. Once compiled, the data were analyzed. Using the results of the data analysis, recommendations for increasing the

BSN proportion were proposed and shared with the facility administrators. In consultation with facility administrators, a plan would be devised to create a pathway through institutional programming to meet the recommendation of 80% of the nurses employed at this facility to have completed a BSN by 2020.

### **Project Objectives**

Project objectives were developed in the initial phase of the SCP. Input was taken from project stakeholders including a site mentor for the author, director of human resources, chief nursing officer (CNO), and SCP academic advisor.

### **Timeline for Data Collection**

1. Project objectives include: Meet with the facility's nursing administration and the director of human resources to discuss the proposed SCP by November 15, 2012.
2. Meet with the facility's quality and patient safety department to review data from the past Culture of Safety survey by December 1, 2012.
3. Meet with the facility's clinical nurse managers and clinical leaders to discuss quality and safety issues in their departments by December 15, 2012.
4. Develop a survey tool that will adequately capture the perceived barriers to a BSN degree for nurses at this North Iowa health care facility by March 1, 2013.
5. Obtain Institutional Review Board (IRB) approval for the survey and research study by December 1, 2013.
6. Distribute the survey to the intended audience at the health care facility by December 15, 2013.

**Timeline for Data Analysis and Developing Recommendations**

1. Analyze the survey data to identify the perceived barriers faced by nurses with an LPN degree, diploma, or ADN when returning to school to obtain a BSN by January 10, 2014.
2. Provide facility administration with a succinct summary of the data analysis of the survey results by February 20, 2014.
3. Provide facility administration with recommendations to assist nurses in removing their perceived barriers, based on the data analysis and review of the literature by February 20, 2014.
4. In consultation with facility nursing and human resource administrators, create a pathway to meet the IOM recommendation of increasing to 80% the nurses employed at this facility who have completed a BSN by 2020 by April 14, 2014.

**Summary**

The current health care crisis affects all people in the United States. Americans have become more aware of this issue recently due to the legislation of the ACA. In regard to health care quality, there is little doubt that it is affected by several factors, including the education level of the direct care providers. The research related to patient outcomes and the educational preparedness of the direct patient care nurses has influenced the IOM to recommend that health care facilities strive to meet the goal of having 80% of nurses educated at a minimum of a BSN by 2020. This systems change project was developed for a rural health care system in Iowa to address the need to confront this current deficit. Assessing the facility nurses' perceived barriers to returning to school is the first step in the process of meeting the IOM's recommendation.

## Chapter 2: Literature Review

Several theories and philosophies provided support and context for the project's framework. The theories and philosophies provide ethical guidance as well as support from the nursing evidence-based literature. Each of the theoretical sources offers a better understanding of applicable economics concepts, change theory, and principles of ethics and social justice. The literature review provides an assessment of the strengths and weaknesses of several levels of evidence used to develop and guide this SCP. The review includes seven original research studies, expert opinions, and systematic reviews. A summary of this process is outlined and contributes to the development of the survey to be used in this SCP.

### **Theoretical Framework**

#### **Human Capital Theory**

Human capital theory guided the development of this SCP. Becker's human capital theory, developed in the 1960s, is extremely useful as health care facilities are under enormous pressure to contain costs while improving care (Gilead, 2009). This theory postulates that human capital includes not only the people involved in an organization, whether they be employees or volunteers, but also their knowledge and skills (Culver Clark & Allison-Jones, 2009). According to Graf (2006), human capital theory suggests that if individuals feel that the benefits of pursuing advanced education outweigh the costs, they are motivated to do so. Examples of benefits typically include a pay increase, career advancement, and assistance with college costs.

People can easily be separated from their physical and financial assets, but they cannot be separated in the same way from acquired knowledge and skills. Therefore, when a facility or organization invests resources in the education of its people, they are investing in human capital. As the North Iowa health care facility devotes resources to support nurses' returning to school by

providing tuition reimbursement and educational loan assistance to obtain a BSN, it is investing in human capital.

### **Nursing Services Delivery Theory**

A decade after the release of the IOM report on patient safety and quality of patient care, the health care industry continues to struggle with these issues (Aiken et al., 2011; IOM, 2000). More than 98,000 people in the United States die each year as a result of medical errors (IOM, 2000). With greater than half of these deaths are a direct result from a delivery of care error (Lucero, Lake, & Aiken, 2009).

With nursing the largest proportion of the health care workforce and valuable in patient care outcomes, the IOM recognized that nurses are a professional group that might be targeted to improve safety and quality of patient care. This is supported by the literature demonstrating an inverse relationship between adverse patient outcomes and the education level of direct patient caregivers (Adorno, 2010; Aiken et al., 2011; IOM, 2010). The IOM (2010) recommended that health care facilities should work to improve their proportion of BSN prepared nurses to 80% by 2020.

In alignment with the concerns highlighted in the 2010 IOM report, a second theory, nursing services delivery theory, was used to guide this project. This economic theory focuses on the allocation of resources for nursing services with the goal of providing quality care while containing costs. The project site, a North Iowa health care facility, was already using this theory to organize and structure the allocation of resources for nursing services when the development of this SCP commenced.

One component of nursing services delivery theory focuses on *nurse characteristics*, defined as demographic, health, and professional factors. Another, *professional factors*, includes

a nurse's educational level and work history. Nursing services delivery theory functions through the interaction of three components: inputs (patients), throughputs (nurses), and outputs (outcomes). The correlation between education level of nurses and patient outcomes is well documented in the nursing literature and is discussed later in this chapter. The relationship between patient outcomes and nurse education exemplifies improving care delivery through intra-professional practice (Meyer & O'Brien-Pallas, 2010). This requires health care facilities to have a comprehensive model to promote professional practice that is comprised of tangible benefits including extrinsic factors, such as salaries, benefits, bonuses, continuing education allowances, and salary differentials (Ng'ang'a & Woods Byrne, 2012). On account of this, allocating resources to nurses returning to school to obtain higher education is supported.

### **Catholic Social Teachings**

Although not considered a theory, Catholic social teachings were also used in guiding this SCP. These principles were familiar to the project site, which is a Catholic health care facility. Catholic social teachings can be used to guide business and economic decisions (Epstein, 2008). Since health care in the United States is considered both a service industry and a business, this principle can be applied to this project. There are three elements of Catholic social teachings that Epstein (2008) considered the most appropriate to business. The first of these is that the moral significance of individuals and organizations are considered when organizational decisions are made. The second relates to the social responsibility of a corporation to consider both the internal and external stakeholders' views of organizational policies and behavior. Finally, Epstein (1987) discussed the ways that Catholic social teachings inform organizational processes for addressing problems and issues that arise after business and economic decisions are made. All three are relevant in this SCP. Stakeholders affected by the facility's goal of increasing

the proportion of BSN prepared nurses were considered in the development of each stage of the project and a plan for further research, development, and evaluation is in place.

### **Social Justice**

There are various definitions of social justice found throughout the literature. According to Hannum (2012) social justice may be thought of as working together to transform societal structures for the common good. Social justice is viewed within religious institutions as a means of creating the conditions necessary for a middle class by addressing housing, education, and employment. Guaranteed health care, promoting both the common good and individual dignity is considered by many as socially just policy. According to Budetti (2008), social justice is present when goods and services are allocated based on the needs of individuals in society.

According to Kelsey and Smart (2012), social justice can be viewed as the distribution of advantages and disadvantages to people in society. Social justice is also described as the balancing of burdens and benefits by all individuals in a society, creating living conditions that are both equitable and just (Buettner-Schmidt & Lobo, 2012). Improving the education level of direct patient care nurses is in alignment with social justice principles. With research that shows an inverse relationship between adverse patient outcomes and the education level of caregivers, it is fair and equitable to provide nursing care to patients from staff nurses with the highest education level possible (Buettner-Schmidt & Lobo, 2012). In this case, striving to increase the proportion of nurses holding a BSN in a given facility is an attempt to create social justice through equity in the delivery of care.

### **Literature Review and Synthesis**

Several levels of evidence were investigated in the literature review. These include original research, a systematic review, and expert opinion. These various sources of evidence

were ranked using *Melnyk's Hierarchy of Evidence* (Melnyk & Fineout-Overholt, 2011). The literature review provides understanding of the experiential knowledge and evidence to date concerning what is known about a nurse's perceived barriers and incentives to returning to school for BSN education.

### **Database Search**

The literature search was conducted using PubMed, CINAHL, as well as Dissertation Abstracts International via the electronic databases provided through St. Catherine University. Key words used for this search were: *RN-BSN education, IOM recommendations, patient outcomes, educational levels, hospital mortality, and patient safety*. Published works were initially limited to peer-reviewed journals, full-text journals, and articles published within the last 10 years. The search was narrowed to articles published within the last five years, resulting in a limited number of relevant journals. Articles were then reviewed for original research. References and bibliographies were used as a source for additional meta-analysis studies. Google Scholar was used to identify government reports.

### **Original Research**

Zuzelo explored the perceptions of RN's returning to school for BSN education using a convenience sample of 23 participants (2001). The research team interviewed each participant and 18 themes emerged from the analysis. Leonard (2003) explored the lived experiences of 35 participants through a survey. The purpose of this study was to explore the benefits and barriers of RNs returning to school for BSN education. Three benefit themes and three barrier themes were identified in this study. The specific themes for all studies reported will be outlined in the next section of this paper.



Similar studies were published in both 2004 and 2005. Delaney and Piscopo (2004) used a survey method to explore the perceptions that were held by 101 RNs as to the benefits and barriers of enrolling in an RN-BSN education program. Five benefit themes and four barrier themes emerged from this study. In 2005, researchers utilized a survey method as well and explored the perceptions of RNs returning to school for a BSN education (Lillibridge & Fox, 2005). There were seven themes reported in this research study.

A gap in the literature exists until 2008 when Megginson used a focus group method to identify the essence of realities and viewpoints of RN-BSN students. Six students participated in this study and from it, six incentive themes and five barrier themes were described. Kalman, Wells and Gavan (2009) conducted individual interviews with 11 nurses to explore ADN nurses perspectives on returning to school after being out of school for more than three years. Adorno (2010) in an unpublished manuscript explored the benefits and barriers experienced by 12 nurses completing a BSN. This study used a phenomenological research design with a purposive sample that identified seven barriers.

