Non-Licensure Nursing Internship Program for Recruiting High School Students into Nursing

By

Janet M. Holbrook

A Directed Scholarly Project Submitted to the
Department of Nursing
in the Graduate School of
Bradley University in
partial fulfillment of
the requirements for the
Degree of Doctor of Nursing Practice.

Peoria, Illinois

2019

DNP Project Team Approval Form

Bradley University
Department of Nursing

Non-Licensure Nursing Internship Program for Recruiting High School Students Into
Nursing

By

Janet Holbrook

has been approved

April 15, 2019

Approved: __Karin Smith, DNP, RN, NEA-BC, CENP, CCRN-K 4/15/19__
(DNP Project Team Chairperson name, credentials & date)

Approved:__Ann Seckman, DNP, RN   4/15/19__
(DNP Project Team Member name, credentials & date)

Acknowledgements

I would like to express my special thanks of gratitude to my Project Preceptor, Dr. Ann Christy Seckman; the Project Chair, Dr. Karin Smith; Goldfarb School of Nursing Research Associate Dean, Dr. Jean Davis and the research faculty; and the Program Chair, Dr. Deborah Erickson, who gave me the wonderful opportunity to do this great project on the topic (Non-Licensure Nursing Internship Program for Recruiting High School Students into Nursing). I would also like to thank all my colleagues who provided kind words of encouragement throughout my studies at Bradley University.

Finally, to my caring, loving, and supportive family. I am much indebted to your support, and encouragement; especially when times get tough. Your encouragement was a great comfort to me as I complete the DNP program. You have my deepest gratitude and heartfelt thanks.

Abstract

U. S. Bureau of Labor Statistics (2017) reported approximately 600 open nursing positions in central-Missouri hospitals. Implementing strategies to recruit high school students can help fill these positions. Providing a non-licensure nursing internship program (NLNIP) for high school students may help increase interest in the profession and increase recruitment of future nurses. The primary purpose of this project is to examine attitudes and beliefs of high school students towards nursing and assess their perceptions after participating in a non-licensure nursing internship program (NLNIP) that subsequently will serve as a recruitment program for future nurses. A descriptive study for the project was developed to gain a better understanding of how students perceived the discipline of nursing. High school students participated in a 40 hours program held over seven weeks. The participants completed pre-and-post questionnaires and a course evaluation. Quantitative and qualitative data were collected and analyzed to determine if student perceptions and attitudes changed. A cost analysis was conducted to determine the sustainability of the program and potential to replicate the program. The NLNIP promoted interest in high school students to seek nursing as a career, thus providing a key benefit to nursing schools by potentially increasing future enrollment.

Keywords: basic nurse skills, community service, competency and knowledge, high school programs, internship programs, non-licensure programs, nurse reputation, nursing shortage, safe activities and skills, student attitudes and perceptions, transition to adult careers.

Table of Content Page

Non-Licensure Nursing Internship Program for Recruiting High School Students into

Nursing

Chapter I: Introduction

The profession of nursing has been established for over 100 years and is viewed by most

as the most honest and trustworthy career in the country (Williamson, 2016).   According to

Gallup's annual rating of honesty and ethical standards in professions, nurses top the list with

84% of the public rating their standards as "high" or "very high" (Williamson, 2016). However,

for some people, nursing is not a profession to pursue. Perceptions of nursing range from

knowing nothing about the discipline or seeing nursing in a negative view (Elibol & Seren, 2017;

Myers, 2013; Potts & Gaulrapp, 2013). This is even more so true when it comes to high school

students. The inspiration for taking on this project occurred last spring when a small group of

nine high school students were asked about pursuing nursing as a possible career. Their

responses were unexpected and concerning for the future of nursing. The students stated: "My

father would kill me if I became a nurse." "Who wants to be a nurse? You just empty bedpans."

"Who in their right mind would want to be a nurse?" Student perceptions may have the greatest

impact when choosing a career. Therefore, it is imperative to inform high school students as

early as possible to clarify any misconceptions of the nursing profession (Potts & Gaulrapp,

2013).

The non-licensure nursing internship program for recruiting high school students into

nursing (NLNIP) could have a powerful impact to nursing practice and outcomes by: (1) creating

an effective learning tool to enhance student learning as the student discovers the discipline of

nursing; (2) providing interactive learning opportunities for the students by providing hands-on

learning in the classroom (didactic lectures), clinical simulation labs, and hospital to enhance and

build nursing skills; (3) utilizing the program as a recruitment strategy to help close the nursing

shortage gap, and reaching out to students in high school or earlier to introduce nursing as a

viable career; (4) building confidence in the students' ability to perform safe and effective care

as taught in the classroom and simulation labs; and (5) lifting confidence and knowledge as the

high school students work alongside nurses and nursing students, learning the value of nursing.

Background and Significance

The nursing shortage continues to impact the nursing profession and healthcare.

Currently, organizations are having a challenging time recruiting new nurses and retaining those

currently employed (Minority Nurse, 2013). The existing nursing shortage in the United States

is largely caused by the aging population, increasing prevalence of chronic disease, nursing

workforce and limited capacity in nursing school programs (U. S. Bureau of Labor Statistics,

2016). As the population ages, many more people will have healthcare needs due to at least one

chronic health condition linked to aging, and which will result in the accompanying need for

more services (U. S. Bureau of Labor Statistics, 2016). The Bureau reports between 2010 and

2030, the population of senior citizens will increase by 75% to 69 million senior citizens who are

creating the driving demand for nurses (U. S. Bureau of Labor Statistics, 2016). The profession

of nursing continues to experience vacancies in recruitment and predicts the demand for

registered nurses to grow from 2 million to 3.2 million between 2008 and 2018, which is a 60%

increase nationwide (U. S. Bureau of Labor Statistics, 2016). The nursing shortage in 2025 will

be twice the size of any nursing shortage since Medicare and Medicaid were introduced in the

1960s (U. S. Bureau of Labor Statistics, 2016). On the other hand, the U. S. Bureau of Labor

Statistics (2016) reports that by 2022 there will be more than one million jobs for registered

nurses.

The U.S. Bureau of Labor Statistics (2016), states there are approximately 67,920 registered nurses employed in the state of Missouri, of which 33,660 are employed in the St. Louis metropolitan area. Nurses in this region make an average salary of $60, 830 or $29.25 per hour (U.S. Bureau of Labor Statistics, 2016). Ideally, this salary would attract new nursing graduates to fill the nursing openings in the St. Louis area. However, when compared to other states, such as California, where nurses can make an annual salary of $101,750 or $48.92 per hour, the projections for staying in the St. Louis area are not that favorable (U. S. Bureau of Labor Statistics, 2016). If new nursing graduates in Missouri choose other states for employment, it would greatly impact the local hospitals within the region.

Because nursing schools have limits on the number of students they can admit, not enough nurses graduate to fill the vacancies for the hospitals in the state of Missouri (U. S. Department of Labor, 2017). Currently, the state of Missouri has 28 four-year degree nursing programs, 43 practical nursing programs and 36 schools that offer associate degrees (U. S. Department of Labor, 2017). In the St. Louis area, there are seven nursing schools. There are five private nursing schools and two state nursing schools, along with three community colleges in the region. One of the private schools is Goldfarb School of Nursing at Barnes-Jewish College (GSON) located in St. Louis, Missouri. The GSON prepares students for the following academic degrees: Bachelor of Science in Nursing (BSN – Undergraduate, Accelerated, and Online RN to BSN), Master of Science in Nursing (MSN – five tracks), and the Doctor of Nursing (DNP, PhD). Most of the students enrolled at GSON are students from high school who completed their prerequisites prior to enrollment. However, there has been a slight decline in enrollment over the past two years.

Nursing schools have been unable to turn out graduates fast enough to keep up with the demand, which is why hospitals are trying harder to retain them. Many hospitals are setting up programs to help new nurses' transition by offering residencies. Residency programs can be costly. Per Hansen (2013) a residency program can total $93, 100 with a cost of $2, 023.91 for each resident. However, the expense of recruitment and training is much costlier (Hansen, 2013). Most hospitals want the new graduate to be safe and learn in a safe environment. Generally, these nurses are placed with an experienced nurse as a mentor. Despite these efforts, many new nurses leave the profession within the first two years after graduation (Minority Nurse, 2013). In 2008, there were 320,000 nursing students who applied to nursing schools; however, only 78,000 graduated (Minority Nurse, 2013). Of those who graduated, 23% continues to work as nurses, and about 30,000 stayed in the field (Minority Nurse, 2013). Surprisingly, 50% left the profession of nursing after two years (Minority Nurse, 2013).

An urgent need exists to provide high school students the opportunity to learn and understand the many facets of the profession of nursing. Therefore, this project related to changing student perceptions of the nursing profession is significant because these perceptions offer clues towards implementing strategies that can be applied as recruitment tools for our future nurses (Myers, 2013). To change perceptions, it is critical that students are engaged in active learning to experience nurses practicing in the clinical environment, which can influence attitudes, remove any misconceptions, and improve nursing image (Elibol & Seren, 2017). If high school students were more knowledgeable about the nursing profession and chose it as a career, this could have a significant impact on healthcare (Elibol & Seren, 2017). Policymakers in the government could target high school students and provide incentives for encouraging

nursing as a career or provide scholarships to help students and parents with tuition costs (Torpey, 2015).

Problem Statement

According to the U. S. Department of Labor (2017), 34 percent of nurses in the state are older than 55 and reaching retirement age. The shortage of nurses in Missouri hospitals is at an all-time high, according to a 2017 report by the Missouri Hospital Association (U. S. Department of Labor, 2017). The report also states almost 16 percent, or about 6,000, of staff nursing positions in Missouri hospitals are vacant (U. S. Department of Labor, 2017). In central Missouri, the number nursing vacancies doubled from 8.1 percent to 16.2 percent between January 2016 and December 2016 (U. S. Department of Labor, 2017). About 600 positions in central Missouri hospitals are open (U. S. Department of Labor, 2017). Implementing strategies to recruit high school students can help fill these positions. Providing a non-licensure nursing internship program (NLNIP) for high school students will help increase interest in the profession and increase recruitment of future nurses.

The Project Aim

The primary purpose of this project is to examine attitudes and beliefs of high school students towards nursing and assess their perception after participating in a non-licensure nursing internship program (NLNIP) that will serve as a recruitment program for future nurses. The goal is to broaden the perception of high school students of the principles and work done by nurses, by encouraging them to better understand the impact and relevance of the discipline of nursing. The two project objectives are to: (1) assess the change in perception of the nursing profession among high school students that participate in the NLNIP; and (2) measure the effectiveness of the NLNIP for recruiting high school students into the profession of nursing.

The project was initiated due to the negative perceptions of nursing from nine high school students. Looking at various concepts for the project, the concept chosen for this project is "change perception," a cognitive function. Being able to prompt feedback from the students regarding this issue is very important and could have a significant impact on the future of the nursing profession, including closing the nursing shortage gap (Elibol & Seren, 2017). The development of a non-licensure nursing internship program (NINIP) for high school students, will help address the problem of how: (1) to access the perceptions of the high school students, (2) to educate the students regarding the discipline of nursing, (3) to introduce concepts and skills in a controlled and safe environment, and (4) to utilize student feedback to address strategies for future nursing. NLNIP includes hands-on experience in a safe, learning environment by utilizing the simulation labs and simulation hospital rotations, where students will learn nursing skills, lectures, concepts, teamwork, technology, and various activities. NLNIP consists of seven consecutive weeks, which includes a total of 40 hours, meeting one day a week in the simulation labs and simulation hospital at GSON. Each clinical day is comprised of six hours. All skills performed by the high school students are supervised in the simulation labs and simulation clinical environment by GSON faculty. The NLNIP has the potential to be very effective in helping students decide to pursue nursing as a career once they have completed the program.

Clinical Question/PICOT

The PICOT format (patient population, intervention of interest, comparison, outcome, and time) helps clinicians find relevant and useful information for evidenced-based practice change (Melnyk, Fineout-Overhold, Giggleman, & Choy, 2017). The PICOT question guiding this practice change project is: In high school seniors, how does a non-licensure nursing

internship program, compared to no program, affect perceptions of nursing and recruitment into the nursing profession, after seven weeks? High school seniors can be inspired to look at nursing in a positive light by participating in a non-licensure nursing internship program (NLINP), thereby changing their perception of nursing.

Congruence with Organizational Strategic Plan

This project aligns with the principles from the mission, vision, and core values of Goldfarb School of Nursing at Barnes-Jewish College (2017). The project aligns with GSON's "Community" core value by working with the community for advancing and sustaining healthcare work and success. An example of this is recruiting high school students in the community for the internship program to learn skills and concepts that will introduce them to the nursing profession. This core value works together with the community to deliver strengths for advancing, serving, and sustaining healthcare work success. The project will provide an opportunity for nursing school recruitment and bring awareness to the nurse shortage needs in the community, state, and nation.

GSON's mission is to prepare exceptional nurse leaders in an academic learner-centered environment. The project aligns with the mission by promoting the use of technology to teach skills that enhance patient safety learned in simulation labs based on evidence-based scenarios. The scenarios will encourage patient safety and provide information to support students' clinical decision-making skills. The vision of GSON is to become a premiere college, in partnership with BJC HealthCare and other valued academic partners, by offering a robust interprofessional curriculum that will develop a health care workforce. The project offers an opportunity for high school students from diverse backgrounds to participate in a vigorous hands-on program and to learn theories and concepts of the nursing profession. Implementing the NLNIP will provide

benefits for GSON such as: (1) using the program as a recruitment tool to convey advertisement

for future enrollment status of the school; (2) provide increased awareness of GSON's existence;

and (3) improve relationships with GSON and the community.

Synthesis of Evidence

The literature reviewed included publications from years 2011 to 2017. Keywords used:

 basic nurse skills, community service, competency and knowledge, high school programs,

internship programs, non-licensure programs, nurse reputation, nursing shortage, safe activities

and skills, student attitudes and perceptions, transition to adult careers. The review of literature

included the following databases: Cumulative Index of Nursing and Allied Health Literature

(CINAHL) and Object, View and Interaction Design (OVID), PubMed, and the Internet.