**Ethical considerations.** Of the research reviewed, six studies mention receiving approval from the IRB (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001). Only Leonard (2003) did not mention receiving IRB approval. Another important ethical consideration is potential bias. Interestingly, potential bias was mentioned in only three studies (Adorno, 2010; Lillibridge & Fox, 2005; Zuzelo, 2001). Researcher bias threatens the reliability and validity of qualitative research, particularly in academic or some workplace settings where there may be potential for participants to feel pressure to return to school for advanced degrees. Research conducted by

nurses on the subject of returning to school for BSN education may be influenced by personal experiences as a former student, nursing faculty, or as a practicing RN.

**Analysis of original research.** All seven studies stated similar purposes. These include exploring the perceptions of RN-BSN students as they made the decision to return to school, identifying what they considered to be barriers to doing so, and what they believed were their personal incentives to obtain a BSN.

Similar barriers were reported in all seven studies. These barriers were: competing role demands, insufficient financial resources, lack of flexible scheduling options at work, fear of failure, diminished self-esteem, and lack of perceived professional incentives (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavin, 2009; Leonard, 2003; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001). The most frequently mentioned barrier was role demands. Role demands, defined as the difficulty fulfilling obligated roles include managing family, work, and school (Goode, 1960). Role strain is considered normal as individuals returning to school are challenged to fulfill additional roles.

Another commonly reported barrier was lack of distinction between nursing degrees (Delaney & Piscopo, 2004; Leonard, 2003; Megginson, 2008; Zuzelo, 2001). This includes roles, knowledge, and skills required for each different level of nursing education. There is a general belief that advancing nursing education will not help nurses to become smarter, better, or more astute clinically. Nurses also fear that completing a BSN will not necessarily lead to job promotion or advancement in their career. Both nurses and employers reported this perceived lack of value.

In addition to the common barriers identified in the literature, Leonard (2003) and Delaney and Piscopo (2004) reported the application process for school as a barrier. This

included school selections, acquiring transcripts, obtaining financial aid, and requesting references and letters of recommendation. Lack of recognition within the academic community for past educational and life accomplishments was also perceived as a barrier (Megginson, 2008). Lillibridge and Fox (2005, p.14) identified a barrier of “not fitting in” that was not reported in other research. This may be a result of some programs allowing nurses to join in the classroom during the final two years of the traditional nursing student’s courses. In these situations, some reported feeling out of place in the classroom with students who had no nursing experience. Table 1 summarizes the barriers found in the literature.

Table 1  
*Barrier Themes in Literature*

Theme	Source
Role strain	Leonard (2003); Adorno (2010); Zuzelo (2001); Megginson (2008); Kalman, Wells & Gavan (2009)
Financial concerns	Delaney & Piscopo (2004); Lillibridge & Fox (2005)
Lack of support	Zuzelo (2001); Delaney & Piscopo (2004); Leonard (2003); Adorno (2010); Lillibridge & Fox (2005); Kalman, Wells & Gavan (2009)
Inflexible schedule	Kalman, Wells & Gavan (2009); Delaney & Piscopo (2004)
Fear of failure	Adorno (2010); Megginson (2008)
Not fitting in	Lillibridge & Fox (2005)
Diminished self esteem	Zuzelo (2001)
Lack of recognition for past accomplishments	Megginson (2008)
Advancing age	Delaney & Piscopo (2004)
Lack of professional incentive	Megginson (2008); Delaney & Piscopo (2004); Zuzelo (2001)
Lack of distinction between degrees	Leonard (2003); Delaney & Piscopo (2004); Zuzelo (2001); Megginson (2008)

Process of finding, applying to,  
and navigating a program

Delaney & Piscopo (2004); Zuzelo (2001)

---

Similar themes related to incentives to return to school were identified in the literature, including: personal fulfillment, career advancement, improving general and global knowledge of health care, and creating an edge over other nurses. Both Leonard (2003) and Lillibridge and Fox (2005) found attending graduate school as an incentive for BSN completion. Megginson (2008), Delaney and Piscopo (2004), and Lillibridge and Fox (2005) also cited improving credibility as a motivation. A summary of the incentive themes is shown in Table 2.

Table 2

*Incentive Themes in Literature*

Theme	Source
Personal fulfillment	Leonard (2003); Adorno (2010); Megginson (2008); Kalman, Wells & Gavan (2009); Lillibridge & Fox (2005); Delaney & Piscopo (2004)
Career advancement	Adorno (2010); Delaney & Piscopo (2004); Leonard (2003); Kalman, Wells & Gavan (2009)
Knowledge improvement	Zuzelo (2001); Delaney & Piscopo (2004); Leonard (2003); Lillibridge & Fox (2005); Kalman, Wells & Gavan (2009)
Having an <i>edge</i>	Leonard (2003); Lillibridge & Fox (2005)
User friendly RN-BSN program	Megginson (2008)
Continuing to graduate school	Leonard (2003); Lillibridge & Fox (2005)
Improving credibility	Delaney & Piscopo (2004); Lillibridge & Fox (2005); Megginson (2008)
Professionalism	Megginson (2008); Adorno (2010); Kalman, Wells & Gavan (2009); Lillibridge & Fox (2005)

**Synthesis of findings.** Each of the seven studies reviewed support the purpose and research question posed in this SCP. Further, the studies reviewed explored the experiences of

ADN nurses' perceived challenges and barriers to continuing their education (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Leonard, 2003; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001).

This review of the literature related to RNs returning to school to obtain a BSN suggests research is limited to qualitative studies. There is a need for additional quantitative research with a larger sample size and more diverse methodologies. Collecting demographic data including years and type of nursing experience is also recommended. This would allow a comparison of barriers and incentives for nurses who are new graduates of ADN programs to nurses who have been in practice for 5-10 years, 11-20 years, 21-30 years, and 31-40 years. Further, it would permit a better generalization of the research findings, as these data are not currently available in the literature. The common themes that emerged from this review of the literature provide additional research questions that merit exploration. One question might be: What methods for stress relief in dealing with role strain issues are found to be beneficial by RNs returning to school? Another potential question is: What interventions have been successful in assisting health care organizations to reach the goal of 80% of nurses educated at a BSN level or beyond by 2020?

**Strengths.** Specific frameworks have been developed to assure the trustworthiness of qualitative research. Such frameworks are used to assure credibility, transferability, dependability, and confirmability in qualitative studies (Shenton, 2003). To determine credibility in qualitative research, internal validity must be established. This is done by researchers' choosing well-established research methods, conducting thorough investigations of the participating organizations' culture, using randomized samples when possible to diminish the possibility of researcher bias, establishing credibility of the researcher, and using a variety of

methods for data collection. Six of the seven original research studies meet the credibility criteria (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001). The study by Leonard (2003) did not share information that could assist in determining credibility of the researcher, nor is there a disclosure of potential researcher bias that could discredit this study. There is also no reference to how the researcher determined that the survey data collected were accurate.

Ensuring transferability in qualitative research can be challenging due to the small sample size in most studies. To assist the reader in applying the findings of the study to their own situation, the researcher must provide a full explanation of all contextual factors in the study. Examples of describing contextual factors include: identifying the weaknesses of the study, defining the sample population characteristics, reporting the number of participants, and describing the methods for data collection (Shenton, 2003). With the exception of the study by Leonard (2003), which did not include a discussion regarding the study's weaknesses, transferability was evident in the remaining studies (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001).

According to Shenton (2003) to ensure dependability, the researcher uses techniques that demonstrate that the study would yield similar results if repeated using the same methodology and context. Processes that include specific detail must be reported in order for future researchers to repeat the study. Details that must be reported to ensure dependability include: a description of the research design, implementation plan, data gathering and collection methods, and a reflection detailing the effectiveness of the research design. All seven studies met the dependability criteria (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Leonard, 2003; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001).



Finally, to ensure that a study is confirmable, the qualitative researcher must pay close attention to his or her ability to remain objective throughout the entire research process. Preferences and characteristics of the researcher should not be evident in the study. The researcher must disclose any potential biases and also identify any weaknesses of the study. A detailed description of the background, literature review, methodology, analysis, and discussion allows the reader to form an audit trail that follows the research process from beginning to end (Shenton, 2003). Methods to ensure confirmability were reported, and appear to be satisfactory in six of the seven studies (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001). The study by Leonard (2003) did not include the study's weaknesses or present information regarding any potential researcher biases that may exist.

**Weaknesses.** There were weaknesses noted in the review of the literature. Although only one study did not mention receiving approval from the IRB (Leonard, 2003), the implications are enormous. If proper steps are not taken to protect human subjects in medical research, scholars should not consider this research "good science" (Yuan & Hunt, 2009, p.1088). Mention of content analysis was missing in one study (Leonard, 2003). This omission brings into question the validity and reliability of a study, as well as the study rigor. Methods to collect data should be considered as limitations in phenomenological research. Even with consent and IRB approval, study participants may feel uncomfortable with survey, questionnaire, or focus group questions once the content of these are revealed and may not be forthcoming in the description of their experiences and feelings.

According to Polit and Tatano Beck (2008), another potential limitation in qualitative research is the tendency to explore social processes and issues in the work and academic setting.

This research is often conducted by someone who may be perceived as having authority or power over the study participant. This relationship between the researcher and participant may lead to a fear of disclosure and even eventual retaliation for responses that may be perceived as negative or unfavorable. In response, the study participants may omit responses that may be valuable and provide insight to the organization or institution. In some cases participants may respond in the manner that they believe the researcher prefers.

### **Systematic Reviews**

Due to the vast number of medical journals and amount of published research (approximately 20,000 journals and as many as 2,000,000 journal articles per year), medical professionals often find it difficult to stay current with primary research and evidence related to practice. One shortcut to staying up to date with literature is to consult systematic reviews. There are two types of systematic reviews: qualitative or quantitative. Qualitative reviews summarize study results, while quantitative reviews or meta-analysis include primary study results aggregated using statistical methods. Systematic reviews have distinct advantages over narrative reviews. Systematic reviews provide in-depth analysis of the clinical question as well as comprehensive sources of information. Systematic reviews also critically appraise and synthesize relevant studies.