Articles on the topics of adolescence (13-18 years) career development, cultural competence,

cultural safety, safety competence for hand hygiene and infection control compliance, high

school student programs, nursing image, perception, simulation, and student perception of

nursing were found in the literature as early as 1968. Nineteen articles were found. Four of the

articles were not full articles nor related directly or indirectly to the project and were not used.

Fifteen articles were evaluated; fourteen of the articles were used, five articles were directly

related to the project, and ten articles were indirectly related to the project. One article had parts

that could be used but was not related to the clinical question due to lack of data. The fifteenth

study evaluated was not included because it was out dated. Therefore, after all the data was

evaluated, two problems were identified for the program: (1) lack of literature support

identifying high school students in non-licensure internship nursing programs, and (2) poor

perception of the nursing profession by high school students due to lack of knowledge regarding

nursing. The search process revealed there is a limit of available research articles relating to the

clinical question; however, nine of the fourteen studies reviewed support both statements either

directly or indirectly. All or parts of their contents can be utilized for the DNP project.

       Literature results. The literature revealed students perceived an ideal career as having

more power, more positive evaluation, and less activity than a career in nursing would offer

(Potts & Gaulrapp, 2013). These results were obtained from a small sample size of 20 females

(same ethnicity) of whom 14 never knew a nurse, which could lead to misconceptions regarding

the nursing profession (Potts & Gaulrapp, 2013). The data revealed six students' results

indicated they gained current knowledge of the discipline from the nurses they knew (Potts &

Gaulrapp, 2013). A limitation of the study was noted with the pre-and-post questionnaires. The

authors noted further data could have been analyzed if the pre-and-post survey questions were

identical (Potts & Gaulrapp, 2013). The study is directly related to the project objectives

because it examined the perceptions of high school students towards nursing.

       A few studies examined how high school students felt about different professions and

wanted to know the greatest differences for selecting nursing as a career (Elibol & Seren, 2017;

Myers, 2013; Potts & Gaulrapp, 2013; Torpey, 2015). The results revealed that the students

wanted more autonomy to make their own decisions, to always have a job, to work in a safe

place, to make a lot of money, and to earn appreciation and respect (Potts & Gaulrapp, 2013;

Wilkes, Cowin, & Johnson, 2014). For instance, in the study by Elibol and Seren (2017), the

authors wanted to examine the reasons why vocational high school students choose the nursing

profession by examining their image perceptions related to nursing and their future of selecting

nursing as a career. There were 352 students who were selected to participated in the study from

four vocational high schools (Elibol & Seren, 2017). The researchers used a nursing image scale

to conduct the study. Participants were asked if they knew a nurse. The data revealed those that

knew a nurse had a more positive score on the survey than those who did not know a nurse (Elibol & Seren, 2017). The authors stated students chose nursing as a secondary option because it was easy to obtain a job and stated it was concerning that nursing is seen as an easier way to earn money or to have job security (Elibol & Seren, 2017). Further, Elibol and Seren (2017) state children are directed by school counselors towards nursing schools, as early as the age of adolescence, regardless of whether they have the appropriate disposition for this profession. There were no limitations reported in the study. This study is directly related to the project objectives because it assessed high school students' perception of nursing and their plans for selecting nursing as a career choice.

Areas in which nursing appeared more favorable were: working with one's hands, caring for others, and being very busy (Wilkes et al., 2014). Wilkes et al. (2014) conducted a descriptive, longitudinal study that involved 10 research studies to determine the reasons students choose to undertake a nursing degree. There were 860 students who participated in the study (Wilkes et al., 2014). The authors employed concepts of caring and care and included the health and well-being of others or similar phrases, such as being inspired by the caring of nurses, and nurses are very caring and can make a positive impact on a person's life (Wilkes et al., 2014). The design was primary a qualitative questionnaire with open-ended questions relating to the reasons for students' choice of a nursing program. A major limitation of the study is that participants did not expand on the concepts for choosing nursing. The study is indirectly related to the project objectives because it looks at perceptions of nursing from undergraduate and registered nurses. The information can be used to help recruit future nursing.

Students' perceptions of nursing may have been based on misinformation, or a lack of awareness about the options available within the profession, or based simply on a higher regard for a different career (Potts & Gaulrapp, 2013). Future actions to recruit students into nursing must include exposure to the multiple opportunities awaiting them as experienced by contemporary nursing professionals (Potts & Gaulrapp, 2013). Examining how high school students select their major, may help identify recruitment strategies, and help to advertise for certain students based upon their personality and perceptions, and include reaching out to those who may need accommodations or have disabilities (Brown & Cinamon, 2016; Elibol & Seren, 2017; Myers 2013; Potts & Gaulrapp, 2013). Brown and Cinamon (2016), focused more on personality traits development of self-efficacy of high school students with disabilities and outcome expectations regarding selection of a high school major. Limitations in the study included not having access to the student's IQ scores to determine accurate results (Brown & Cinamon, 2016). The study is indirectly related to the project objectives because it looks at high school students choosing a major that could lead to nursing. In the study by Myers (2013), the researchers looked at innovative strategies to recruit high school students into the profession of nursing and examine high school students' perceptions, which is directly related to the clinical question. Per Myers (2013) there were 100 students who participated in the study. Myers (2013) provided the students the opportunity to look at the field of nursing as a possible career; however, some of the limitations included a lack of diversity in race, ethnicity, and gender, due to most students attending the institute were Caucasian, and all students were female.

Career planning. As high school students plan for their careers, and transition into the adult world, strategies of recruitment into the nursing profession must be implemented. Utilizing all resources available to help change high school student's perception of the nursing profession

is most urgent, as their perceptions can be utilized for recruitment for future nurses (Elibol &

Seren, 2017; Myers, 2013; Potts & Gaulrapp, 2013; Rhodes, Morris, & Browder-Lazenby, 2011;

Wilkes et al., 2014). Being open minded and listening to what students have to say can help

build trusting relationships and create a learning environment that will facilitate dialog regarding

the discipline of nursing, which, in turn, can create opportunities to share strategies and plans for

pursuing nursing.

An important strategy for nursing recruitment is to challenge the nursing profession to

abandon its image of nurses as angels and promote an image of nurses as competent

professionals who are both knowledgeable and caring (Rhodes et al., 2011). In this study, the

authors explored student motivation for choosing a career in nursing through a voluntary

questionnaire consisting of three open-ended questions which was sent out to 78 students

(Rhodes et al., 2011). Some of the findings included students describing themselves as: having a

caring heart; chose nursing because of God; wanting job security, liking the options in nursing;

as liking the working condition, wanting flexibility; as needing to be fulfilled, as wanting a

purpose in life; and as seeing nurses make a difference (Rhodes et al., 2011). Limitations

included a small sample size and only one nursing school was used for the study. The nursing

school had a heavy population of students who worked in the Christian churches. The study is

directly related to the project objectives because the authors explored student motivation and

perception for choosing a career in nursing.

Educational opportunity. Perhaps, as high school students are presented with

opportunities to make a choice to pursue nursing, there should be several safe guards in place,

especially, if we are seeking to recruit them into the clinical areas. According to Torpey (2015),

completing an internship is an excellent way to gain experience because internships are

temporary, supervised, and designed to give students practical job training. The authors did not

list a sample size but did state the targeted population were high school students. Their goal was

to help the students plan for a career (Torpey, 2015). Providing programs, such as the internship

project, will help prepare students to practice basic nursing skills in a safe controlled

environment (Torpey, 2015). The study is indirectly related to the project objectives because it

explores career options for high school students. Teaching concepts, theory, teamwork,

technology, and implementing guidelines relating to such skills as infection control and hand

hygiene can prevent injuries, infections, and save lives (Banach, Bearman, Morgan, & Munoz-

Price, 2015; Kalisch & Lee, 2011; Kay, Avant, Aungsuroch, Zhand, & Jiang, 2014; Potts &

Gaulrapp, 2013; Yanke et al., 2015).

An interesting study was done by Banach et al. (2015) regarding visitors and infection

control precautions in the hospital. The researchers wanted to determine if visitors played a role

in spreading the transmission of infection. Through observation visitors were monitored to see if

they were following the hospital's infection control precaution guidelines. Unfortunately, the

researchers were unable to determine if visitors are vectors to transmit infection due to a lack of

available research studies in the literature (Banach et al., 2015). The study did not provide a

sample size nor a reliable measurement tool that was used for data analysis. The findings were

unclear of the extent of transmission of organisms by visitors, because most studies have been

done on healthcare staff (Banach et al., 2015). Based on these results, there was not enough data

available to determine if this study would or would not support the clinical question or the

project objectives. Therefore, more research is needed. Another study involving infection

control was conducted by Yanke et al. (2015). The researchers wanted to determine if healthcare

workers (HCW) were loyal following contact isolation precautions for suspected patients

suspected or confirmed Clostridium difficile infection (CDI), or if the barriers were too

challenging to comply (Yanke et al., 2015)? The researchers observed the time required to

complete contact isolation precautions, and adequacy of contact isolation supplies, making sure

they were available. The sample size consisted of 288 observations. Concepts included hand

hygiene from the Centers for Disease Control and Prevention (CDC) and the World Health

Organization (WHO) guidelines for infection control, also components of contact isolation

precautions which included hand hygiene, gowning and gloving, before and after patient contact

(Yanke et al., 2015). Two hospitals were used to compare compliance, hospital A and hospital

B. The results revealed full compliance with contact isolation precautions was low at both

hospitals (Yanke et al., 2015). The study is indirectly related to the project objectives because

the high school students will be taught concepts and principles of hand hygiene, personal

property equipment (PPE), and isolation techniques. The evidence concludes more research is

needed; however, the authors followed evidence-based clinical practice guidelines based on

systematic reviews of random control trials (RCT's).

Nurses often work with individuals and populations with complex health and social

problems, assisting them to promote health, whether in terms of their mental or physical states,

their environments, or their social habits, lifestyles, and choices (Kay, Avant, Aungsuroch,

Zhand, & Jiang, 2014). Patient outcomes in nursing are primarily about the results for the

patient receiving nursing care (Kay et al., 2014). This interactive process can be sensitive with

privileged meaning and approaches that may differ between patients and providers; therefore, it

is important for nurses to understand all the concepts of patient outcomes (Kay et al., 2014).

The authors did not provide a sample size for the study nor data analysis conducted other than

the Walker and Avant concept analysis approach (Kay et al., 2014). Although there is missing

data, parts of this study can be implemented for the project, especially looking at high school

students' perception and patient safety and concepts of patient outcomes. Therefore, it can be

used with confidence to help answer the project question and meet the project objectives.

Educating high school students on how to perform basic nursing skills, including therapeutic

communication skills, teamwork, and technology, through simulation can have an impact on

patient outcomes (Aebersold & Tschannen, 2013; Kalisch & Lee, 2011; Kusmaul & Waldrop,

2015).

      Technology. High school students are no strangers to technology. Most high school

students are familiar with all sorts of technology, such as computers, cell phones, gaming, etc.

Learning through real life simulation scenarios in the program will provide deliberate

significance of the project relating to teamwork, technology, and education in the simulation labs

(Aebersold & Tschannen, 2013; Kalisch & Lee, 2011; Kusmaul & Waldrop, 2015). Aebersold

and Tschannen (2013) provided an overview of simulation techniques and uses which are like

some of the skills that will be taught in the NLNIP during lab sessions, such as learning effective

communication skills, teamwork, and patient safety. The sample size consisted of five research

studies. In addition, the researchers wanted to review selected emerging research linking

simulation to patient outcomes; discuss current uses of simulation by practicing nurses; and

recommend strategies to develop a simulation program. The study is indirectly related to the

project objectives because the high school students will learn skills in the simulation lab using

low to high fidelity simulation. Limitations of the study include a small sample size and lacking

empirical evidence of simulation's impact on patient outcomes. Another study involved in

simulation is Kusmaul and Waldrop (2015). In this study the researchers conducted a cross-

sectional study and used 106 participants to examine a hypothesized relationship among

demographics, the experience of potentially traumatic life events and Certified Nurse Assistant's (CNA) caregiving behaviors. The participants were recruited from a convenience sample of three nursing homes (each with 200 beds) located in northeastern city/midsize. Some limitations that were discovered include the lack of diversity in race, ethnicity, and gender of the high school students. Most students participating in the study were Caucasian, and all students were female. The students represented five different states, with the predominance of students from the midwestern United States. Another limitation was the lack of scholarship funding to support more economically diverse students to attend. Although the researchers' study involved CNAs, it is indirectly related to the project objectives because the researchers measured some of the subjects needed for the project such as identifying caring behaviors, changing attitudes, and patient relationships.

Strategies and transition. Utilizing all resources available to help change high school students' perceptions of the nursing profession is most urgent, as their perceptions can be utilized for recruitment for future nurses (Myers, 2013; Potts & Gaulrapp, 2013; Rhodes et al., 2011; Wilkes et al., 2014). Although nursing was not the first-choice career for many high school students, some selected the nursing profession to easily secure a job (Kay et al., 2014). By implementing the project NLNIP, high school students are provided an opportunity to learn about the nursing profession, understand what nurses do, and get firsthand experience of working with nurses and an interprofessional team in the clinical environment.

Literature support. Altogether, five studies were directly related to the clinical question and can be used with confidence for the project: (1) Barnsteiner (2011) looked at 162 Quality and Safety Education for Nurses (QSEN) competencies and based them around a culture of hospital safety for students. This study did meet the project objectives and can support the

clinical question because QSEN competencies are integrated throughout the project, such as

evidence-based practice, integrating best current evidence with clinical expertise guidelines from

the Centers for Disease Control and Prevention (CDC) and the World Health Organization

(WHO), safety (i.e., minimizing risk of harm to high school students in the clinical environment

by teaching them hand hygiene, isolation techniques, and how to use personal property

equipment [PPEs]; (2) Eliboli and Seren (2017) examined high school students' perceptions of

nursing; (3) Myers (2013) provided high school students an opportunity to explore the profession

of nursing as a possible career; (4) Potts and Gaulrapp (2013) examined perception of high

school student's perception of nursing; and (5) Rhodes et al. (2011) explored students'

motivation and perception for choosing a career in nursing.