After review of several databases, including CINAHL, Medline, and PubMed, a single meta-analysis was found that was published in 2011 and includes 28 studies related to the attitudes and perceptions of nurses' returning to school (Altmann, 2011). Four current societal influences that point to the importance for supporting nurses' continuing education for a baccalaureate were identified. First, a large percentage of practicing nurses have either a diploma or an associate's degree. Second, numerous researchers have found an inverse relationship

between adverse patient outcomes and the education level of the staff nurses. A third influence relates to economic factors that impact the supply of nurses. When there is a high demand for nurses, there is less incentive for nurses to return to school for higher education. Finally, in academia, a waning supply of nursing faculty creates an increased demand for nurses to advance their education to fill the vacancies in faculty in academic nursing programs (Altmann, 2011).

The meta-analysis found that there are several characteristics common in nurses who return to school for a BSN education. These nurses are largely young, female, and graduates of ADN programs who have few years' employment as a nurse. Factors that promote a return to school first involve finding a BSN program that is user-friendly. Receiving encouragement from co-workers was also reported to be motivating. Personal characteristics such as seeking to improve professional identity, having a personal goal of obtaining an advanced degree, or being at the right time in life were also factors that influence a return to school (Altmann, 2011).

Barriers to seeking a BSN were mentioned throughout the literature reviewed. Disincentives included: having a previous negative experience in formal education or possessing a belief that there is no additional value to continuing education. Another barrier related to experiencing difficulty with the enrollment process. Personal challenges such as having a poor self-esteem and lacking study skills were also cited as barriers (Delaney & Piscopo, 2004; Zuzelo, 2001).

### **Expert Opinions**

In search of national practice guidelines for RN-BSN education, the following databases were used: National Guideline Clearinghouse (NGC), International Guideline Library, Hospital Quality Alliance, and The Cochrane Collaboration. After a thorough exploration with no results, it is reasonable to conclude that no such guideline exists for removing barriers and providing

incentives for RN's continuing their education. In substitute, a report from the IOM was reviewed and will be presented in this paper.

In 2008, a 2-year initiative was launched by the IOM and the Robert Wood Johnson Foundation (RWJF) to assess the current state of nursing practice and make recommendations to transform practice. A committee of stakeholders that included 18 members with professional backgrounds in clinical nursing practice, nursing education, post-secondary education administration, health care administration, health care insurance, and public health was appointed. The report was released in October of 2010 (IOM, 2010) coinciding with the 2010 ACA. Provisions of the law include the expansion of Medicaid and reform of the current health insurance system. This involved improving access to health coverage, consumer rights and protections, and access to health care (*More Secure Future*, n.d.).

Eight recommendations were made to advance the work of nurses in innovating and improving patient care (IOM, 2010). The fourth recommendation called for an increase in the proportion of nurses with a BSN to 80% by 2020. Nursing leaders in academia were encouraged to work collaboratively with health care organizations, accrediting bodies, and organizations that fund education to reach this goal. Suggestions for meeting this goal were as follows. Firstly, each school of nursing should provide an academic pathway that is seamless and allows students to matriculate into baccalaureate programs without difficulty. Secondly, health care facilities should promote higher education while encouraging nurses with less than a baccalaureate degree to enroll in a completion program within five years of hire by assisting with education expenses. Nurses should be rewarded for completing a BSN with an increase in salary and opportunities for advancement. Thirdly, there should be an alliance between public and private funding sources with the goal of increasing enrollment into BSN programs by offering financial assistance and

programs to forgive educational loans. Further, academic programs must be expanded by hiring additional faculty, increasing clinical opportunities, and utilizing available technology for instruction. Fourthly, federal, state, and private funding sources need to expand loan and grant opportunities for nurses seeking a second degree. Fifthly, partnerships should be established between nursing schools and other health care related academic programs. The focus of this collaboration should lead to the development of a curriculum that offers opportunities for combined classrooms and clinical training. Finally, leaders in nursing education, health care facilities, community leaders, and primary and secondary academic leaders should collaborate in efforts to recruit a diverse nursing student body (IOM, 2010).

**Process of expert opinion review.** The AGREE instrument is used in clinical practice to provide a framework for the assessment of the quality of clinical practice guidelines (AGREE Collaboration, 2001). Clinical practice guidelines are used in clinical settings to help make clinical decisions, as well as to formulate health care policy. Quality in guideline development is determined by addressing all potential biases, guaranteeing the guideline is feasible for practice, and ensuring both internal and external validity (National Collaborating Centre for Methods and Tools, 2011). As already mentioned, no clinical practice guideline exists for removing barriers and providing incentives for RNs continuing their education. Although the AGREE tool was developed for the appraisal of clinical practice guidelines, the process was beneficial in assessment of the IOM recommendations for continuing nursing education to the BSN level and above.

The AGREE instrument has a total of 23 questions and is organized according to six domains including: *scope and purpose, stakeholder involvement, rigor of development, clarity of presentation, applicability, and overall guideline assessment* (AGREE Collaboration, 2001).

Each domain is rated on a 7 point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Each domain's score is then calculated independently. These scores aid in the discussion of strengths and weaknesses of the particular guideline and should be considered in the implementation of guidelines into nursing practice.

**AGREE results.** The AGREE tool results were as follows. Firstly, *scope and purpose* was rated 100%. The IOM recommendation clearly defined the objectives, health benefits, and target population. Secondly, *stakeholder involvement* was rated 90% because patient voices, involvement in guideline development, and preferences were missing. Thirdly, *rigor of development* was rated at 83% because a specific procedure for updating this recommendation was not mentioned. Fourthly, *clarity of presentation* was rated at 71%. This score reflects the fact that a recommendation was used in this tool and not a guideline. Question 16 speaks directly to the “management of the condition or health issue,” which is not applicable. And lastly, *applicability* was rated at 76% because concerns exist regarding the development committee matrix, including members who may benefit monetarily, and there is no discussion of potential conflicts of interest. Domain scores are listed in Table 3.

Table 3

*AGREE Tool Results*

Domain	%
Domain 1	100%
Domain 2	90%
Domain 3	83%
Domain 4	71%
Domain 5	76%
Domain 6	86%

**Overall findings.** The results of the AGREE tool support the IOM's recommendation. Benefits for both health care facilities and patients were evident in the extensive literature search and review from the IOM. Health care facilities can confidently recommend the advancement in education based on the rigor of the IOM report.

### **Ranking and Type/Level of Evidence**

Various levels and types of evidence are used to support evidence-based practice (EBP). These include peer-reviewed journal articles, expert opinions, meta-analysis studies, case studies, quality improvement data, non-research studies, gray literature, as well as many others. Several classification systems exist for determining the quality and scientific rigor of evidence in EBP. These classification systems vary in structure involving levels and gradations. Ranking levels in these systems range from three to eight or more. In ranking evidence in the research process, it is important to choose the ranking system that is most relevant to the type of evidence assessed. For purposes of this systems change project literature review, *Melnyk's Hierarchy of Evidence*

system was used (Oncology Nursing Society, 2009). In *Melnyk's Hierarchy of Evidence*, evidence is ranked from Level I to Level VII and assigned a gradient from strongest to weakest.

Due to the nature of phenomenological research studies, they often rank low (weak) in classification systems. Despite the weak ranking, qualitative research can provide significant data when quantitative studies are not available to support nursing practice. Using *Melnyk's Hierarchy of Evidence*, all seven studies rank level V (Adorno, 2010; Delaney & Piscopo, 2004; Kalman, Wells, & Gavan, 2009; Leonard, 2003; Lillibridge & Fox, 2005; Megginson, 2008; Zuzelo, 2001). The meta-analysis study ranks level VI (Altmann, 2011), and the IOM report (2010) ranks lowest on the scale at level VII. According to *Melnyk's Hierarchy of Evidence*, these studies and recommendations provide neutral-weakest evidence.

### **Summary**

A thorough review of the available literature included multiple peer-reviewed journals, a single meta-analysis study, and the IOM report (2010). Although there were weaknesses, the literature review also revealed several valid and reliable studies. Authors of these studies identified both barriers and incentives of nurses returning to school to further their education and were used in the development of the survey tool and the recommendations that were made to the health care facility for the process of removing these barriers.

Because some health care facilities and leaders in nursing education now demand that nurses continue their education past an associate or diploma degree in nursing, it is important to look at why nurses are currently not choosing to do so and have not done so in the past. Lack of significant clinical research in this area creates a gap in the clinical knowledge related to why only 50% of the nation's nurses are educated at a BSN level or above. The studies available in the literature have increased over time but are not sufficient in depth or understanding.



According to Orsolini-Hain (2012) a few studies were published in the 1980s, and 18 studies were published from 1990 to 2010. More recent studies exist but few have been published since the IOM recommendation in 2010, leaving health care leaders scrambling for answers as to how to address the nurse education issue, how to solve the problem, and how to reach the IOM's goal of achieving 80% of the workforce educated at a BSN level or beyond by 2020.

As health care facilities pursue the goal of reaching 80% of their nursing workforce educated at a BSN level, special attention must be given to nurses as individuals and their perceptions to personal barriers and incentives to returning to school. According to Altmann (2011), this can be accomplished in several ways including the distribution of questionnaires, surveys, or focus groups. These methods allow for the identification of the lived experience of RNs as they make this pivotal decision in returning to school (Adorno, 2010). Health care organizations can use the data provided in the results of these various methods to develop interventions that will help in removing the perceived barriers as well as provide incentives to nurses to pursue a BSN.

### Chapter 3: Methodology

In this chapter the project design and methodology are discussed. An evidence-based implementation plan including a cost benefit analysis, and return on investment is outlined. The chapter concludes with a description of the collaborative process used in the research setting as well as various ethical considerations important to this project.