An additional three studies can be used with confidence for NLNIP, although they are

indirectly related to the clinical question: (1) Aebersold and Tschannen (2013), a study that

taught practicing nurses' skills in simulation labs using low to high fidelity simulation. The high

school students in the project NLNIP will also learn skills in simulation labs. GSON has state-

of-the-art simulation labs where the high school students will learn evidenced-based practice

skills and concepts; (2) Kusmaul and Waldrop (2015) looked at certified nursing assistants in

nursing homes to promote better outcome for patients. This study is indirectly related to the

clinical question because some of the basic nursing skills that the high school students will learn

in NLNIP are like those taught to CNAs. Finally; (3) Wilkes et al. (2014) performed a meta-

analysis of 10 primary qualitative studies that focused on recruitment and reasons students

choose to undertake a nursing degree.

Theoretical Framework

The theoretical framework used to guide NLNIP is the Community Nursing Practice Model (CNPM), first developed in 1994 by Smith and Maurer, and updated 2012 (Parker, Barry, & King, 2015). CNPM began with and continues to be a blend of the ideal and the practical (Parker et al., 2015). The ideal was the commitment to develop and use nursing concepts to guide nursing practice, education, and scholarship, and a desire to develop a nursing practice as an essential component of a college of nursing. The concepts and relationships of the model are the guiding forces for community practice (Parker et al., 2015). Essential values form the basis of the model are: (1) persons are respected; (2) persons are caring, and caring is understood as the essence of nursing; and (3) persons are whole and always connected with one another in families and communities (Parker et al., 2015). Additional concepts of the model are: (1) access, (2) essentiality, (3) community participation, (4) empowerment, and (5) intersectional collaboration (Parker et al., 2015).

According to Parker et al. (2015), concepts of nursing practice that have emerged include transitional care and enhancing care. Transitional care is that in which clients and families are provided essential health care while being referred to a more permanent source of health care in the community (Parker et al., 2015). Enhancing care describes nursing and social work that is intended to assist the client and family who need care in addition to that provided by a local healthcare provider (Parker et al., 2015). The CNPM illuminates these values and each of the concepts in four interrelated themes: (1) Nursing: the unique focus of nursing is nurturing the wholeness of persons and environments in caring. Nursing practice requires creative integration of ways of knowing and understanding through knowledge synthesis within a context of value and meaning (Parker et al., 2015). Nursing knowledge is embedded in the nursing situation, based on the lived experience of caring between the nurse and the one receiving care (Parker et

al., 2015); (2) Person: respect for person is present in all aspects of nursing, with clients, community members, and colleagues (Parker et al., 2015). Respect includes a stance of humility that the nurse does not know all that can be known about a person and a situation, acknowledging that the person is the expert in his or her own care and knowing his or her experience. Respect carries with it an openness to learn and grow. Values and beliefs of various cultures are reflected in expressions of caring. The focus of nursing is the person as whole and connected with others, not the disease or problem (Parker et al., 2015). Persons are empowered by understanding choices, how to choose, and how to live daily with choices made. The person defines what is necessary to well-being and what priorities exist in the daily life of the family; (3) Community: as understood within the model by Parker et al. (2015) a community is defined by its members and is characterized by shared values. This extended concept of community changes from a location of the community, which is a significant characteristic, to self-defined groups within the community who share common interests and concerns, and who interact with one another. Therefore, community is looked upon as a safe place for members and ensures the security of being included and honored while building the community through relationships grounded in acceptance of individual and cultural differences.

The CNPM describes the ability to focus on change and/or development in a behavior and/or skill, and will be used for the project, in NLNIP lectures, and in simulation skills sessions to help the students think critically. Caring will be the focus used when implementing therapeutic communications and nursing skills in the community as the students interact with peers, faculty, staff, and patients (Potts & Gaulrapp, 2013; Parker et al., 2015). The model will be used throughout simulation as students learn and master nursing skills in the clinical environment. During simulation, students will recall and use their learned knowledge to fine-

tune and react to different situations, in the clinical and community environments. The students'

views, experiences, and perspective of nursing are valued and respected, but with the help of

simulation, hands-on experience, and collaboration within the community, the hope is to shape

the high school student's views into a positive light. Increasing their knowledge and influencing

their perceptions in a more positive direction will overarch into the greater community.

Chapter II: Methodology

Needs Assessment

Currently, there is no structured program that exists at GSON to help recruit students into

nursing. The enrollment at GSON has declined and this project is a potential long-term plan to

help increase enrollment and help fill the gaps in the nursing shortage. Although the feedback

from the high school students was the impetus for this project, there are many benefits to GSON

for having the program. The NLNIP can be implemented as a tool: (1) to recruit future nurses

for GSON, thereby improving the enrollment status of the school; (2) to provide awareness of

GSON's existence; (3) to improve community relationships; and (4) to change perceptions and

attitudes towards the nursing profession.

Members of GSON Office of Nursing Research have displayed a desire for wanting the

NLNIP to succeed at GSON. This needs assessment is significant because it is the research team

who will work with GSON faculty and the high school students participating in the NLNIP to

reveal another side of nursing as the research team guides the high school students through

developing a research project of their own. The strategy can inform the community of the work

being done at GSON Office of Nursing Research with the high school students, thereby increasing

the interest in recruitment, as well as inform the students how the clinical nursing and research

are connected.

Understanding and utilizing the NLNIP to help bring about change can have a profound effect on practices. Regardless of the scale, change is a dynamic, active, and on-going process. Before implementing the project (NLNIP), stakeholders (GSON, the Collegiate Medicine and Bioscience Magnet High School, and Washington University) were identified as sharing the interest and need for change (Moran, Burson, & Conrad, 2017). Stakeholders met and decided there is a need for change, and a priority for the nursing profession (Myers, 2013; Moran et al., 2017; Potts & Gaulrapp, 2013; Wilkes et al., 2014).

Preceding the development of the project, there was a willingness of leadership from all three stakeholder organizations involved to support this project. Each organization identified team members and assigned responsibilities for various aspects of the change process. The team met to discuss and share knowledge for implementing the change. It is important to know how much time it takes to plan and engaging all three organizations in the implementation of the project. According to Moran et al. (2017) integrating any innovation, evidence-based practice, or cluster of practices takes time, energy, and resources. Steps of how each organization would get involved with the project were defined and subsequent activities that were needed to move the concept of this project into a reality. For example, the leadership team at the Collegiate Medicine and Bioscience Magnet High School (Collegiate) had to decide and commit to a schedule that the high school students could be assigned for the project. The research team at GSON was devoted to help interview the students, get appropriate attire for them to wear to the labs and simulation hospital, and to help find faculty to make the students experience as enriching as possible. Part of the implementation plan included getting staff and faculty to help set up scenarios, and to provide supplies the project investigator could use to teach and train the students in the simulation labs and simulation hospital. Both research teams from GSON and

Washington University were committed to helping the students work on a project of their own

following their time spent for NLNIP.

To determine if the NLNIP would be an effective tool to develop, an assessment of

GSON was done to discern whether the project was practical for development. Understanding

the importance of evaluating the organization in which the project will take place is helpful in

designing the project for success (Moran et al., 2017). A crucial step was to identify issues

and/or opportunities GSON could provide for the NLNIP and determine if the NLNIP would be

beneficial for GSON. To accomplish this, it was important to look at the attributes, resources,

and strengths GSON has to support the project and what barriers, or weaknesses GSON might

experience that could influence the development of a change project such as the NLNIP. Some

advantages acknowledged were: having exceptional state-of-the-art simulation labs, simulation

resource personnel on staff, strong leadership support, cutting edge technology, and a research

department that supported the NLNIP project. Other strengths and attributes GSON possesses

are having flexible work hours, and, for the most part, very satisfied employees, great teamwork,

and training opportunities for the staff. Weaknesses and/or barriers of GSON are: hiring

inexperienced faculty to teach chief classes, lack of communication between administration and

faculty, with faculty not receiving work schedules in a timely manner, and does not offer sick or

vacation time for employees.

Several opportunities for the project include students' ability to work with research

departments from GSON and Washington University (WU) to develop a class research project;

to learn and practice basic nursing skills in a state-of-the-art simulation lab; to experience

debriefing sessions that will enhance their learning/knowledge; and students' increase in self-

confidence and critical thinking skills. Threats to the project include limited student

participation and possible lack of funding to sustain future programs.

        After sharing the projections with stakeholders, the NLNIP was developed to determine

perceptions and attitudes of high school students towards the nursing profession. To achieve

this, an effective evidence-based practice process was chosen incorporating simulation,

providing hands on basic nursing skills, and observing and evaluating learning comprehension

by incorporating evidence-based scenarios with debriefing sessions for high school students. To

adopt evidence-based practices, the implementation process was addressed with all stakeholders

prior to implementation. The stakeholders were very supportive of the NLNIP and asked if the

program could be offered semi-annually or annually. They looked toward the NLNIP to attract

future nurses into the nursing field. Support of this magnitude from the stakeholders could help

initiate and sustain the NLNIP with dependability. It will also prove to be very beneficial for

GSON to gain positive public awareness and to show that new practices can be prevail in the

community. A key factor learned was that through implementing a carefully planned

evidenced-based practice process, the likelihoods of the organization for embracing new

practices will build its capacity for change.

        Course competencies were reviewed by stakeholders for input as to which skills were to

be taught in the classroom or those to be taught in the simulation labs. Some classroom skills

include the importance of hand hygiene, effective communication, and universal precautions.

Skills for the simulation labs include handwashing/hygiene, applying personal property

equipment (PPE), and answering the telephone using therapeutic communication techniques.

Upon approval of administration, the NLNIP was initiated.

Project Design

The project design for the NLNIP is a descriptive study for program development and evaluation by determining if: (1) high school students who are participants in the study will increase their knowledge of the nursing profession; (2) high school students will learn basic nursing skills; and (3) this will change students' perceptions and attitudes of the nursing profession. The study is comprised of a multi-method evaluation, or descriptive study including questionnaires, and existing data used to obtain information on the intended change of perception, as well as the relations between students' academic performance and self-confidence. Moss, Seifert, and O'Sullivan (2016) state implementing good descriptive reporting answers, the five basic questions: who, what, why, when, where … and a sixth: so, what?

The project design was constructed from the two project objectives which are to: (1) assess the change in perception of the nursing profession among high school students who participate in the NLNIP; and (2) measure the effectiveness of the NLNIP for recruiting high school students into the profession of nursing. The project design will provide clear communication for NLNIP's stakeholders and participants. The design will bring organization to the project, allowing focus on the goals and objectives throughout the program.

Setting

The project will take place at GSON, located in St. Louis, Missouri. GSON is part of Barnes-Jewish College located on the campus of Barnes-Jewish Hospital at WU's Medical Center. GSON is a private institution in an urban setting that was founded in 1902. Undergraduate enrollment in 2016 was 616, with tuition and fees of $19,271 for a trimester-based academic year. The Jewish Hospital School of Nursing was founded as a hospital-based diploma program in 1902. The Barnes Hospital School of Nursing was founded as a hospital-

based diploma program in 1955. The two programs came together in 2005 as a baccalaureate

and higher degree academic institution.

During the first four weeks of the program the high school students are in the simulation

labs at GSON, learning concepts and skills that will be used in the clinical environment. The

remaining three weeks the high school students will spend in the Goldfarb Simulation Hospital

located on the sites of GSON. The Goldfarb Simulation Hospital is staffed by expert simulation

nurses and non-nursing staff members. There are five specialty areas: intensive care,

perioperative, maternity, pediatric, and adult health.

Population

The sample size includes three to nine high school senior students from Collegiate School

of Medicine and Bioscience Magnet High School (Collegiate). The population of interest for this

project is high school students between the ages of 16-18 years old. The high school student

population available for this project includes all students who are seniors at Collegiate.

Collegiate is located in St. Louis, MO and is a four-year college preparatory high school. The

school's unique four-year medical program provides students with project-based learning

experiences under the guidance of Health Science and Technology professionals in the classroom

and with their local partners (BJC Healthcare, Washington University Medical School, Saint

Louis University School of Medicine, Saint Louis College of Pharmacy, and the Brown School

of Social Work), experiential learning and medical research opportunities (Collegiate, 2019).

Collegiate also requires a written commitment from both students and parents to follow the four-

year course sequence, complete a minimum of 100 hours of community service, earn First Aid

and CPR certification prior to graduation (Collegiate, 2019).

GSON and WU formed a partnership with Collegiate in 2016 that included having the high school students meet their community service obligations between the two schools. It was agreed upon that the students would meet this requirement during their senior year of high school. The goal was to have the students learn about research and develop a research project under the guidance of the research teams from both schools. With the development of NLNIP, the students will continue to be responsible for developing a research project; however, if NLNIP is approved, the students will develop their research project after the conclusion of NLNIP. Those students recruited for NLNIP will be the same students who develop the research project under the guidance of GSON's Office of Nursing Research and WU's Research Department.

Prior to participating in NLNIP, parental consent for minors must be obtained. Consent forms will be sent to parents at the same time students are notified they have been selected to participate in the project. Parents are asked to complete, sign, and return (or fax) the assent consent form to GSON, which gives permission for their child to participate in the project. Parents and students are encouraged to ask questions about the project and informed that students will always have the right to withdraw from the project any time they wish (see Appendices A & B).