#### **Project Design and Methodology**

##### **Timeline**

The initial meeting to present the proposed SCP to facility administration was held in the spring of 2013. After a verbal agreement between the researcher, the chief nursing officer (CNO), and the director of human resources regarding the purpose of the project, a review of the literature commenced. The review of the literature was completed in May 2013. The summer of 2013 focused on the development of the survey that would be used for data collection. The IRB process lasted from September 26, 2013 to December 10, 2013. The survey was distributed to 21 direct patient care departments on December 13, 2013 and gathered on December 24, 2013. The survey data were tabulated on January 10, 2014. The data were then sent to the statistician on January 12, 2014. On January 17, 2014, a review of the data analysis with the statistician was completed. Data analysis and preliminary recommendations were presented to facility administration on February 17, 2014, and April 14, 2014.

##### **Methodology**

A quantitative research design was identified as most appropriate to understand the nurses perceived barriers to returning to school for a BSN. The literature review in Chapter 2 discussed the numerous qualitative studies completed in the last decade that address barriers to completing a BSN and identifies the gap in quantitative studies on this topic. Quantitative

researchers use their senses to gather empirical evidence either directly or indirectly (Polit & Tatano Beck, 2008). A positivist paradigm was followed with a structured instrument used to collect data from the staff nurses.

### **Recruitment Process**

The direct patient care departments identified to participate in the survey data include: Hospice, Home Care, Dialysis, Skilled Nursing Unit, Acute Rehabilitation Unit, Emergency Department, Gastro-Intestinal Procedural Unit, Cardiac Catheterization Procedural Unit, Same Day Surgery, Post-Anesthesia Recovery Unit, Procedure Recovery Unit, Surgery, Obstetrics, Pediatrics, Clinical Administration (Float Pool, Peripherally Inserted Central Catheter Team, House Supervisors), Medical Acute Care Unit, Surgical Acute Care Unit, Orthopedics, Acute Mental Health Unit, Acute Cardiac Care Unit, and Critical Care Unit.

### **Survey Tool**

A survey was developed by the researcher with input from the site mentor, program advisor, and several staff nurses (Appendix A). Questions 4 and 5 are only applicable to nurses who are enrolled in or have been accepted into a BSN program, as these items ask the respondent to identify the college or university and the estimated date of program completion. Question 6 is only applicable to those not currently enrolled in or accepted into a BSN program and asks whether they have considered enrolling. The final 15 statements that use a Likert scale format were to be completed by all respondents.

In October 2013, department directors and nurse managers attended a presentation regarding the SCP where a draft of the survey was offered for review. The researcher obtained feedback from those in attendance and made revisions accordingly. The survey was then submitted and approved by both the facility and the university's IRB.

Prior to the survey distribution, the researcher's site mentor contacted all department directors and nurse managers, reminding them that the survey would be distributed to each department on December 13, 2013 through December 23, 2013. All nurses with an associate's degree, diploma, and licensed practical nursing degree were invited to participate in the survey. Surveys, answer sheets, envelopes, pencils, and a survey drop box were distributed to each direct care department on December 13, 2013. The words "BSN survey" were written on each departments huddle board along with the survey end date and the name of the researcher. Doing so assured that they survey would be discussed at each department huddle. Department huddles are held a minimum of once a day.

Completed and uncompleted surveys were collected on December 24, 2013. A Scantron machine was used to tabulate the survey data. A data set was generated and a printout was obtained. The printout was also saved to a USB drive for data analysis purposes.

Descriptive statistics were used to analyze the nurses' perceived barriers to returning to school for a BSN education. This includes statements 8 through 22 on the survey. Survey participants responded to each of the 15 statements by choosing one of five responses. These responses include: A (*Strongly disagree*), B (*Somewhat disagree*), C (*Neutral*), D (*Somewhat agree*), and E (*Strongly agree*). Each response was then ranked on an ordinal scale. Variables that had values of A, B, C, D, and E were recorded using numerical values so that A=1, B=2, C=3, D=4, and E=5. These numerical values were then used to analyze the data and rank the nurses' barriers from strongest to weakest.

## Evidence-Based Project and Implementation Plan

### Resources

Resources included the financial support to purchase copy paper, printer ink, Scantron answer sheets, paper clips, and pencils to complete the survey as well as boxes for the respondents to return the completed surveys. A statistician assisted in the data analysis portion of the SCP and was paid for by the researcher.

**Cost benefit analysis.** Supporting nurses to pursue a baccalaureate degree has a monetary cost to this North Iowa health care facility. The facility currently allows tuition assistance of up to a total of \$12,000 for each nurse entering a BSN completion program. After the BSN is obtained, the nurse is also given an hourly differential of \$1.00 per hour. With only 25.5% of the 400 nurses currently educated at a BSN level, the cost of the tuition alone to reach the 80% recommendation would be \$2,616,000.00. The additional cost of the education differential for the new BSN nurses would be approximately \$453,440.00 per year. If the facility were paying for the work completed by this project researcher as part of this SCP, an additional cost to the facility would be the salary of the staff researcher for the development and management of this project. With the expectation that 1,000 hours would be spent on the project at a cost of \$50.00 an hour, the total cost is \$50,000. The grand total of the facility expenses to reach the goal of having a minimum of 80% of nurses with a BSN or above by 2020 would be \$786,573.33 per year or \$4,719,440.00 over a 6-year period.

There are significant benefits to increasing the proportion of facility nurses with a BSN within a health care organization. It is well documented in the literature that not only are patient outcomes and safety improved, but retention rates of nursing staff are enhanced. This health care facility currently has a turnover rate of 10% per year (40 RN's). Given the estimated average

cost of \$40,000 per nurse turnover, this turnover rate is costing the facility \$1.6 million per year (Buerhaus, Staiger, & Aurebach, 2000).

Studies linking nurse education levels to patient morbidity, mortality, and failure to rescue rates are found throughout the literature over the last four decades. Aiken and colleagues, from the University of Pennsylvania School of Nursing, have published several studies that relate nurse education and organizational environment to improved patient outcomes (Aiken, 2011; Aiken et al., 2011; Aiken et al., 2014). Seminal research such as this sparked the IOM and the RWJF to launch a 2-year initiative beginning in 2008. This initiative included several committee members that looked closely at these data and subsequently released a report in 2010 detailing several recommendations to advance the nursing profession. One of these recommendations was to increase the proportion of registered nurses with a BSN to 80% by 2020 (IOM, 2010). A statement urging health care facilities educational institutions, educational funding bodies, and government agencies to work collaboratively to meet this goal and support each other in doing so was also included in this IOM recommendation.

Aiken and colleague's concluded that when health care facilities increased their BSN rate by as little as 10%, the failure to rescue (FTR) rate and mortality rate decreased by 4-10% (Aiken et al., 2009; Aiken et al., 2011). Extrapolating this research to this North Iowa health care facility, the goal is to increase the BSN rate by 54.5%, which has the potential of decreasing the FTR and mortality rates by 21.8%-54.5%.

**Return on investment (ROI).** With a recent down-turn of the U.S. economy, health care facilities are challenged with making wise spending decisions (Stone, Smith, & Frick, 2010). Implementing a SCP in a health care organization comes with a cost. In the case of increasing the proportion of BSN prepared nurses to 80% by 2020, the cost is significant. To illustrate and

justify the expenses associated with increasing the education level of nurses, a return on investment must be completed. According to Finkler, Kovner, and Jones (2007) an ROI measures the yield relative to the investment. Furthermore, the human capital perspective believes that businesses and organizations will obtain a maximum ROI by investing in the education of their workforce (Becker, 1965).

Table 4 illustrates the SCP's ROI. The ROI is calculated by subtracting the total costs from the total benefits and then dividing this number by the total costs and multiplying this value by 100. Specific to this SCP, and based on the minimum decrease in mortality and FTR rates of 4%, the ROI is calculated by subtracting \$786,573.00 (costs) from \$32,679,621.40 (benefits). This number equals \$31,893,048.10. This number is then divided by \$786,573.00 (costs) to equal 40.5468, or rounded to 41%. According to Stone, Smith, and Frick (2010) a ROI of 10-25% may be viewed positively. With a minimum ROI of 41%, it is clear that investing in nursing education at this health care facility is certainly cost effective.

Table 4

*Return on Investment*

Benefits	
Human Life Value	\$2,082,035.00
Current Failure to Rescue & Mortality = 72/yr.	
Reduce Failure to Rescue Minimum of 21.8% (x 72 total)	171.784
15.696 Lives Saved x Human Life Rate	\$32,679,621.40
Expenses	
Tuition	\$12,000.00
Total needed by 2020 = 218 (x Tuition)	\$2,616,000.00
Hourly raise after completion	\$1.00
218 Nurses x \$2080/yr. raise	\$453,440.00
Cost of research = \$50/hr. x 1,000 hours	\$50,000
Turnover 10% of 400 total @ \$40,000 per nurse	\$1,600,000.00
Total 6 yr. expenses	\$4,719,440.00
Total Costs Per yr.	\$786,573.33
ROI Total Dollar (Lives Saved - Total Costs)	\$31,893,048.10
ROI Percent Increase	40.55%

*Note.* X=multiplied by; yr. = year; hr. = hour

**Support from Site**

With recent attention to the IOM’s recommendation of reaching the goal of having a minimum of 80% of nurse’s education at a BSN level or above, this health care facility was in full support of the SCP. The CNO, director of human resources and site mentor provided verbal encouragement during the project development and implementation. Additional support was received from other members of the human resource department. This backing included



responding to emails and telephone calls from the researcher to obtain needed information and data such as the current BSN rate and number of nurses currently employed in each of the 21 direct patient care departments.

### **Ethical Considerations**

Using a survey method to collect data creates some ethical considerations. Consequently, strict attention was taken in providing a survey that allowed respondents to remain anonymous. The first page of the survey included the following statement:

Your responses to this survey will be anonymous and results will be presented in a way that no one will be identifiable. There is no way for the researcher or others at the health care facility to identify who has or has not chosen to participate in this survey. Your decision whether or not to participate will not affect your relationship with the researcher or the health care facility. You may skip any item that you do not wish to answer.

Contact information was then provided for each of the following: the researcher, the researcher's advisor at St. Catherine University, and the facility's IRB. Contact information included telephone numbers as well as email addresses.