Tools

Pre-and post-questionnaire tools were newly developed in a collaborative effort, by the DNP student and preceptor without literature contribution, and approved by GSON's Office of Nursing Research. The questions were developed to help answer the clinical question and the project objectives. The questionnaires will be used to help shed light upon the high school student's perception of the nursing profession and share input for future recruitment of these students (Moran et al., 2017; Potts & Gaulrapp, 2013; Wilkes et al., 2014). Additionally, on the

last day of the NLNIP, a program evaluation will be distributed to students to determine if

students are satisfied with the teaching strategies, if program objectives were met, and if

improvements need to be made for future offerings (see Appendices C, D, & E).

GSON stakeholders (Office of Nursing Research's Associate Dean, Project Preceptor)

reviewed and approved the pre-and-post-questionnaires and course evaluation tools after minor

suggestions were corrected such as adding a time line as to when the questionnaires would be

completed. The pre-questionnaires were added to be given to the students during week one and

the post-questionnaire was added to be given to the students during week seven. After making

the suggested changes, the questionnaires were adopted for the project (see Appendices C, D, &

E).

Project Plan

NLNIP's project plan consists of objectives, knowledge-based practice and evidenced

based activities. The purpose of the project plan is to carry out the program in a methodical

progression (Harris, Roussel, Dearman, & Thomas, 2016). To accomplish this, a detailed

description of the implementation process will consist of the following steps and resources.

Lesson plans. Lesson plans will be provided throughout the program and will cover the

40 hours designed for the project. The main purpose of the lesson plans is to provide a step by

step guide for organizing each lesson to help the students achieve the intended goals and

objectives for each class. Faculty will be given a lesson plan to guide them through each day of

the program. The lesson plans were developed by the investigator without assistance from others

but did consult the literature as a guide regarding perception change. After understanding the

influence of change, the investigator determined which basic nursing concepts and skills the

students could perform while gaining insight about nursing; clearing any misconceptions the

student may have had towards the profession. Based on the amount of time each concept,

theory, or skill would take to teach, demonstrate, and have the student perform or practice, the

appropriate timeframe came to 40 hours for the entire project. The investigator could commit to

one day per week for implementing the project. The total time to cover the contents for each

class came to six hours over seven weeks.

The lesson plans will include objectives, skills being taught, timeframe, methods and

rationales, and materials necessary to achieve student understanding and competency. The

lesson plans were chosen for the project to: (a) provide a strategy that will help faculty drive

students' prior knowledge; (b) use activities and student effort that will engage students as active

learners; (c) ensure that all students benefit from the lesson; (d) communicate accurate, relevant

content, key concepts and understandings; and (e) pace and use the class time appropriately. The

investigator used past educational experiences to develop and select lesson plans for the

program. The lesson plans contributed to the following factors: (a) to ensure faculty produce the

desired learning outcome in the students; (b) to follow a guide designed by the investigator that

determined what students needed to know and learn; and (c) to support the selected topic/skill as

important for the program (see Appendix F).

Competency skills checklist. The checklist is used to assess and evaluate student

proficiencies for skills the student will learn in the simulation lab either from faculty

demonstration and/or scenarios. The factors chosen for the checklist to provide a method by

which the students can understand which skills they are assigned and how to demonstrate their

learning. The checklist also provides a means for faculty to evaluate students' ability to perform

assigned skills. Faculty will observe students' performance and will assign a score. Faculty will

assign one of the following scores, depending upon students' performance: (a) Satisfaction

Achieved (SA), (b) Good (G), (c) Strong (ST), and (e) Needs Improvement (NI). All students

are given opportunities to achieve one of the passing scores mentioned above (see Appendix G).

Debriefing tool. High school students will have the opportunity to work with peers

performing skills and learning concepts in a state-of-the-arts simulation lab. A debriefing

session will be held directly following completion of the simulation, case study, and/or scenario.

Productive feedback will be provided from peers and faculty to the students. The debriefing tool

(see Appendix H) was chosen as a strategy to provide structured feedback to students proceeding

their performances and give the students a chance to ask questions or voice concerns regarding

the session (Buykx et al., 2011). The factors that contributed to selecting a debriefing tool for

the program were to: (a) help students understand the impact that the debriefing process will

contribute to learning; (b) communicate the process between student and faculty, enabling

students to perform assigned skills; (c) realize that debriefing requires a two-way communication

process between students and instructors; and (d) understand the process is not just feedback on

performance but a communication process that draws out performance, explanations, and enables

students to develop strategies to improve their performance (Buykx et al., 2011).

Certificate of completion. Students who complete the program will receive a certificate

of completion (Moran et al., 2017; Potts & Gaulrapp, 2013; Wilkes et al., 2014). The certificate

of completion was chosen to acknowledge the only real proof that students can submit to show

that they attended NLNIP. The factors that contributed to selecting the certificate were to: (a)

make sure the certificate was attractively designed; (b) prevent forgery of the certificate by

creating customized certificates on special paper showing GSON's logo embedded in the

background of the paper; and (c) have certificates signed by college officials (see Appendix I).

It should be noted that a partnership was formed between Collegiate, WU, and GSON. The high school students are required by Collegiate to complete community service hours during their senior semester. To recruit students to participate in NLNIP, faculty from GSON will visit Collegiate, provide an overview of the project, and ask for volunteers for the study. To participate in NLNIP students are required to write a 250-word essay describing why they should be chosen to participate in the project and what they can offer the nursing profession. Once students have submitted their essays, they will receive an email and phone call from a staff member in the Office of Nursing Research at GSON inviting them for an interview. A time will be set for an interview. Based on the quality of the essay submitted and the personal interview, GSON faculty will select three to nine students for acceptance into NLNIP. All selected students will be notified they have been selected for the NLNIP and when the program will start. During the first class, all students will receive their uniforms, lab coats, and skills bags. At the end of the project data collection will begin using the data from the pre-and-post questionnaires, course evaluation tool, and observations in the simulation labs and simulation hospital/clinical area.

Students can learn and practice in a simulation lab and feel safe, as repetition will lead to proficiency with hands on basic nursing skills. Concepts and skills introduced to high school students in the simulation labs include a brief history of nursing, hand hygiene, isolation protocols and infection control, bed making, therapeutic communication, answering telephones, and caring. GSON faculty will teach simulation lab skills, scenarios, and concepts throughout the program in a state-of-the-art simulation setting (Aebersold & Tschannen, 2013). A schedule will designate the assembly of each day for the NLNIP which will provide an active day for the high school students (Harris et al., 2016). Following each simulated activity, a debriefing session is provided with feedback. Students will view this time with faculty and peers as a

significant learning opportunity, as they understand concepts, perfect nursing skills, and learn the worth of being part of a team (Harris et al., 2016). The program days are thoroughly filled with lectures, simulation scenarios and skills, building peer relationships and learning the value of team work, and understanding concepts of patient safety and confidentiality.

Prior to clinical simulation rotations, students are provided a tour of the pre-determined clinical site within the Simulation Hospital at Goldfarb (there are five areas that can be assigned for the clinical experience). The clinical simulation rotation process includes GSON faculty meeting with the simulation educator(s) to help select the best clinical simulation area for the students. Several issues are explored during the meeting: (1) acuity of the area: The available simulation area will be appropriate for high school students in the environment. Some of the mannequins are advanced high-fidelity patients that might be very challenging for unlicensed persons to be assigned. Some of the areas include intensive medical/surgical simulation area, high risk maternity area, and/or suites for advanced practice nurses. These areas will be avoided for the high school students, therefore, GSON faculty will request a general medical/surgical area to use such as those the Introduction to Adult Health Nursing students utilize; and (2) simulation staff available for the area. The simulation staff are nurses with degrees that range from BSN, MSN, and/or DNP with special training classes in simulation. These staff members are relied on by educators and faculty to assist in the simulation labs and the simulation hospital areas as they model professional behaviors and set the culture to encourage implementing proper technique and compliance.

Once an area is assigned, the simulation educator will notify GSON faculty and provide the location (type area, room number, and assigned simulation staff member). The GSON faculty will send a thank you email or letter to the simulation manager and inform the students of

the pre-determined area, location, and room number. Students will receive this information prior

to the start of class with directions of the clinical simulation location. Students will meet GSON

faculty for simulation clinicals on Thursdays from 8:00 a.m. to 2:00 p.m. at the assigned

location, unless otherwise informed by faculty. GSON faculty will provide skills handouts for

the simulation labs and clinical simulation hospital environment for the students. Students are

taught basic indirect patient care skills under the supervision of the GSON faculty, such as

answering phones, assisting the faculty or nursing students to make empty beds, passing ice,

passing newspapers, stocking supplies, taking flowers (artificial) and mail to mannequin

patients' rooms, implementing infection control, and proper protective equipment (PPEs), etc.

Below is a weekly breakdown of the program with timeline expectations for the students

as they progress through NLNIP (see Appendix I). All weekly activities are driven by the

program objectives, content, timeframe allowed, and methods and materials used. All student

interactions involve both task (outcome) and relationship (process) skills.

Week one. During week one, the high school students will learn and perform basic

concepts chosen for the program. Materials to be used are handouts of skills, lectures, and

discussions. The methods are pre-questionnaires, concepts, and guidelines taught throughout the

day at GSON. The timeline for this class is 5 hr 45 min. The breakdown for week one includes:

Simulation Labs/Theory Concepts: Importance of hand hygiene – 1 hr 20 min; Universal

Precautions –1 hr; Effective Communication – 40 min; Introduction to Health Care and Nursing

Arts – 1 hr; Body Mechanics – 50 min; Diet and Nutrition – 35 min; and Ambulatory Transfers –

1 hr.

Week two. This week, the students will learn and practice hands-on basic nursing skills

in the simulation labs that will have an impact on how they now view nursing. Program

expectation is to see a positive change of perception and attitude towards the discipline of

nursing in the high school students. Materials to be used are skills checklist, scenarios, videos by

the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO),

discussions, debriefing, handouts of skills. The methods are observational student feedback,

interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5

hr 45 min. The breakdown for week two includes: Simulation Labs: Program Skills such as

Handwashing/Hygiene – 1 hr 15 min; Applying Personal Protective Equipment (PPEs) – 2 hr 30

min; Therapeutic Communication Techniques – 1 hr; and Answering Phones – 1 hr.

Week three. The high school students will possess the necessary skills offered in the

program including the skill of "caring, culturally responsive communication" and will be able to

participate effectively in an interdisciplinary healthcare team under the supervision of faculty/RN

within three weeks of participating in the program. Materials to be used are skills checklist,

scenarios, videos by CDC/WHO, discussions, debriefing, handouts of skills. The methods are

observational student feedback, interventions (changes in knowledge, skills, and attitudes noted).

The timeline for this class is 5 hr 45 min. The breakdown for week three includes: Simulation

Labs: Program Skills: Range of Motion (ROM), Positioning and transferring – 1 hr 30 min;

Feeding – 1 hr 30 min; Bathing/Oral care/Dentures – 1 hr 30 min; and Caring – 1 hr 10 min.

Week four. In week four, the high school students will begin to demonstrate leadership

qualities under the supervision of faculty/RN within four weeks of participating in the program.

Materials to be used are observational student feedback, interventions, leadership traits and styles

(changes in knowledge, skills, and attitudes noted). The methods are observational student

feedback, interventions (changes in knowledge, skills, and attitudes noted). The timeline for this

class is 5 hr 45 min. The breakdown for week four includes: Simulation Lab: Program Skills:

Passing Ice – 1 hr 50 min; Stocking Linen and Supplies – 1 hr 20 min; Handling Specimens – 1

hr 10 min; and Simulation Hospital Tour and Orientation – 1 hr 25 min.

Week five. Students this week begin to demonstrate and apply skills learned in the

simulation labs. Methods to be used are students' knowledge and comprehension obtained from

participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week five

includes: Simulation Hospital Clinical Rotation: All skills learned in the simulation lab will be

practiced during the simulation hospital rotation if the opportunities are present.

Week six. High school students will demonstrate skills learned in the simulation labs

with more confidence than previous weeks while in the simulation hospital setting during week

six. Methods to be used are post-questionnaires, students' knowledge and comprehension

obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for

week six includes: Simulation Hospital Clinical Rotation: All skills learned in the simulation

lab will be practiced during the simulation hospital rotation if the opportunities are present.

Week seven. In this week, high school students will require minimal supervision as they

demonstrate skills learned and practiced in the simulation hospital setting with proficiency.

Methods to be used are students' knowledge and comprehension obtained from participating in

the NLNIP. The timeline for this class is 6 hr. The breakdown for week seven includes:

Simulation Hospital Clinical Rotation: All skills learned in the simulation lab will be practiced

during the simulation hospital rotation if the opportunities are present.

Procedures for data collection. Data collection is the process of gathering and

measuring information on variables of interest, in an established systematic fashion that enables

one to answer stated research questions, test hypotheses, and evaluate outcomes (Robles, 2015).

There are two general types of data collection methods (quantitative and qualitative) that can be

used in any evaluation (Robles, 2015). Each data collection method has advantages and

disadvantages. A mixed methods approach helps to overcome the weaknesses that come from a

single method. Process and outcome evaluations often demand diverse types of data collection

methods. For the NLNIP, both methods will be implemented for data collection.

The investigator will collect data for the NLNIP and receive data collection training over

five to seven days by research faculty of GSON and can be directed to them for clarity if needed.

The training will involve the following: (1) Determine the value of the information: Why is

NLNIP needed? The program NLNIP is a valuable tool that is needed to help assess students'

current perception towards the nursing profession and utilizing the NLNIP as a recruitment tool

into nursing; (2) Determine when the data will be used? The data collection will take place

throughout the duration of the program; (3) Determine exactly what you want to know: The

program NLNIP was developed to assess high school students' attitudes and perceptions of the

nursing profession and look at ways to use NLNIP as a recruitment tool to help close the nursing

shortage gap; and; (4) Determine who will find the information. The investigator will be the

only person collecting data, entering the findings into a password protected computer, and

storing the findings in a secure file cabinet at GSON while maintaining Health Insurance

Portability and Accountability Act (HIPAA) privacy of any document involving the high school

students. There are no anticipated barriers to data collection.

Evaluation and sustainability plan. The plan for NLNIP would be to review the data

with stakeholders (GSON, WU, and Collegiate) and determine if the program needs changes

based on the feedback and/or if the program could be expanded. If expansion is considered, an

option for the program would be to consider offering the NLNIP to other schools and include

younger students. This would help sustain the program long-term by offering NLNIP to junior

high and high schools in the area. For now, the program will continue to rely on volunteers.

However; for sustaining NLNIP in the future, it will be worth it to do some research to

investigate offering the program to extend into government agencies. For example, the United

States Labor Department's Employment and Training Administration (ETA) is an agency that

NLNIP could work well with as a partner (United States Department of Labor, 2017). Currently,

the ETA provides opportunities for young people who are seeking educational careers. The

ETA's vision is to administer effective programs that will enhance employment opportunities

and business prosperity (United States Department of Labor, 2017). NLNIP can become a

stepping stone to reach that goal. One of the ETA's principles is to ensure that our youth

workforce training programs have a strong educational component, with income opportunities

and educational credentials (United States Department of Labor, 2017). What a fantastic

opportunity this could be for NLNIP! Funding for GSON could be obtained, conceivably a

contract with the government, and paid positions for faculty to help teach the program. NLNIP

would certainly become a very successful recruitment tool for Goldfarb should this take place.

Involving stakeholders during all stages of the NLNIP can lead to early buy-in, successful

program design, and the establishment of long-term support for the program. Engaging the

stakeholders can also result in establishing relationships and effective communication on a

regular basis resulting in the success of the NLNIP. Having input from all stakeholders will

address any issues of the program and can determine if more or different data is needed to gauge

the effectiveness of the NLNIP.

Data Analysis

Data will be collected to help identify students' perception of the nursing profession and determine various strategies to implement to facilitate a change in their perceptions towards the nursing discipline (Myers, 2013; Potts & Gaulrapp, 2013). Data analysis is needed to summarize the project data, identify the relationships between project variables, as well as identify the differences between the variables, and finally to predict outcomes (Moran et al., 2017). It is important to appreciate and understand how high school students view the nursing profession to help them perceive nursing in a non-biased manner. Because their views are so important to know, data will be collected through pre-and-post questionnaires administered at the start and conclusion of the project. The questionnaires were designed in relationship with the Community Nursing Practice Model, with focus on "community caring." The pre-and-post-questionnaires about perceptions of nursing include qualitative and quantitative measures. High school students will receive the pre-questionnaire the first day the students arrived for class, and the post-questionnaire will be given the sixth day of class (Myers, 2013; Potts & Gaulrapp, 2013).

Process used to prepare and analyze the data. The data from the pre-and-post questionnaires and course evaluation tools are confidential, and the investigator intend to store the results in a protected file cabinet at GSON. The investigator will also be responsible for transcribing project data; however, all data transcribed and entered into the computer will be rechecked (not necessarily entered twice) by research faculty to ensure there were no mistakes during the entry process. The investigator received data collection and entry training by GSON research faculty. If needed, a statistical consultant is available from WU.

Qualitative or quantitative methods to draw inferences from the data. Qualitative and quantitative methods can be used together to retrieve both structured and unstructured data

(Wisdom, Cavaleri, Onwuegbuzie, & Green, 2011). For the NLNIP, both methods are used.

When the qualitative method is used, it's more of the position of being unstructured or

exploratory. The qualitative method here is mainly concerned with gaining insights and

understanding on underlying reasons and motivations, so they tend to reveal profound results.

This understanding is what NLNIP is after as the program tries to change high school students'

attitudes and perceptions towards the nursing profession. Since they cannot be quantified,

measurability becomes an issue. This lack of measurability leads to the preference for methods

or tools that are largely unstructured or, in some cases, may be structured but only to a very

small, limited extent (Austin & Sutton, 2014). Some of the qualitative tools that will be used in

the NLNIP are paper surveys or questionnaires.

Questionnaires often utilize a structure comprised of brief questions and, in the case of

qualitative questionnaires, they are usually open-ended, with the respondents asked to provide

detailed answers, in their own words (Wisdom et al., 2011). The method is similar to essay

questions. The pre-and-post-questionnaires used in the NLNIP given to the high school students

at the beginning and the end of the program (quantitative), are closed questions, graded on a

Likert scale. An advantage for using questionnaires is that they are designed to collect

standardized data and are ideal for use in large populations or sample sizes of respondents

(Wisdom et al., 2011). Another advantage is the large amount of detail provided will aid

analysis of data (Wisdom et al., 2011). A disadvantage to using questionnaires is the substantial

number of respondents (and data), combined with the elevated level and amount of detail

provided in the answers, will make data analysis quite tedious and time-consuming (Austin &

Sutton, 2014). One more disadvantage is that this can be very limiting to the respondents, since

it is possible that the respondent's actual answer to the question may not be in the list of options

provided on the questionnaire. Data is thereby restricted by the lack of details (Austin & Sutton, 2014). There is also a course evaluation that the high school students will complete at the end of the program (see Appendix E). The course evaluation will use open-ended questions (qualitative).

The method used to analyze the data includes utilization of charts and graphs. The qualitative data will be analyzed by observations and interactions with the students and from student responses from the course evaluation tool (see Appendix E). There are seven open-ended questions on the course evaluation tool for the students to answer. Once the students have completed the questionnaires and course evaluation tools, the data are collected and stored safely in a locked cabinet, accessible only by the investigator. Any observational data is categorized in Word documents and/or Excel spreadsheets. All student data is anonymous, and confidentiality maintained following the Health Insurance Portability and Accountability Act (HIPAA).

Institutional Review Board and/or Ethical Issues

This practice change project CUHSR 47-18 was reviewed and approved as expeditable under Category 7 by the Committee on the Use of Human Subjects in Research (CUHSR) at Bradley University (see Appendix K). The project was initially submitted as a full application to WU's institutional review board (IRB) for approval and was withdrawn as WU would not take oversight for the project given that it was for the investigator's role as a student at Bradley University and not as an employee at Barnes-Jewish Hospital or GSON. WU's role is only as a site for the investigator's research (see Appendix L). The level of review for the project was reviewed by the Human Subjects Office (HSO) and consents were developed. An assent consent for minor children (see Appendix A) and an informed consent for parents (see Appendix B) were developed and approved by CUHSR prior to implementing the project, for any student under 18

years old (CITI Program, 2017). When children or minors (<18 years of age in many states,

including Missouri) are involved in research, the regulations require the assent of the child or

minor and the permission of the parent(s), in place of the consent of the minor students.

In the state of Missouri, investigators should submit both Parent Permission and Child

Assent forms, written in language that is easily understandable for both the parents and the child

(i.e., at 8th grade reading comprehension level), which covers the following points: (1) What the

study is about; (2) Why he/she qualifies for the study; (3) The voluntary nature of the study; (4)

The procedures that will be done; (5) Potential benefits & potential risks; (6) An assurance that

he/she will be treated the same whether he/she agrees to join the study; (7) An invitation to ask

questions; and (8) Assurance that he/she may withdraw from the study after discussing it with

his/her parents. Out of respect for children as developing persons, children should be asked

whether they wish to participate in the research, particularly if the research: (1) does not involve

interventions likely to be of benefit to the subjects; and (2) the children can comprehend and

appreciate what it means to be a volunteer for the benefit of others. The IRB must determine for

each protocol - depending on such factors as the nature of the research and the age, status, and

condition of the proposed subjects - whether all or some of the children are capable of assenting

to participation (CITI Program, 2017).

Although the clinical environment is in a simulation hospital, Health Insurance

Portability and Accountability Act (HIPAA) will be enforced to prepare the students the proper

way to behavior to safe guard the patient's information. One of the most common ways a breach

occurs is for an employee or student to inadvertently say or ask something about a patient in the

presence of someone else who should not have access to the information; therefore, HIPAA

education will be provided, including an accurate assessment of potential risks to the students

prior to going to the hospital clinical setting. Patients' protected health information (PHI) will be

kept confidential and private to the extent permitted by law. Students will have very limited

access to the patient's PHI records. Students may look at training records to determine a

patient's basic information such as name, medical record number, date of birth, and room

number. This information may be needed for weekly activities in the simulation clinical setting.

Chapter III: Organizational Assessment and Cost Effectiveness Analysis

Organizational Assessment

GSON administrators recruits individuals to prepare them for a future in nursing and

provides higher education to nurses already in nursing. The project (NLNIP) was driven by the

mission, vision, and core values of GSON. Throughout the initiation of the NLNIP, GSON is

providing outreach to high school students in the community, and offering an opportunity for

students to learn firsthand about nursing as they experience hands-on basic nursing skills and

activities. This strategy will improve the image of nursing in the community and build a stronger

relationship between GSON and its surrounding communities (Moran et al., 2017). It will also

improve high school students' perceptions of the nursing profession. The high school students

are introduced to nursing through a non-licensure nursing internship program (NLNIP) that will

provide a state-of-the-art program using high tech simulation labs, and teaching the latest EBP

skills, and concepts to high school students in the community (Moran et al., 2017). The project

has the support of the leadership team in the Office of Nursing Research at GSON, as well as the

Dean. Many faculty members have asked to participate in the project as a member of the

Intercollaborative Professional Plan (ICP) team, to help carry out the program (Moran et al.,

2017).

Potential facilitators and barriers. The major potential barriers to implementation are: lack of responses from the students by the deadline or a lack of parental approval (will send emails and make phone calls to the students/parents as a reminder); stakeholders inability to understand the data collection, monitoring and/or evaluation process; lack of knowledge regarding skills required for implementation causing decreased self-confidence; poor simulation lab setup or simulation lab cancellation; lack of clear program content; and lack of faculty for simulation and hospital.

Factors that will facilitate implementation are: support from administration; personal motivation to implementing project; successful implementation of program content; encouragement; effective communication; access to resources such as the simulation lab and clinical sites; a good relationship with the high school from which we will recruit potential participants; and a mission-driven program (GSON).

Risks and unintended consequences. Some potential unintended consequences that NLNIP could have include: changes with school policies that no longer allows high school students to take part of the project; inability to obtain parental consent; clinical facilities no longer providing clinical sites for the high school students; inability to provide adequate staff for the simulation lab; inability to obtain a budget to implement the project; and withdrawal of high school students from the project. To minimize some of these risks, an interprofessional collaborative practice (ICP) team for NLNIP has been put in place. One of the team's responsibilities is to monitor and track program risks and implement appropriate actions.

Interprofessional collaborative practice team.   The American Nurse Credentialing Center (ANCC), a subsidiary of the American Nurses Association (ANA), asserts with their most recent Magnet® Application Report (Moss et al., 2016) that nurses should demonstrate their

involvement in interprofessional collaborative practice (ICP) and the importance of their team

members (Moss et al., 2016). ICP team members work together around a common goal, trying

to bring about change in the workplace. The team for the NLNIP must have a clear

understanding of their roles on the team and the tasks required of them to achieve optimal

outcomes based on the program objectives to help bring about change. Members functioning as

part of the team must realize that leadership is distributed throughout the team. As tasks change,

and objectives and goals are met or modified, team leadership may also be adjusted appropriately

(Moss et al., 2016). It is imperative for team members to build trust among those in the group

and gain mutual respect through consistently sharing information in a way that promotes full

disclosure and transparency. As the NLNIP is implemented, the ICP team will work towards

achieving program success by sharing information, making sure the project objectives are met,

and ensuring the program stays on schedule with minimum risks. An important strategy for this

team is to assess NLNIP for risk exposure routinely by evaluating the current environment for

new risks or addressing ways to modify existing risks.

The team members are faculty from the Office of Nursing Research at GSON; a

Counsellor from Collegiate; and the investigator. WU could not provide a name of an individual

to be on the team but stated that a representative or an educator would attend the meetings, when

appropriate. According to the American Association of Colleges of Nursing (AACN, 2006), the

DNP Essential VI: Interprofessional Collaboration for Improving Patient and Population Health

Outcomes, states that the DNP student is prepared to employ effective communication and

collaborative skills in the development and implementation of practice and can lead

interprofessional teams in the analysis of complex practice and organizational issues. This team

will also employ consultative and leadership skills with intraprofessional and interprofessional

teams to create change in health care (AACN, 2006). The ICP team will monitor and track risk

and implement mitigation actions (specific actions or process) for making sure the NLNIP

progresses according to schedule. Each member is assigned specific responsibilities to ensure

success. For example, the high school counsellor is assigned to keep track of the students'

attendance schedule for days they are to attend the NLNIP. Implementing action plans for each

team member helps to achieve the objectives of the program.

Cost Factors

A key element of the project proposal is the project budget (Moran et al., 2017). It is a

critical tool that will be used by several separate groups involved in the project, such as the

Intercollaborative Professional Plan (ICP) team who will use the project budget to keep the

project on track. The leadership teams (GSON and Collegiate) will use the project budget as a

guideline to fulfill certain project milestones, and project faculty managing the day to day

operations will use it to determine the success of their efforts (Moran et al., 2017). The project

budget will also include cost factors for faculty, simulation staff, uniforms, lab coats, equipment

and supplies such as pens, paper, printing, and simulation supplies for skills being taught (Moran

et al., 2017). An estimated projected budget to cover the above would range from $1,029 to

$1,641.00. Faculty will be volunteers in the project and can add to the experience to their

service record (see Appendix M). Although there will not be an immediate dollar amount as an

earning revenue tool implementing NLNIP, it is however, a potential for increasing future

enrollments for GSON. Students participating in NLNIP may enroll in another school to take

nursing prerequisites, then apply to GSON to achieve the BSN. Another financial gain for

GSON is that NLNIP is staffed almost entirely by volunteers. Faculty teaching in the program

are classified as volunteers; therefore, there is no additional pay for faculty nor increase in the

budget for teaching in the NLNIP. This could be a huge savings for the school. Even better, the

students learn about the nursing profession and receive hands-on training in state-of-the-art

simulation labs and clinical rotations that could change their perceptions, attitudes, and beliefs

towards the nursing profession.