Another ethical consideration was related to the following questions: Why is it important to increase the proportion of BSN prepared nurses to 80% by 2020? Why is it important to hear the voices of those nurses who are not currently educated at a BSN level or above? Why is it important for this facility to recognize the perceived barriers of these nurses in increasing their education level to a BSN or above? Specifically, since employment opportunities in nursing are often related to the nurse's education level, it is reasonable to assume that nurses educated at a BSN level and above are working in jobs that provide higher wages, thus an improved quality of life. According to Lehrer (1991), nurses with a BSN have greater career opportunities including

positions in management and leadership. These opportunities often lead to higher paying nursing positions.

### **Role of the Researcher**

In conducting any type of research, it is important for the researcher to consciously eliminate or disconnect from all preconceived notions, assumptions, and personal biases. Potential biases of this research include the researcher's experiences as a nursing student and as a RN. The researcher received her ADN as a young, working mother. She finished this program with a newborn and a three-year-old. Three years later, with another newborn, she decided to pursue her BSN while working full-time. Ten years after receiving her BSN, she graduated with a master's degree in nursing leadership and management. Two years after that, she received a post-master's degree in nursing education and at the same time was pursuing a doctoral education. Throughout all of her post-ADN education she maintained a full-time nursing position.

Considering the researcher received 10 years of full-time nursing education while both working full-time and parenting three young children, it might lead one to discount the many perceived barriers that nurses may identify with when being questioned about returning to school to receive their BSN. According to Creswell (2003), when doing research one must use a personal lens to filter all data collected in a study. To decrease the potential for influence from the researcher, it is important to continuously monitor subjectivities and pay close attention to the reporting and transcribing of data obtained from the study participants. Above all, these data must be reported carefully and objectively (Glesne, 1999).

In this study the potential for bias is of concern in the data analysis and development of the recommendations. Care was taken to avoid bias at this point in the process by consulting with

staff nurses whom have recently completed a BSN. A group of three nurses with a BSN gathered and contributed to the development of recommendations.

### **Summary**

When making a systems change that involves a particular group of employees, it is important to seek their assistance in understanding their perceptions of the barriers to making this change. In this case, an anonymous survey tool was used to gain insight into the nurses' barriers to returning to school. It is also imperative to consider the costs associated with a systems change project. A cost-benefit analysis was used to determine the organizational costs of the project. This analysis concluded that supporting the systems change project and investment in the facility nurses education will yield a considerable positive financial result. It is always prudent to comprehensively address ethical considerations as well as potential bias when developing a systems change project.

## Chapter 4: Results

Consistent with the SCP design and methodology, a survey tool was distributed to 21 direct patient care departments at this health care facility. Data were compiled and analyzed to determine the nurses perceived barriers to returning to school for a BSN education. These data include both nurses currently enrolled in or accepted into a BSN program and those not currently enrolled in or accepted into a BSN program

### Results and Data Analysis

#### Participants

The sample included 103 voluntary participants from 287 nurses that were eligible to participate in the survey. The response rate to the survey was 36%. As mentioned in Chapter 3, the sample included nurses from each of the direct patient care departments in the facility.

#### Statistical Method

All statistical analysis was performed using the IBM software program, SPSS 21.0. For survey questions 1, 2, and 7, Pearson Chi-square tests were used to determine whether there was a statistical difference between the responses of those nurses enrolled in or admitted to a BSN program and those nurses not enrolled in or admitted to a BSN program. *T tests* were used on each of the grid items to determine whether there was a statistically significant difference in the responses between subjects who are currently enrolled in a degree program versus those who are not.

Descriptive statistics are provided for each survey item. Firstly, the characteristics of the overall sample are described for items 1, 2, 3, and 7. Secondly, descriptive statistics for items 4 and 5, for those currently accepted into or enrolled in a BSN program, and item 6, for those not accepted into or enrolled in a BSN program are included. Lastly, descriptive statistics are

provided for items 8-22 to offer information about the level of endorsement for each of the barriers separately for those currently accepted into or enrolled in a BSN program and those not accepted into or enrolled in a BSN program.

### **Survey Results**

Survey results were tabulated using Scantron software to produce a spread sheet. The spread sheet was reviewed by both the researcher and the statistician to look for potential inaccuracies. The original surveys were compared to the spread sheet to assure the data were accurate. Next the spread sheet data were entered into IBM SPSS 21.0. Statistics used included: frequencies, cross-tabulations, and Pearson Chi-Square tests. Each of the descriptive statistics are available for the entire sample as well as individually for those currently in a BSN program and those who are not; but selected data sets were chosen to be included in this paper.

Table 5 presents the ages of the sample population. As shown in this table, the ages of the nurses are fairly evenly distributed across each of the age groups. Hence, each age group along the continuum appears to have representation in this sample as participants indicate ages from the categories 20 to 28, and 56 and older. The length of service at this North Iowa facility is illustrated in Table 6. As seen in this table, the majority of the participants (61%) have a length of service of 10 or fewer years at the institution. Participants were asked whether they are currently enrolled or accepted into a BSN program, and if so, the name of the college or university as well as their estimated date of the programs completion (Table 7). This information is beneficial to the facility in several ways. Data collected indicates that 33 nurses are currently on track to complete a BSN by 2018, which is important in forecasting the likelihood of meeting the 80% by 2020 goal.

Table 5

*Sample with Age as a Variable*

		<b>Age</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-28	25	24.3	24.3	24.3
	29-37	19	18.4	18.4	42.7
	38-46	20	19.4	19.4	62.1
	47-55	24	23.3	23.3	85.4
	56 or older	15	14.6	14.6	100.0
Total		103	100.0	100.0	

Table 6

*Sample with Length of Service as a Variable*

<b>Length of service at North Iowa health care facility (in years)</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10	63	61.2	61.2	61.2
	11-20	14	13.6	13.6	74.8
	21-30	17	16.5	16.5	91.3
	31-40	8	7.8	7.8	99.0
	41 or more	1	1.0	1.0	100.0
	<b>Total</b>	<b>103</b>	<b>100.0</b>	<b>100.0</b>	

Table 7 also provides information that could be helpful in developing a partnership with an academic facility to provide on-site RN-BSN courses. According to the AACN, there are currently 705 schools offering RN-BSN programs in the United States (AACN, 2013a). Since 30% of nurses who are currently enrolled in or accepted into a BSN program have chosen the Mt. Carmel School of Nursing, more information regarding the participants' choice to attend this program over all others would be helpful. This topic could be explored further by using a focus group research method. The choice for this college may be related to the current collaboration between the facility and Mt. Carmel School of Nursing to provide medical library services for the facility.

However, it was surprising that only 21% of nurses currently accepted into or enrolled in a BSN program have chosen the University of Iowa. This state school offers affordable tuition with an average cost of \$12,000 for the completion program, which is equivalent to what the facility provides in educational loan assistance. Potential barriers to enrolling in the University of Iowa may be the admission and program requirements. According to the University's web page (<http://www.nursing.uiowa.edu>), the program is primarily online but some travel is required to

meet the requirements for the face-to-face components. The university also requires a minimum cumulative grade point average (GPA) of 3.0 for acceptance into the program. Therefore, nurses with a lower GPA would immediately be excluded from consideration for enrollment into this nursing program which is highly respected within the state and this organization.



Table 7

*College or University Enrolled in or Accepted into*

College / University Enrolled or Accepted	Estimated Completion
Allen College (4)	2015 - 2018
Anna Maria College (3)	2015 - 2018
Briar Cliff (1)	2014
Chamberlain College (4)	"unsure" - 2014
University Of Iowa (7)	2014 - 2016
University Of Phoenix (1)	2014
Mount Carmel (10)	2014 - 2017
University of Texas - Arlington (2)	2015 - 2018
Accepted to both Mount Carmel & University of Texas - Arlington (1)	2015

*Note:* (x) = number of students

Hossler and Gallagher developed a comprehensive model that has provided the foundation for research that examines the process of students choosing a college. This model is referred to as Hossler and Gallagher’s College Choice Model and includes three phases: predisposition, search, and choice (Hossler, Schmit, & Vesper, 1999). Utilizing this model to assess the nurses’ choices of RN-BSN programs could assist in the development of an on-site program in the future.

Those participants not currently accepted into or enrolled in a BSN program were then asked if they had considered enrolling. Of those, 37 participants reported that they had considered enrolling, with 26 participants saying that they had not considered enrolling in a BSN

program. These results indicate that for those who have considered enrolling but have not done so, the barrier items have likely been a factor.

The average age of the nurses at the institution is 45. Of the respondents, 19% reported that they are between the ages of 38 and 46. The average age of the nurse in the sample is consistent with the average age of the nurse at the institution. Consequently, this indicates that the survey is likely representative of the facility's nursing workforce.

Approximately 38% of the survey participants are at least 47 years old. This has potentially serious implications for this facility in several ways. According to HRSA (n.d.), approximately one-third of the nursing workforce will reach retirement age in the next 10-15 years. This brings forth concerns regarding the loss of leadership and experiential knowledge that is often provided by seasoned nurses. This will challenge health care facilities to improve retention in this population of nursing staff. Creating new roles that highlight the seasoned nurses' experiences and knowledge is one way to provide an incentive for nurses to stay in the workforce. Also, allowing flexible scheduling options for this population may also discourage retirement.

Question 7 asks "*Are you aware of the programs available at this facility (tuition reimbursement of up to nine semester hours per fiscal year and the scholars' program that provides tuition assistance of up to \$12,000 for a bachelor's degree?)*" Of the 99 participants who responded to this question, 68 reported that they were aware and 31 reported that they were not aware of the tuition assistance programs available for staff nurses at the facility. Of the 31 nurses who reported that they were not aware of the available resources, two reported that they are currently enrolled in or accepted into a BSN program and 29 reported that they are not currently enrolled in or accepted into a BSN program.

With issues related to finance as the top barrier for both nurses enrolled in or accepted into a BSN program and those not enrolled in or accepted into a BSN program, this misconception could have grave implications for this facility. Failure to disseminate the information regarding available resources for BSN tuition expenses has likely contributed to the low BSN rate at the facility. In a study by Zuzelo (2001), nurses viewed tuition expenses as a significant stressor to both themselves and significant others. Lack of financial support from organizations can deter nurses from enrolling in school as well as delay the nurses' progression through RN-BSN programs.