Chapter IV: Results

Analysis of Implementation Process

The NLNIP was developed as a descriptive study to assess high school students'

perceptions and attitudes towards the nursing profession and to use as a recruitment tool utilizing

pre-and-post-questionnaires, course evaluation tools, and student observations. The data was

analyzed from quantitative (questionnaires) and qualitative (course evaluations) feedback from

students' answers. A Likert scale was used for the questionnaires using closed-ended questions

and the course evaluation tools asked open-ended questions. The questionnaires and course

evaluation tools were able to link the NLNIP's objectives. Five categories were used for

classification for analyzing and measuring the project data: positive attitudes, perception change,

knowledge of nursing, community reputation, and nursing as a career.

During the first and sixth week of the project, the pre-and-post-questionnaire tool was

provided for the four participates and collected after completion. The students also received the

course evaluation in the seventh week. Students were instructed not to put names on the

questionnaires or course evaluation tools. This was done to prevent revealing identities of the

students. Instead, prior to receiving the questionnaires or course evaluation tools, students pulled

random tickets with numbers from a jar and were instructed not to show or tell anyone which

number they drew. The numbers ranged from 301-304. Students were instructed to use these

numbers whenever they completed project tools. Otherwise, students used their names to

communicate but did not share project numbers with anyone, including the project investigator. All data analyzed was stored or entered according to the numbers selected. Student confidentiality was always maintained. Data was stored in a secure file cabinet and or password protected computer with limited access by the project investigator. Key strengths and weaknesses of the implementation process were identified.

Lessons learned. Charts and graphs were used to communicate lessons learned, what could have been better planned, recognizing behavioral changes, and recommendations for community and future projects. An important lesson learned occurred two weeks before the start date for the NLNIP. The initial plan was to implement the project at one of the acute facilities of BJC or WU, but due to a change in policy regarding students, neither facility could participate with the high school students. After presenting this dilemma to the ICP team, it was determined to have the project implemented at GSON. Another lesson learned occurred with the development of the pre-and-post-questionnaires. They were designed to be different which made it difficult to compare the results. However, each questionnaire provided valuable information that linked data results to the project objectives, identifying student perceptions and attitudes towards the nursing profession and answered the question whether the NLNIP could be used as a recruitment tool.

Implementation successes. Choosing a dedicated team to help the NLNIP stay on track and meet project objectives proved to be very important for the project. First, the ICP team was instrumental meeting goals and deadlines during the implemental phase. The ICP team also provided excellent support to NLNIP faculty and students. Other great teams that assisted and supported the NLNIP were the research team and simulation staff members. Both teams were wonderful! The research team embraced the students as they mentored and assisted the students

in the development of their research project. The simulation staff members provided constructive

feedback throughout debriefing sessions and always provided equipment and supplies to perform

skills. A special strength of the NLNIP were the students. Watching the students interact with

the nursing students and listening to subtle comments regarding the nursing discipline was

enjoyable to witness. During each class, the students exhibited excitement as they worked

together with the nursing students, faculty, and staff.

Participant feedback. Gaining feedback from students regarding knowledge revealed

gaps and learning opportunities. The students' high school lacked brochures or literature on

nursing. There were multiple brochures and material informing students of many careers but

none for nursing. Students also implied that there was no mention of, or encouragement for

students to pursue nursing as a career.

Comprehensive learning. Each week high school students were taught basic nursing

skills, followed by practicing the skills. At the end of the day, a scenario was performed by the

students. Students were placed into two groups to evaluate their comprehensive learning. A

debriefing session was done with the students following the completion of each group scenario,

led by faculty.

Recruitment. Potential students for the NLNIP were selected from Collegiate, in St.

Louis, Missouri. There were no difficulties recruiting applicants. The recruitment process

started by contacting the high school and soliciting candidates from the entire senior high school

class. All senior students who attended the auditorium assembly were solicited for the project

rather than by solicitation of specific students (see Appendix J). The investigator made a general

announcement regarding the NLNIP and a sign-up sheet with instructions for those interested in

participating in the project was provided. The instructions called for senior high school students

to apply and submit essays by a certain date. A total of eight students responded and submitted

essays as instructed for the project. Unfortunately, four of the eight had to be rejected because

they were not seniors; one sophomore applied, and three student essays were not received until

after the due date. Overall recruiting for students as participants went as planned except for the

small sample size and learning a few weeks before the NLNIP was to begin that the clinical

facilities previously requested could not provide clinical sites for the high school students to

practice skills learned due to a change in policy. Trying to find a location for the project caused

the timeline to start later than anticipated. Review the recruitment timeline in Appendix J for

specific dates and times for the NLNIP's start dates and times.

   Adjustments. Because clinical facilities were no longer available for the students, an

adjustment had to be made to the project. Therefore, the decision was agreed upon by the ICP

team that the NLNIP would be implemented at GSON's Simulation Labs and Simulation

Hospital areas. The medical/surgical area was selected and utilized for the project. If the

opportunity occurred to implement the NLNIP again, there are several things that would be

done differently such as (1) to prepare a recruitment presentation to be given to parents. This

presentation would have pertinent information about the project and identify any problem their

child might encounter completing the essay requirements; (2) develop a brochure describing the

NLNIP and provide primary investigator's professional contact cards if student or parent have

questions; (3) accepting all high school students from any high school as potential candidates

for the NLNIP versus only senior high school students attending Collegiate. As a matter of fact,

seeking recruitment for the project at the middle high school level could be very beneficial in

the face of the nursing shortage gap. The earlier the students are made aware of the nursing

profession, the greater chance there is for recruiting these students as future nurses. Of course,

the program would be adjusted for the younger students and designed as a one- or two-day

seminar instead of a seven-week program.

   Theory. The theoretical framework used to guide the NLNIP was the Community

Nursing Practice Model (CNPM). There are three essential values which were followed

throughout the program: persons are respected; persons are caring, and caring is understood as

the essence of nursing; and persons are whole and always connected with one another in

families and communities. Parker et al. (2015) states that the CNPM is based on concepts and

relationships to guide nursing practice for the community. Following this framework, proved to

be successful for the NLNIP. The program curriculum, which was based on nursing concepts to

guide evidenced-based nursing education and practice taught in the program, was followed. All

contents for classroom lessons and simulation lab skills were conducted according to the

NLNIP's curriculum. Each week went as planned but, there were a few modifications to the

curriculum. The time allotted for classroom concepts and theory did not take the full six hours.

Classroom time took approximately four to four and a half hours to complete (including breaks).

However, the skills took the entire time allowed for each class. The students wanted to stay

longer but were not allowed or encouraged to do so. Faculty members who observed the

students in the labs gave positive feedback on the students' abilities to perform skills.

   The CNPM was used throughout simulation as students learned each skill. Some of the

students were able to master many of the nursing skills in the clinical environment (simulation

lab and simulation hospital). During the simulation lab, faculty demonstrated each skill and

answered students' questions. After demonstration, the students practiced each skill and were

checked off by faculty. Each skill was given a grade (Satisfaction – SA, Good – G, Strong – ST,

Needs Improvement – NI). If the student did not achieve a passing grade, the student was

encouraged to practice the skill until able to receive a passing grade. By the fourth week, all

students had achieved a passing grade. Now the students were ready to attend the GSON

Simulation Hospitals.

  Simulation labs/hospital. The Simulation Hospital rotation was implemented using two

nursing division-like hospital units housing eight mannequins per lab were used for the

simulation activities. All simulation activities were taught by faculty during each class. Each

lab and hospital class session lasted six hours and the weekly sessions continued for seven weeks

(see Appendix F). The first four weeks were devoted to teaching the students nursing theory in

the morning followed by simulation practice of the skills learned earlier. During each simulation

session, the four students were divided into two groups. The groups worked as teams to apply

theory learned in the classroom to their practice in the simulation lab. During the simulation lab,

faculty demonstrated the nursing skills to the students and answered students' questions. The

students were given the opportunity to practice the skill during each lab session. Each week

following the mastery of nursing skills, a simple scenario was performed. The simulation staff

members provided the necessary supplies for each skill.

  During the last three weeks, the students were given scenarios of real-life situations to be

performed in the Simulation Hospital. The students were given instructions by the charge nurse

(faculty) of what tasks or skills needed to be performed. The students worked as a team. One

student took the role as the nurse, performing learned skills without assistance from faculty or

their peer. The other student took the role as the patient, stationed in the control room, speaking

to the "nurse" student as if a "patient." Each student took approximately 30-40 minutes

performing the scenario. Once the scenario was completed, the students would switch

nurse/patient roles. After both teams completed the scenarios, a debriefing session took place

with faculty. The students were given three scenarios to perform. If students required more practice, they could practice before the next scenario.

Debriefing. Following the completion of the skills, a debriefing session was held with the students. The debriefing session offered positive reinforcement regarding the students' successful completion of the skills and offered suggestions for any error which may have occurred. According to Moran et al. (2017) "communication and feedback should be given to identify any potential problems early in the implementation phase and to address them before they become major issues" (p. 336). Debriefing sessions lasted 20 to 30 minutes.

During week five, the students completed the remaining three weeks of the NLNIP in the GSON Simulation Hospital area. Here they were able to practice all skills learned in the simulation lab but now they were being evaluated for knowledge, for applying critical thinking skills, and for their level of competence performing each skill. The students appeared more confident and required less coaching on the skills. The students expressed excitement to perform weekly simulation exercises. Faculty provided debriefing sessions and observed much collaboration and participation in discussion from the students.

Questionnaires and course evaluation tools. The students received the pre-and-post questionnaires as well as the course evaluation, at specific times. On the first day of the project, following introduction of the course syllabi, a description of the change project (NLNIP) was presented to the students. A pre-questionnaire was distributed. Students were given 15 minutes to complete the 15 questions containing feelings of nursing, using a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). Students were reminded that participation was voluntary and student completion of the questionnaire served as acknowledgement and consent. Students were informed to omit their names from the

questionnaire. Students were informed that the questionnaire would not affect their

participation in the class. Students completed the questionnaire without assistance. All four

students completed the questionnaire.

The post-questionnaire was distributed to all four students at the end of class during week

six. Students were given the option to complete the questionnaire. Students were directed to

omit their names on the questionnaire. Students were informed that answering the questionnaire

would not affect their participation in the class. Students completed the questionnaire without

assistance. At the end of class during week seven of the NLNIP, the course evaluation form

was distributed to the students. As with the questionnaires, students were given the option to

complete the evaluation and were directed to omit their names on the evaluation form. Students

were informed that answering the questions on the course evaluation would not affect their

participation in the class. Students completed the evaluation without assistance.

Analysis of Project Outcome Data

The two project objectives were to: (1) assess the change in perception of the nursing

profession among high school students that participate in the NLNIP; and (2) measure the

effectiveness of the NLNIP for recruiting high school students into the profession of nursing.

These objectives were notable as the students participated throughout the entire project, and the

effect of change that the NLNIP had on the high school students was very important and

significant to the project. Students verbalized positive statements regarding the nursing

profession and half the students stated they would pursue nursing as a career.

Expected outcomes for the NLNIP were both quantitative (i.e., objective data: observing

the students in the simulation labs, teaching effective communication, concepts for universal

protocol, hand hygiene, and a few other nursing skills) and qualitative (subjective: share

interesting experiences related to topics, viewing patients as individuals, and with the concept of

caring). The project outcomes helped to measure students' knowledge, confidence, application,

and awareness, in community engagement (working alongside nursing students), education, and

basic nursing skills (Moran et al., 2017). The data collected from the project provided reports for

analyzing the data, and various resources to help implement activities using the results to support

and promote future action – from perfecting the program so it is more efficient and effective, to

using the data in strategic planning to promote future action of recruiting high school students

into the nursing profession (Kay et al., 2014; Moran et al., 2017). The project NLNIP used

outcome interview tools to effect change in high school students' perceptions of the nursing

profession. Pre-and-post questionnaires were implemented to ask high school students aged 16-

18 to answer questions before and after the program based on 5 indicators (positive attitudes,

perception change, knowledge of nursing, community reputation, and nursing as a career); aimed

at demonstrating the impact of an educational program lasting seven consecutive weeks. The

rating scale used was a point 5 Likert scale (1-5: strongly disagree to strongly agree). The

questionnaires and course evaluation tools were very instrumental linking the project's

objectives throughout the program.

   Moran et al. (2017) state, all stakeholders must be updated on all results. The following

results were revealed to all stakeholders: There were four students who participated (N=4). The

average age of the students was 16.7, with one student from India, two African American

students, and one Caucasian student; all females in their fourth year or last year of high school as

seniors. The questionnaires uncovered three of the four students had chosen to participate in

NLNIP because a family member was in the nursing profession. One student changed her

perception of nursing after participating in NLNIP and learning more about the profession. Two

students stated their perceptions were positively stronger regarding the nursing profession after

participating in the NLNIP; however, both indicated they had nurses in their families but would

pursue other professions (veterinarian, computer science). One participant did not have a nurse

in the family but stated her best friend's mother was a nurse. This student stated she planned to

pursue nursing following prerequisites. All in all, the NLNIP's objectives were answered as

noted by two of the four students' stating they planned to enter nursing after taking nursing

prerequisites following high school. The data collected will help defend the need for the

program and sustaining future NLNIP programs. Although two students changed their career

choice to pursuing the discipline of nursing, a third student was undecided (veterinarian focus).