### **Data Analysis**

A comparison of those currently enrolled in or accepted into a BSN program and those not currently enrolled in or accepted into a BSN program was completed. A relationship between the participants' years of service with the health care facility and the survey responses as well as the age of the participant and the survey responses, was also analyzed. A cross-tabulation between the age and length of service of the respondents at the facility is shown in Table 8. The relationship between the age of respondents and their length of service could help explain the results of this study. Statistical tests of the relationship between age and length of service at this health care facility are highly significant (all  $p$ -values  $<.001$ ). This is for tests that are both interval and ordinal. The two variables, age and length of service, are highly inter-correlated. These results suggest that from a statistical point of view, these two variables are close to measuring the same construct. It is known that nurses who are younger will have shorter lengths of service, and nurses who are older would have the ability to have longer lengths of service, however it is also true that some of the older nurses have been in the facility for fewer years.

Approximately 61% of respondents reported their length of service at the facility to be 10 years or fewer. Of that group, approximately 40% reported their age to be between 20 and 28 years and approximately 27% reported their age to be between 29 and 37 years. With a total of 67% of respondents 37 years old or younger, it would benefit the facility to consider concentrating their efforts in encouraging BSN enrollment as well as retention on this population of nurses. Prior to implementing an intervention, it would be important to assess factors such as the nurse's intent to stay in the organization. There are several conceptual models that can be used in this assessment process. Frameworks such as anticipated turnover model, conceptual model of behavioural intentions, and determinants of nurse intention to remain employed model are examples of conceptual models that a facility could use to guide efforts to retain current staff (Cowden, Cummings, & Profetto-McGrath, 2011). This knowledge will lead the facility in making decisions based on receiving the maximum ROI for the tuition expenses.

Table 8

*Cross-Tabulation of Age and Length of Service*

Length of service at North Iowa health care facility (in years)						
Age	0-10	11-20	21-30	31-40	41 or More	Total
20-28	25	0	0	0	0	25
29-37	17	2	0	0	0	19
38-46	10	9	1	0	0	20
47-55	8	2	12	2	0	24
56 +	3	1	4	6	1	15
Total	63	14	17	8	1	103

Specifically, one way to encourage retention of this young group of nurses is to consider a reimbursement scheme that increases for each year the nurse stays at the facility. Currently, the facility will provide an educational loan up to \$12,000 for RN-BSN programs. The nurse must work one year for every \$2,500 borrowed (total of five years). A suggestion would be to provide an incremental increase in loan assistance for every additional year the nurse stays at the facility past their initial 5-year commitment. This may encourage nurses who are interested in a BSN program that costs more than the allotted \$12,000 to return to school.

Table 9 reports the relationship between barrier ratings and age, for those not currently enrolled in or accepted into a BSN program while, Table 10 shows the relationship of barrier ratings and age, for those currently enrolled in or accepted into a BSN program. The relationship of each of the grid items to both age and tenure was computed. The only item where these two variables show a difference in the significance of relationship with the grid items is on the item number 17 (*My spouse or significant other is not supportive of my educational goals*). For this

item age is not significantly related; however, tenure at the facility is related. Those nurses with a greater length of service at the facility agreed more with this item. For all other grid items, these two variables (age and tenure at the facility), if the relationship with age is significant, so is the relationship with tenure. Also, if the relationship for age with that particular grid item is not significant, then so, too, is a relationship for that item with tenure.

As can be seen in Tables 9 and 10, a number of the items reflecting barriers show a significant relationship with age, while others do not. Further, when a barrier item has a significant relationship with age, it always shows a higher rating of the importance of the barrier with increasing age. These barriers are perceived more strongly as the nurses' ages' increase. For items where age is not significantly related this means that the barrier item is perceived at the same level of strength across the age groups, and nurses of all ages rated it equally. It is interesting to compare which barriers become stronger with age versus which barriers are perceived similarly across the age groups.

Of particular interest is item number 13, *I am uncomfortable with computer technology and feel I need to update my skills to pursue a BSN*. In this item, it is clear that the older the nurse is, the more uncomfortable he or she is with computer skills and technology. To remove this barrier to returning to school, the facility could offer courses on basic computer skills with attention to navigating an online classroom and scholarly writing.

Another compelling response comes from item number 19, *I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree*. One may expect the younger nurses to find this statement less of a barrier than the older nurses. This was not the case in this organization. In fact, each of the age groups showed a similar mean (3.82-4.47). Again, this speaks to the fact that the top barrier for all nurses at this

health care facility is related to finance issues, including funding the degree, and getting a sufficient ROI for the costs associated with the degree.

Table 9

*Relationship of Barrier Ratings and Age*

Those not currently enrolled or accepted into a BSN program						
	Age 20-28	Age 29-37	Age 38-46	Age 47-55	Age 56 +	
	(n=16)	(n=10)	(n=12)	(n=17)	(n=15)	
Barrier item*	Mean	Mean	Mean	Mean	Mean	Significance of Linear Trend for Age
<b>8. I am not interested in pursuing a degree in Nursing.</b>	1.63	1.80	2.42	3.47	4.00	<b>&lt;.001</b>
<b>9. I am too old/close to retirement to pursue another degree.</b>	1.00	1.10	2.50	3.59	4.27	<b>&lt;.001</b>
<b>10. There is not a program close enough to (name of city) that I am interested in.</b>	1.94	1.67	2.58	3.00	2.53	<b>.034</b>
<b>11. I am not interested in pursuing an online degree.</b>	1.50	2.22	2.67	3.35	1.27	<b>&lt;.001</b>
12. I do not have access to a computer or the internet at home.	1.25	1.44	1.33	2.12	1.27	.419



<b>13. I am uncomfortable with computer technology and feel I need to update my skills to pursue a BSN.</b>	1.13	1.22	2.42	2.59	2.47	<b>&lt;.001</b>
14. I do not feel I could manage my obligations at work while pursuing my degree.	3.38	3.22	3.92	3.65	3.33	.819
15. My current work schedule would not allow me to attend or complete a BSN program.	3.00	2.33	4.00	3.59	3.20	.230
16. I am concerned that I would not be able to balance school with my family obligations.	3.50	4.00	4.08	3.29	3.47	.582
17. My spouse or significant other is not supportive of my educational goals.	1.75	2.44	2.33	2.71	2.40	.150
18. I cannot afford to pay for college costs.	3.56	4.11	3.67	3.94	3.80	.702

19. I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree.	4.31	4.44	4.17	3.82	4.47	.762
20. I am not familiar with the process of finding a good academic program in my field.	2.56	2.67	3.75	2.88	2.20	.617
21. I am not sure what I need to do to get accepted into a program.	2.44	2.56	3.42	2.29	2.47	.823
22. I am not sure how to approach this subject with my supervisor at work.	2.31	1.78	3.00	2.47	2.20	.838

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*Note:* Barriers that showed a significant linear trend are in boldface

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Table 10

*Relationship of Barrier Ratings and Age*

Those Currently Enrolled in or Accepted into a BSN Program					
	Age 20-28	Age 29-37	Age 38-46	Age 47-55	
	(n=6)	(n=9)	(n=8)	(n=7)	
	Mean	Mean	Mean	Mean	Significance of Linear Trend for Age
8. I am not interested in pursuing a degree in Nursing.	1.33	1.00	1.00	2.57	.014
9. I am too old/close to retirement to pursue another degree.	1.00	1.00	1.25	2.71	.003
10. There is not a program close enough to (name of city) that I am interested in.	1.50	1.67	1.88	1.86	.581
11. I am not interested in pursuing an online degree.	1.00	1.22	1.25	1.71	.107
12. I do not have access to a computer or the internet at home.	1.50	1.00	1.50	1.29	.972

13. I am uncomfortable with computer technology and feel I need to update my skills to pursue a BSN.	1.00	1.44	1.13	1.71	.256
14. I do not feel I could manage my obligations at work while pursuing my degree.	1.83	2.22	2.00	2.00	.952
15. My current work schedule would not allow me to attend or complete a BSN program.	1.83	1.89	2.25	2.14	.590
16. I am concerned that I would not be able to balance school with my family obligations.	2.00	2.89	3.13	3.29	.104
17. My spouse or significant other is not supportive of my educational goals.	1.00	1.33	1.13	2.43	.019

18. I cannot afford to pay for college costs.	2.50	3.11	4.25	4.00	.018
19. I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree.	2.71	4.00	4.38	4.43	.010
20. I am not familiar with the process of finding a good academic program in my field.	1.50	2.00	2.00	1.71	.816
21. I am not sure what I need to do to get accepted into a program.	1.33	1.33	1.50	1.29	.976
22. I am not sure how to approach this subject with my supervisor at work.	2.00	1.56	1.50	1.71	.689

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**Nurses Perceived Barriers to Returning to School**

Table 11 illustrates the perceived barriers of the 33 respondents who are currently enrolled in or accepted into a BSN program. The table lists the barriers in order from strongest to weakest. With the strongest barriers in this population related to role strain and financial concerns, the facility must take immediate action to support and encourage their progression through their individual programs. Making immediate policy changes regarding preferential scheduling, increasing the BSN differential, and improving the available tuition assistance benefits would remove many of these barriers.

Table 11

*Perceived Barriers of Nurses Currently Enrolled in or Accepted into a BSN a Program*

Barrier Item	Mean
1. I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree	3.90
2. I cannot afford to pay for college costs	3.50
3. I am concerned that I will not be able to balance school with my family obligations	2.87
4. Results were equal with the following two questions;	
a. I do not feel I could manage my obligations at work while pursuing my degree	2.03
b. My current work schedule would not allow me to attend or complete a BSN program	2.03
5. I am not familiar with the process of finding a good academic program in my field	1.83
6. There is not a program close enough to (name of city) that I am interested in	1.73
7. I am not sure how to approach this subject with my supervisor at work	1.67
8. Results were equal with the following two questions;	
a. I am too old/close to retirement to pursue another degree	1.47
b. My spouse or significant other is not supportive of my educational goals	1.47

9. I am not interested in pursuing a degree in nursing	1.43
10. I am not sure what I need to do to get accepted into a program	1.37
11. I am uncomfortable with computer technology and feel I need to update my skills to pursue a BSN	1.33
12. Results were equal with the following two questions;	
a. I am not interested in pursuing an online degree	1.30
b. I do not have access to a computer or internet at home	1.30

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From the 70 respondents who are not currently enrolled in or accepted into a BSN program, the barriers in order from strongest to weakest are found in Table 12. The strongest barriers in this group of respondents are also related to financial concerns and role strain. This group also reported that locating a BSN program and the enrollment process were also significant barriers. Providing a facility education specialist to assist with these processes will be helpful in removing this barrier.



Table 12

*Perceived Barriers of Nurses Not Currently Enrolled in or Accepted into a BSN Program*

Barrier Item	Mean
1. I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree	4.22
2. I cannot afford to pay for college costs	3.80
3. I am concerned that I will not be able to balance school with my family obligations	3.61
4. I do not feel like I could manage my obligations at work while pursuing my degree	3.51
5. My current work schedule would not allow me to attend or complete a BSN program	3.28
6. I am not familiar with the process of finding a good academic program in my field	2.78
7. I am not interested in pursuing a degree in nursing	2.74
8. I am not interested in pursuing an online degree	2.65
9. I am too old/close to retirement to pursue another degree	2.60
10. I'm not sure what I need to do to get accepted into a program	2.59

11. There is not a program close enough to (name of city) that I am interested in	2.41
12. I'm not sure how to approach the subject with my supervisor at work	2.38
13. My spouse or significant other is not supportive of my educational goals	2.32
14. I'm uncomfortable with computer technology and feel I need to update my skills to pursue a BSN	2.01
15. I do not have access to a computer or internet at home	1.51

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### Summary

The findings of this study suggest that nurses at this North Iowa health care facility perceived the barriers to returning to school as primarily related to two categories: finance and role strain, with finance being the top barrier in each age group of nurses. Both of the groups, those currently enrolled in or accepted into a BSN program and those not currently enrolled in or accepted into a BSN program, reported that they agree that the statements that included ROI of a BSN, financing the BSN, family obligations, and work schedule currently influence or may influence their decisions to pursue a BSN.

## Chapter 5: Discussion

Administrators and staff of the health care facility that was the site for this SCP expressed interest in improving its proportion of BSN prepared nurses from 25.5% to 80% by 2020. The SCP was conceived as a way to investigate and understand the nurses' perceived barriers to returning to school. The first step in this project was to assess these barriers from the perspectives of the nurses in the facility. Nurses with an ADN who are currently enrolled in or accepted into a BSN program and those not currently enrolled in or accepted into a BSN program were surveyed. This SCP was designed to assess perceived barriers to returning to school for a BSN, analyze the data, and present findings to the facility administration along with recommendations for removing these barriers. Findings of this study appear to refute large generational differences between participants in regard to finance issues. Findings of this study also found that there were some different barriers to returning to school depending on age.

A dissemination plan has been recommended from the findings of this project. Recognizing the nurses' perceived barriers and implementing the recommendations for removing the barriers is in alignment with the findings in the literature. This approach has been successful in increasing the proportion of BSN nurses in other health care facilities (Adorno, 2010).

### **Discussion of Findings, Recommendations, and Conclusions**

#### **Project Assumptions and Discovered Realities**

Prior to the SCP initiation assumptions were made of the stakeholders within this organization. It was assumed that this health care facility had strategies in place to educate staff nurses regarding the process of locating a BSN program and enrolling in a BSN program. This assumption was not supported by discussions with the health care facility staff and the staff nurse survey responses. This is consistent with many health care facilities as they struggle with a plan

to meet the IOM recommendation by 2020. Nurses wishing to return to school for a BSN usually need additional support from their employers (Way & MacNeil, 2007). This may include assistance navigating the system to locate an appropriate program and following through with the process of enrollment as well as other academic procedures.

Another assumption was that staff nurses at this health care facility were aware of the programs already in place to assist with tuition and program costs. Responses to the survey question asking the staff nurses if they were aware of the tuition assistance programs indicate that a large proportion were not aware. Nurses are considerably more likely to return to school to advance their education when employers are either paying for the entire education or providing reasonable assistance with tuition expenses as well as other expenses such as lost earnings, books and supply fees (Booton & Lane, 1985).

### **Project Strengths and Limitations**

**Strengths.** Several factors led to the success of this SCP. One strength of this project was the survey method used to collect data. A decision to not distribute the survey electronically was made based on information provided by the CNO that a large proportion of the facility's nurses do not utilize their email as a communication tool. The choice of a paper and pencil method was intentional to facilitate participation of all direct patient care facility nurses. This is consistent with the literature that shows the response rate for paper surveys to be far greater than the rate for surveys administrated digitally (Nulty, 2008).

Another strong point of this SCP that may have led to a satisfactory survey response rate is the researcher's relationship with the staff nurses. As an employee of this health care facility for more than 18 years, the researcher was able to add a personal element that otherwise would not have been possible. Throughout the time when the survey was active, several nurses stopped

to ask questions or discuss their thoughts regarding improving the BSN rate. This long-standing relationship with many of the facility's staff members was beneficial in receiving buy-in and support from facility administration, nursing leadership, and staff nurses.

**Limitations.** Limitations of this SCP includes the researcher's conscious effort to limit the number of survey questions. According to Connelly (2011) when designing a survey, some principles must be considered. These include: avoiding double-barrel items, using clear language, avoiding abbreviations, and paying attention to the survey length so that the participant does not spend more than 15 minutes filling it out. In alignment with these recommendations, several questions were removed from the survey. In doing so, it is possible that there may have been some loss of important information.

Another limitation is the survey response rate (36%). According to Kramer, Schmalenberg, Brewer, Verran, and Keller-Unger (2009), a minimum of a 40% of the sample size response rate is optimal when using survey data. This assures that the sample is adequately represented and that the data can be reliably aggregated to the entire sample. A discussion was held with a member of the human resources department to gather an accurate number of employees in each of the 21 patient care departments. All staff nurses (LPN and RN) were included, as were all employment statuses including full-time, part-time and as needed (PRN) staff. Including all PRN staff nurses, whom may work infrequently (thus not having an opportunity to take the survey), in the denominator may have skewed the response rate negatively. Although the survey response rate is slightly less than what is considered in the literature to be generalizable, it is believed that the data from this sample represents well what would be true of the intended population of all nurses in the institution.

Another possible limitation is the amount of days that the survey was available to staff for participation. The survey was in each of the direct patient care departments for 11 total days. It is possible that some staff did not work during any of those days and, therefore, did not have the ability to participate in the survey. Additionally, an important detail to note is the timing of the survey distribution. The survey was open for participation during a time that was close to the holiday season. It is possible that the additional stress of the holiday season either deterred nurses from participation or affected the nurses' survey responses.

### **Recommendations to Health Care Facility**

Recommendations to this health care facility were made using both the data analysis from the survey as well as the nursing literature. To increase the proportion of BSN nurses to 80% by 2020, the following recommendations have been made to the facility administration and the senior leadership team (SLT).

#### **Hiring and staffing.**

- Implement preferential hiring of nurses with a BSN.
- Begin requiring a BSN within five years of hire.

#### **Encouraging enrollment.**

- Develop a partnership with an academic institution to teach on-site courses.
- Offer a career progression incentive through a career ladder program.
- Create a financial incentive by increasing the amount of differential for nurses with a BSN.
- Improve dissemination of available tuition assistance and reimbursement programs.
- Increase tuition assistance monetary benefits.
- Provide assistance with program search and enrollment.

**Once enrolled in program.**

- Provide a resource and support person for students while completing the program.
- Allow preferential scheduling for full-time (FT) nurses who are also FT students.

**Next Steps**

Following the February 17, 2014, presentation to director of human resources, director of quality and patient safety, director of clinical practice, informatics, and education, and directors of the direct patient care nursing departments, there was a discussion regarding next steps. It was concluded that the survey results and analysis would be presented to the education committee, where a request for an increased allocation of financial resources for the RN-BSN students would be made. It was also decided that the human resources department would immediately begin searching for potential academic institutions to offer on-site courses. A suggestion was made that a representative from the facility reach out to several RN-BSN programs to inquire about the potential for offering the full RN-BSN completion program on-site as soon as possible. Special consideration was given to Mt. Carmel School of Nursing, since the facility currently has a partnership with this academic institution for medical library services. Likewise, the University of Iowa School of Nursing should be contacted due to the presence of an articulation agreement between this university and the local community college's ADN program.

All nurses were invited to attend an education open house on April 10, 2014. The fair included representatives from three RN-BSN and graduate programs: the University of Iowa, Presentation College, and Kaplan University. The University of Iowa was also available to evaluate transcripts and produce a plan of study at this time. A representative from the health care facility's human resource department was also present to provide information on educational loan and tuition reimbursement opportunities.

Following the April 14, 2014, presentation to the CNO, nursing directors, nurse residency coordinator, and nursing managers, there was a discussion regarding steps to be taken on each of the nursing units. The CNO asked all attendees to immediately begin disseminating the information regarding the available tuition reimbursement and scholarship opportunities for nurses returning to school. She also addressed the role strain barrier and discussed the importance of providing support and special attention to potential scheduling conflicts that may arise with their staff who are also students. The CNO also stated that she has been in contact with a nursing educator from The University of Iowa. There is a plan in place to continue a collaboration with this university, in an attempt to streamline the process for transcript evaluations and credit transfers for nurses interested in attending The University of Iowa's RN-BSN program.

### **Evaluation Plan**

This health care facility would benefit from continued research into this topic. As plans unfold to remove the nurse's perceived barriers to completing a BSN, it will be important to evaluate how this plan is affecting the BSN rate. The action plan for achievement of the recommendations is found in Table 13. The most obvious question to track over time is: Are the interventions from the facility successful in improving the number of nurses enrolling in and completing a BSN program?