Charts and graphs below disclose responses of the high school students. The four

students were assigned random numbers categorized 301 – 304 to prevent revealing their

identities. The figures show results based on five indicators: community reputation, knowledge

of nursing, nursing as a career, positive attitude, and perception change. The charts and graphs

state the raw cumulative score (RCS) of how each student answered the questions on the pre-

questionnaire relating to the five indicators, selecting 1-5 on the Likert scale (strongly disagree to

strongly agree). The RCS indicates the association of what could have been chosen by the

students and the numbers assigned to a question from the Likert scale. Each question is assigned

up to five cumulative points, depending upon the student's selection from the Likert scale. A

positive percentage score is $\geq$ 75% of the total RCS. The pre-questionnaire questions and

answers are provided below:

Mark "X" in the correct numeric response to each question

1 = Strongly Disagree – 2 = Disagree
3 = Neutral – 4 =Agree – 5 =Strongly Agree

#	QUESTION			1	2	3	4	5		
1	High school prepare students to pursue nursing as a career.									
2	There are brochures about nursing at my high school.									
3	I need more information to consider nursing as a career.									
4	I have a positive perception of the nursing profession.									
5	My parents have high values regarding the nursing profession.									
6	My parents would completely support me if I chose the nursing profession as a career.									
7	Nurses seem to be strong and knowledgeable role models.									
8	Nurses have a great reputation in the community.									
9	Nurses should change their image.									
10	I would attend classes about nursing if given the opportunity.									
11	I can commit to a program to learn more about nursing.									
12	I would like to learn basic nursing skills that will help me understand what nurses do.									
13	Attending nursing classes will help change my perception and attitude towards the nursing profession to a positive one.									
14	I have always wanted to become a nurse.									
15	Following the basic nursing classes, I will consider taking nursing prerequisites then apply to nursing school.									

Figure 1. Pre-questionnaire distributed to student participants in week one of NLNIP.

The following results gives an indication of how the students answered the questions relating to perception and attitudes toward the nursing profession (questions 4, 5, 13, 14) and the possible raw cumulative score (20) associated with the five indicators. A positive percentage score is $\geq$ 75% of the total RCS.

The Students' Perception and Attitudes Towards the Nursing Profession: Possible 20 Raw Cumulative Score
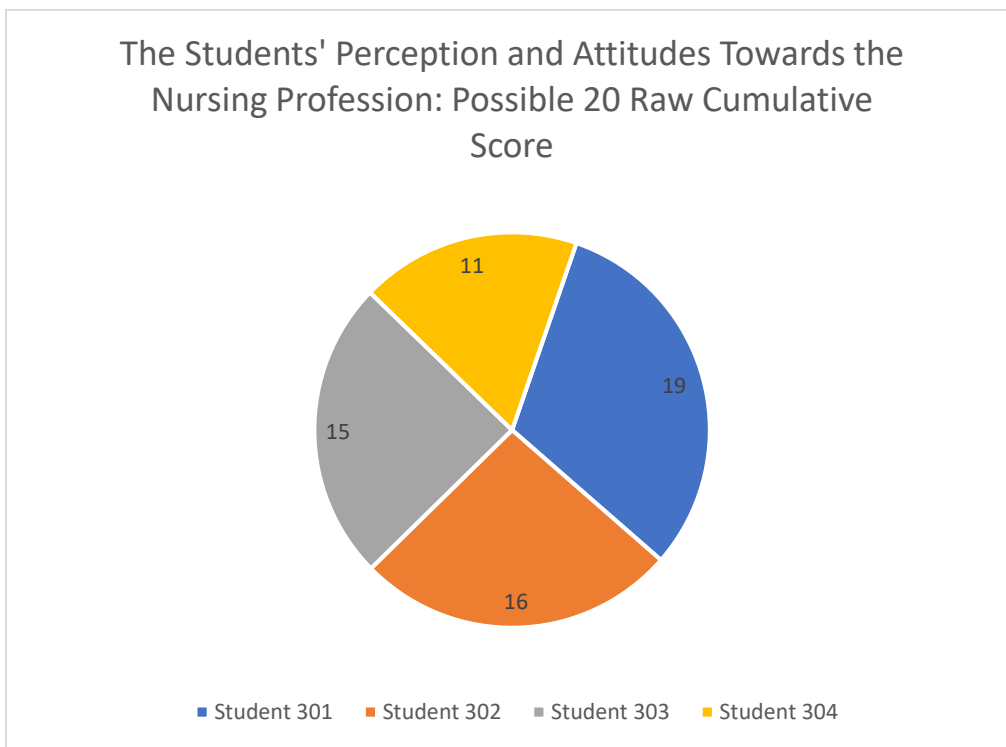
Figure 2. Student perception and attitudes.

Table 1

Student Perception and Attitudes with Percentages

Student	RCS	Percentage
301	19/20	95%
302	16/20	80%
303	15/20	75%
304	11/20	55%

The following results gives an indication of how the students answered the questions regarding the need for positive change of the nursing profession in the community and the image of nursing (questions 7, 8, 9), as well as the possible RCS (15) associated with the five indicators. A positive percentage score is $\geq$ 75% of the total RCS.
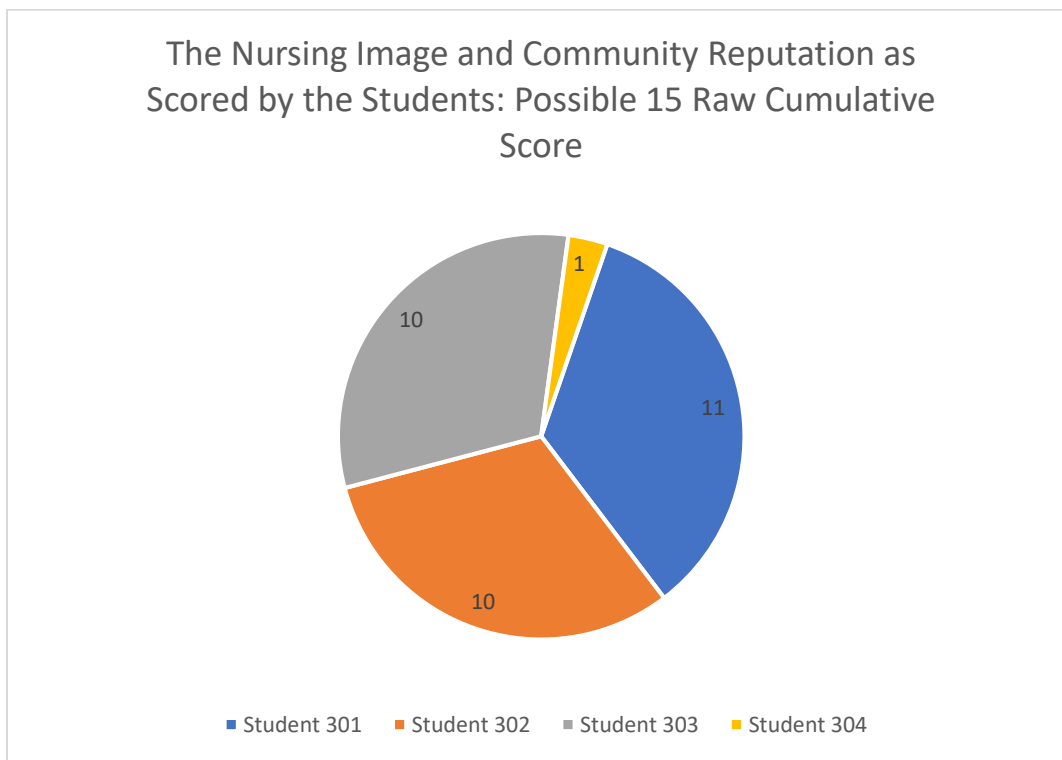
Figure 3. Nursing image and community reputation.

Table 2

Nursing Image and Community Reputation with Percentage

Student	RCS	Percentage
301	11/15	73%
302	10/15	67%
303	10/15	67%
304	1/15	7%

The results below indicate how the students answered the questions relating to the nursing profession and students' positive change towards pursuing nursing as a career (questions 1, 2, 3, 6, 15). The student can achieve up to 25 possible RCS associated with these indicators. A positive percentage score is $\geq$ 75% of the total RCS.
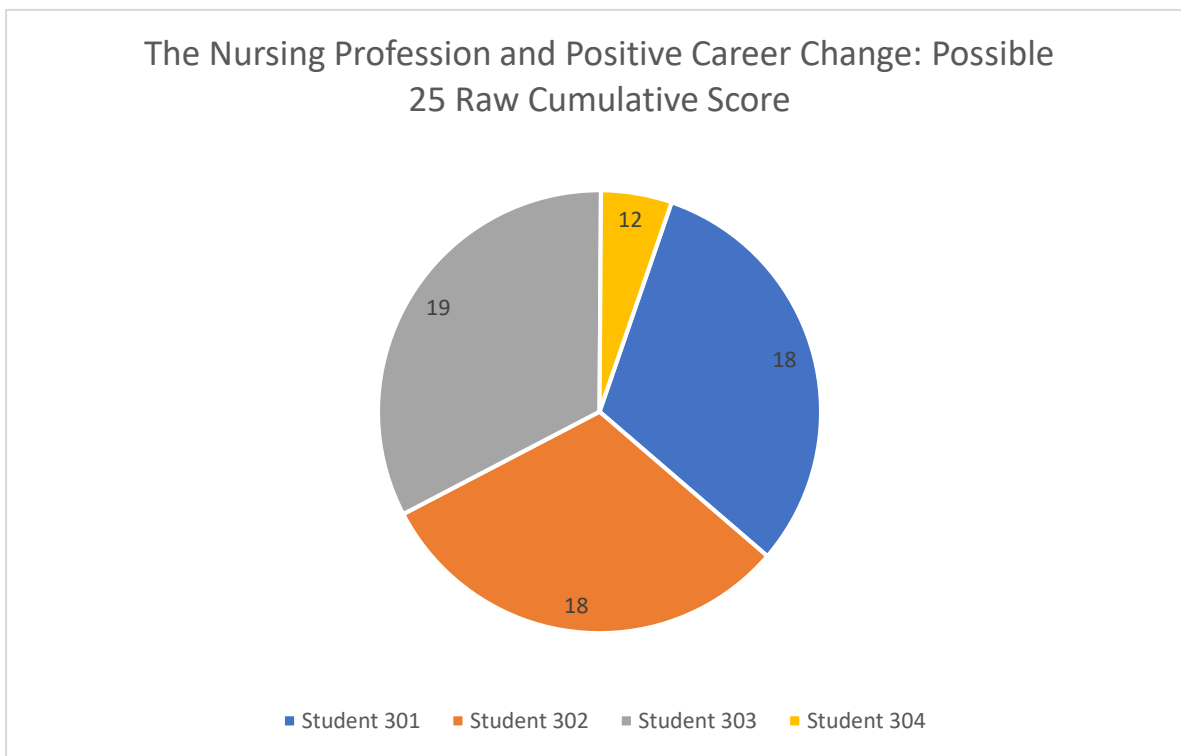
Figure 4. Nursing profession and positive career change.

Table 3

Nursing Profession and Positive Career Change with Percentages

Student	RCS	Percentage
301	18/25	72%
302	18/25	72%
303	19/25	76%
304	12/25	45%

The results below indicate how the students answered the questions relating to knowledge and skills indicators and the impact they may have influencing students' perception for changing career choice and switching to the nursing profession (questions 10, 11, 12, 13) and the possible RCS (20) for these indicators. A positive percentage score is $\geq$ 75% of the total RCS.

Figure 5. Knowledge, skills and career change.

 Table 4

Knowledge, Skills and Career Change with Percentages

Student	RCS	Percentage
301	20/20	100%
302	19/20	95%
303	16/20	80%
304	18/20	90%

The charts and graphs below were developed from the post-questionnaire responses by the high school students. Because the questionnaires were different, the investigator was unable to compare the post-questionnaire to the pre-questionnaire. However, two indicators were observed; there was a perception change of the nursing profession after the NLNIP, and a benefit of training using simulation. The four student's identification remained unchanged as they used the random numbers categorized 301 – 304 to prevent revealing their identities. The post-questionnaire questions and answers are provided below. A positive percentage score is $\geq 75\%$ of the total RCS.

Mark "X" in the correct numeric response to each question   **1 = Strongly Disagree – 2 = Disagree 3 = Neutral – 4 = Agree – 5 = Strongly Agree**

#	QUESTION			1	2	3	4	5		
1	The study training sessions in NLNIP were convenient and informative.			1	2	3	4	5		
2	The classes I learned in the simulation lab were useful.									
3	I was able to use the training and apply the training to the clinical environment.									
4	The Simulation staff and NLNIP faculty were friendly, approachable, and helpful.									
5	It was very beneficial learning the nursing skills alongside the nursing students in the simulation labs.									
6	I was satisfied with my experience at the organizations.									
7	I still feel the same about the nursing profession after completing the program.									
8	NLNIP has changed my perception towards the nursing profession.									
9	My participation in NLNIP had an impact in my decision to change my perception to a positive one towards nursing.									
10	I would recommend nursing as a career to a friend or colleague.									
11	After participating in NLNIP, I am likely to start nursing prerequisites following high school.									
12	I am very likely to share my positive experience of this program with my colleagues.									
13	Overall, I am very satisfied with the program NLNIP.									

Figure 6. Post-questionnaire distributed to student participants in week six of NLNIP.

The following results indicate how the students answered the questions relating to perception change after completing the NLNIP (questions 7, 8, 9, 10, 11, 12, 13) and the possible RCS (35) for these indicators. A positive percentage score is $\geq$ 75% of the total RCS.