Table 13

*Evaluation Plan*

Recommendation	Resources	Activities	Outcomes	
			Short- term	Long- term
Implement preferred hiring of nurses with a BSN	Time	Policy change by January, 2015	Decrease cost of tuition assistance	Improved patient outcomes
Begin requiring BSN within 5 years of hire	Time	Policy change by January, 2015	Incremental increase in proportion of nurses enrolled in BSN programs	Improved patient outcomes
Develop a partnership with an academic institution to teach on-site courses	Space, Technology	Contact academic institutions to assess options by June, 2014	Incremental increase in proportion of nurses enrolled in BSN programs	Improved patient outcomes
Offer career progression incentive through a career ladder program	Time, Money	Develop a career ladder program and implement it in all direct patient care nursing departments by January, 2015	Increased BSN enrollment, Increased nursing satisfaction	Improved patient outcomes, Increased nursing satisfaction
Increase the amount of differential for nurses with a BSN	Money	Policy change by January, 2015	Increase BSN enrollment	Improved patient outcomes, Increased nursing satisfaction

Improve dissemination of available tuition assistance and reimbursement programs	Time, Money	Utilize newsletters, Print and post flyers, Include in staff meetings by June, 2014	Increase in BSN enrollment	Increase in proportion of BSN prepared nurses, Improved patient outcomes
Increase tuition assistance maximum benefit or offer incremental increase in benefit based on length of stay following degree completion	Money	Policy change by January, 2015	Increase in BSN enrollment, Decrease in financial barriers for students	Increase in proportion of BSN prepared nurses, Improved patient outcomes
Provide a resource and support person for students while searching for programs, program enrollment, and while completing the program	Staff, Space, Money	Develop and hire for position by January, 2015	Increase in BSN enrollment	Increase in proportion of BSN prepared nurses, Improved patient outcomes
Allow preferential scheduling for nurses who are full-time also full-time students	Time	Policy change by June, 2014	Decrease role strain issues for students, Increase in BSN enrollment	Increase in proportion of BSN prepared nurses, Improved patient outcomes

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**Recommendations for Further Research**

Several themes have emerged from this SCP that could be used in further research. These themes can be used as a focus for further research in assessing the perceived barriers to nurses' returning to school. Potential survey questions in future research, based on the themes include:

- Would additional tuition assistance or scholarship opportunities influence you to return to school?
- Would an increase in the BSN differential sway your decision in returning to school?
- Would allowing preferential scheduling for full-time nurses who are also full-time students impact your decision in returning to school?
- Would providing a support group for students be useful to you and effect your decision to return to school?
- Would providing an education expert that could assist you in locating a program and the enrollment process benefit you?
- For those currently enrolled in or accepted into a BSN program, what factors led to the decision to choose the program over all others?
- Would providing an on-site BSN program be of interest to you?
- Would you commit to enrolling in an on-site BSN program if offered at this facility?

For evaluation purposes, additional questions at the organizational level are important to address when determining the facility's next steps and include the following:

- How has improving the proportion of BSN prepared nurses at this facility affected the patient quality data?
- Is there a decrease in the mortality rates, failure to rescue rates, hospital acquired conditions, and falls, as the research indicates?

- Have the patient satisfaction scores improved in response to the increased proportion of BSN prepared nurses?
- Has there been a change in the patients' lengths of stay?
- Has improving the proportion of BSN prepared nurses impacted the retention rate of nursing staff?
- Has there been an improvement in the nursing satisfaction responses?

It is also recommended that the facility repeat the survey for the direct patient care nurses in the future and compare this survey data to the current survey results. Doing so will allow the facility to recognize what interventions have been successful in removing the nurse's perceived barriers to a BSN education. The repeat survey data acts as a guide in program evaluation as well as the development of the next steps for this facility. Furthermore, a research opportunity exists in assessing the barriers of those nurses who have completed a BSN degree. Little research on this topic exists currently in the literature, and these data could also be helpful to the facility in future evaluations and analysis.

### **Project Dissemination**

There are various components of the dissemination plan for this SCP. Those involved in the dissemination activities encompass stakeholders interested in the survey results, including: health care facility administration, patient quality and safety colleagues, staff nurses at the health care facility, academic institutions, professional organizations, interested parties at St. Catherine University, and academic and professional colleagues.

### **Internal Plan**

Included in this plan is a formal presentation to the health care facility stakeholders and interested parties. Two presentations were given to facility staff. Each presentation was attended

by various members from nursing administration, nursing leadership, nursing management, the nursing workforce, and human resource management. Future plans include multiple presentations to nursing staff to be held at individual department meetings. The sequence and timing of the staff nurse presentations will be subject to recommendations and approval from the CNO and nursing directors. As the evaluation plan for the recommendations is implemented it will be important for all stakeholders to be updated on the progress of the project.

### **External Plan**

Plans to disseminate the SCP externally include a public presentation at St. Catherine University that includes interested parties, and an electronic manuscript through St. Catherine University. In the future, plans for publication encompass several journals, including: *Human Resources for Health*, *Journal of Advanced Nursing*, *Journal of Nursing Education*, *Nursing in Practice*, and *Nursing Management*. Presenting this information at a national conference is also included in this dissemination plan. An abstract was submitted to the baccalaureate education conference from the AACN, and the ANA quality conference scheduled for February 2015. Additionally, an abstract was submitted to Sigma Theta Tau International (SSTI) to be considered for a conference devoted to the future of nursing scheduled for October 2014.

### **Summary**

Economic theories and social justice philosophies allow health care facilities valuable context for systems change. With a relatively small number of nurses currently educated at a BSN level or above at this health care facility, the next six years will be challenging as a large number of the facility's nursing staff will be returning to school in order to meet the IOM's recommendation. Nursing administrators and leaders can expect that there will be some turbulence as change occurs and will benefit from understanding the value of each of the theories

used to guide this project. Leading this change initiative through 2020 will require a strong, cohesive, effective team that is committed to both supporting the educational efforts of the nursing workforce and improving patient outcomes.

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*Appendix A*

## BSN Survey

This survey is for nurses without a baccalaureate degree in nursing (BSN) and those currently pursuing a BSN

My name is Mica Harris. I am a student of St. Catherine University as well as an employee of (name of facility). I am completing a system's change project in collaboration with (name of facility). My project focus is increasing the proportion of BSN prepared nurses to 80% by 2020. I am currently collecting data from direct patient care nurses with a diploma degree, associate's degree or Licensed Practical Nurse degree. I appreciate your willingness to complete the following anonymous survey. Your participation in the survey will provide (name of facility) with important data. This data will be analyzed and a summary of recommendations will be given to nursing administration. Together, we will use this information to develop a plan to support nurses interested in returning to school.

Survey time is approximately 5-10 minutes. Completed surveys can be returned in the box provided on each unit by December 23, 2013. You may place your survey in the attached envelope if you wish. Please do not fold the answer sheet.

Your responses to this survey will be anonymous and results will be presented in a way that no one will be identifiable. There is no way for the researcher or others at (name of facility) to identify who has or has not chosen to participate in this survey. Your decision whether or not to participate will not affect your relationships with the researcher or (name of facility). You may skip any item that you do not wish to answer. If you have any questions about this project, please contact Mica Harris at mmharris@stkate.edu, Dr. Roberta Hunt at rjhunt@stkate.edu, or the Institutional Review Board at (name of facility) at xxx-xxx-xxxx. By responding to items on this survey you are giving your consent to allow us to use your responses for research and educational purposes.

**Survey Directions: Please fill in only one bubble for each question or statement. Please fill in the entire bubble using a pencil only. Do NOT use a pen.**

1. Age
  - A- 20-28
  - B- 29-37
  - C- 38-46
  - D- 47-55
  - E- 56 or older
  
2. Length of service at (name of facility) (in years)
  - A- 0-10
  - B- 11-20
  - C- 21-30
  - D- 31-40

E- 41 or more

3. Are you currently enrolled in or have you been accepted into a BSN program?

A- Yes

B- No (If no, you can skip to question #6)

**\*\*For questions 4 and 5 (if applicable) please write in your answers in the lined area provided on the response sheet. Please note, questions 4, 5 and 6 will be blank on your bubble sheet. Resume survey with question # 7\*\***

4. If you are enrolled, which program are you attending or what is the name of the college or university? (write in your response on the answer sheet)

5. When is your estimated date of completion? (write in your response on the answer sheet)

6. If you are not currently enrolled, have you considered enrolling?

A- Yes

B- No

7. Are you aware of the programs available at (name of facility) (tuition reimbursement of up to 9 semester hours per fiscal year and the facility Scholars' Program that provides assistance of up to \$12,000 for a bachelor's degree?)

A- Yes

B- No

**The following questions are asking what, if any factors you consider a barrier to pursuing the Bachelor of Science in Nursing. Please indicate the degree to which each factor has influenced or may influence your decision to pursue the BSN.**

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly Agree
8. I am not interested in pursuing a degree in Nursing.	A	B	C	D	E
9. I am too old/close to retirement to pursue another degree.	A	B	C	D	E
10. There is not a program close enough to (name of city) that I am interested in.	A	B	C	D	E
11. I am not interested in pursuing an online degree.	A	B	C	D	E

12. I do not have access to a computer or the Internet at home.	A	B	C	D	E
13. I am uncomfortable with computer technology and feel I need to update my skills to pursue a BSN.	A	B	C	D	E
14. I do not feel I could manage my obligations at work while pursuing my degree.	A	B	C	D	E
15. My current work schedule would not allow me to attend or complete a BSN program.	A	B	C	D	E
16. I am concerned that I would not be able to balance school with my family obligations.	A	B	C	D	E
17. My spouse or significant other is not supportive of my educational goals.	A	B	C	D	E
18. I cannot afford to pay for college costs.	A	B	C	D	E
19. I am concerned that the degree will not result in enough increased earnings to pay for the costs associated with the degree.	A	B	C	D	E
20. I am not familiar with the process of finding a good academic program in my field.	A	B	C	D	E
21. I am not sure what I need to do to get accepted into a program.	A	B	C	D	E
22. I am not sure how to approach this subject with my supervisor at work.	A	B	C	D	E