Figure 7. Perception change after the NLNIP.
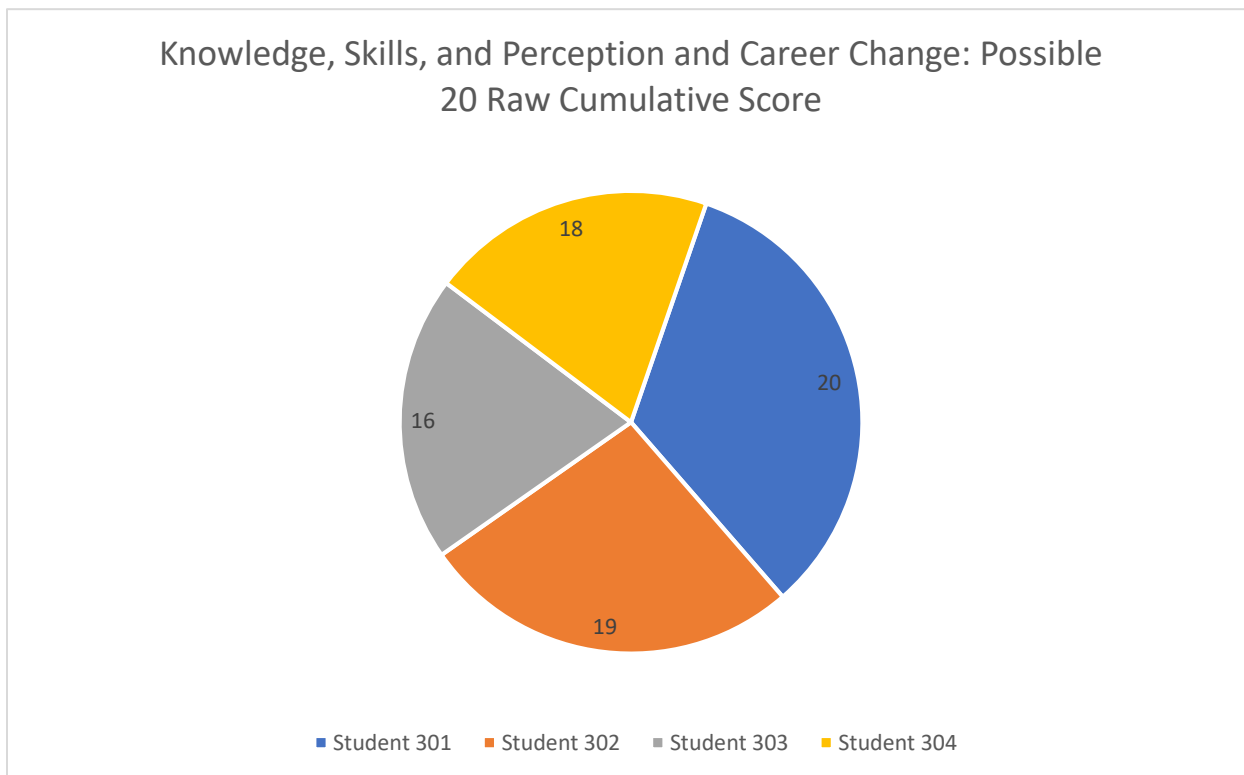
Table 5

Perception Change After the NLNIP with Percentages

Student	RCS	Percentage
301	27/35	77%
302	29/35	83%
303	27/35	77%
304	29/35	83%

The following results indicate how the students answered the questions relating to training and simulation (questions 1, 2, 3, 4, 5) and the possible RCS (25) for these indicators. A positive percentage score is $\geq$ 75% of the total RCS.

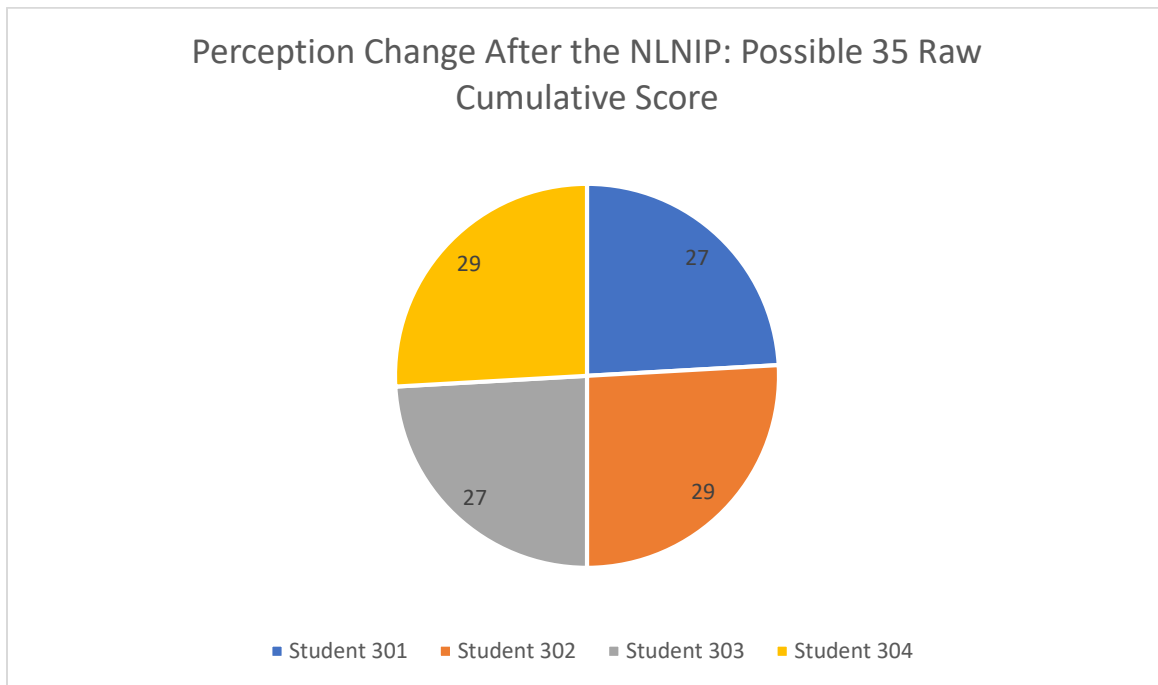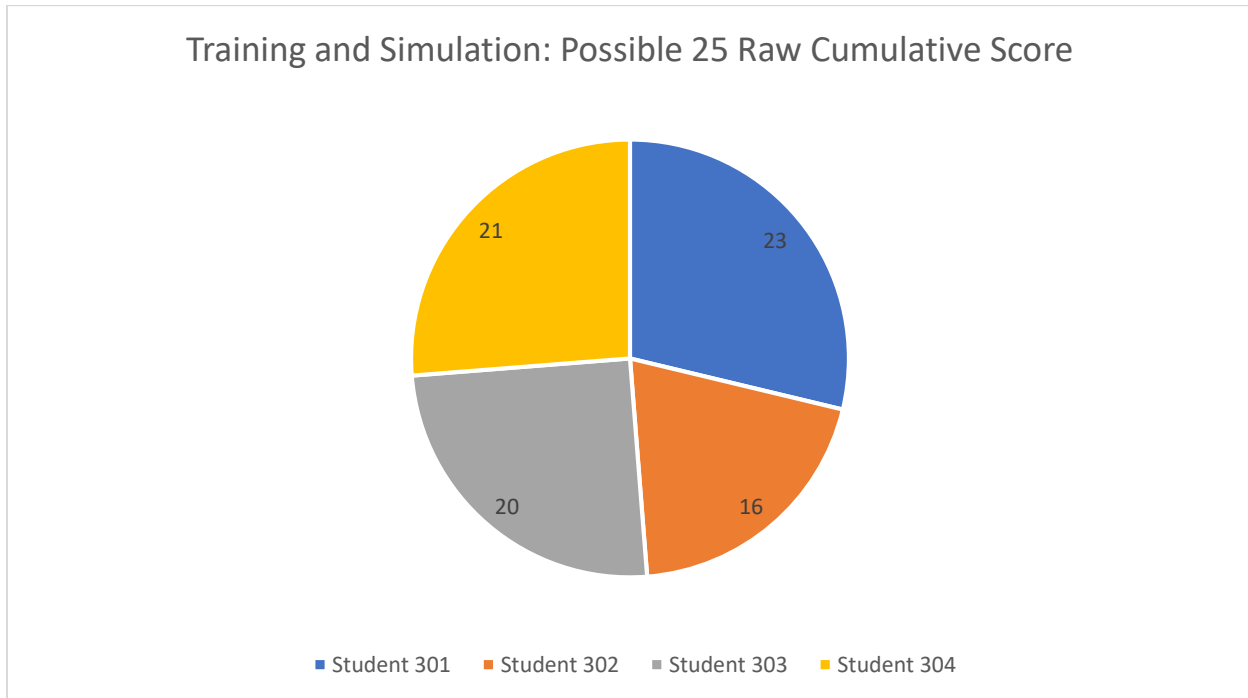*Figure 8*. Training and simulation.

Table 6

Training and Simulation with Percentages

Student	RCS	Percentage
301	23/25	92%
302	16/25	64%
303	20/25	80%
304	21/25	84%

Course Evaluation Tool. The results from the course evaluation responses by the high school students were obtained from seven questions. The four students' identification remained unchanged as they used the random numbers categorized 301 – 304 to prevent revealing their identities. The course evaluation questions are provided below along with an overall summary of the results obtained.

1.	Did you learn what nurses do and what the nursing profession was about? Explain
2.	What information did the course provide you that was important to you regarding the discipline of nursing?
3.	What was the best part of the program to you? What would you change about the program or what could have been done better?
4.	Was the program organized in a manner to promote a conducive learning environment? Why or why not?
5.	Did the faculty answer your questions about nursing? If not, did they get back with you in a timely manner? Explain
6.	Was this program organized? Why or why not?
7.	Were the teaching methods appropriate for the subject material? Explain

Figure 9. Course evaluation tool questions.

An overall summary of the answers to the course evaluation questions provided by the high school students includes the following: Question 1: Three of the students wrote that they felt they learned more about the nurse and what nurses did in the workplace. The fourth student said she understood more about the profession but would like to follow a "real" nurse around to see everything the nurse does in a hospital. Question 2: Two students said it was important to know that nurses were able to "do things without always having to call the doctor." One student wrote down "it was important to know that nurses taught other nurses." The other student stated, "everything is important to know." Question 3: All four students stated being in the simulation labs and the simulation hospital area was the best part of the program. Two students said they would like to change not having a chance to go to the hospital instead of only getting a chance to work in the simulated hospital. The other two students did not comment on what could have

been better or would like to change. Question 4: One student stated the program was organized but could have had a more colorful schedule. The other three students said the program was organized and that the faculty provided a calendar outlining the events for each week. All four students stated the environment was conducive for learning. All students contributed it to the "hands on simulation." Question 5: One student stated faculty was friendly and knowledgeable and answered all questions asked. Another student said the faculty didn't know the answer to a question but found out the answer and informed the class during the next class. A third student stated the faculty answered her questions. The fourth student did not answer the question. Question 6: All students stated the course was organized. No student made a comment stating why they felt the course was organized. Question 7: Three students stated the methods were appropriate for the subject material. The fourth student stated, "I'm not sure. It must be okay because it's a good class."

Chapter V: Discussion

Findings

The purpose of this descriptive study was to investigate the question: In high school seniors, how does a non-licensure nursing internship program, compared to no program, affect perceptions of nursing and recruitment into the nursing profession, during the senior year of high school? As high school students are presented with opportunities to make a choice to pursue nursing, there should be several safe guards in place, especially, if we are seeking to recruit them into the clinical areas. Providing programs, such as the NLNIP, will help prepare students to practice basic nursing skills in a safe controlled environment. Teaching concepts, theory, and implementing guidelines relating to such skills as infection control and hand hygiene can prevent

injuries, infections, and save lives (Banach et al.., 2015; Kay et al., 2014; Potts & Gaulrapp, 2013; Yanke et al., 2015).

While the students' responses were not able to be matched between the pre-and-post questionnaires, the results indicate effectiveness of the NLNIP; however, work is needed in some areas. Positive changes were noted in students' attitudes and perceptions towards nursing. The questionnaires revealed a need to bring more awareness to the community regarding the nursing profession. This was indicated by two students when they answered the following question: "Nurses have a great reputation in the community." Two students rated this question as "3 – Neutral" and the other two rated it as "4 – Agree and 5 – Strongly Agree."

The rating scale used was a 5 point Likert scale (1-5: strongly disagree to strongly agree) covering five indicators. Depending on the student's selection, each question on the questionnaires had the potential of earning five points based upon the Likert scale. To show significance, the five potential points were converted to equal five raw cumulative points per question. Students' scores varied in each category per question. For example, in Figure 2: Perceptions and Attitudes Toward the Nursing Profession, there were four questions that related to this subject (questions 4, 5, 13, 14). The value for each question is five. So, a potential RCS of 20 could be achieved if all the questions were given a "5" by the students. A positive raw cumulative score would be $\geq$ 75%. In this case, if the student received a RCS of 20, they would obtain a percentage rate of 100%. The following are actual student scores for the above-mentioned figure: Student 301 received a RCS of 19/20 which converts to 95%; student 302 received a RCS of 16/20 which converts to 80%; student 303 received a RCS of 15/20 which converts to 75%; and student 304 received a RCS of 11/20 which converts to 55%. This formula can be used for all the charts/graphs to perform the statistics for each figure. The results reveal

the overall RCS associated with these indicators is 76% of the total RCS (see Figure 2). This is a

positive score and represents the students scored favorably regarding perception and attitudes.

The project was successful in this area and the project objectives were met.

The findings suggest that the NLNIP is an effective tool used to increase students'

attitudes and perceptions as they learn nursing skills. The NLNIP encourages the student to

apply theory to practice, make good clinical judgments, improve decision-making abilities, and

better communication skills between the student and the patients (mannequins) to provide safe

patient care. However, the NLNIP also revealed there is a strong need for nurses to inform the

community who we are and what we do. As indicated from Figure 3: Nursing image and

community reputation, students' RCS ranged from 1-11 or 7% to 73%. A complete breakdown

of this figure includes the following: There were three questions related to the subject (questions

7, 8, 9). Student 301 received a RCS of 11/15 or 73%; student 302 received a RCS of 10/15 or

67%; student 303 received a RCS of 10/15 or 67%; and student 304 received a RCS of 1/15 or

7%. The overall RCS associated with these indicators is 53% of the total RCS. This is a

negative score and represents the students did not score favorably regarding nursing image and

community reputation. The project was not successful with these indicators nor were the project

objectives met. Therefore, this area revealed a need to explore ways for improving the image

and reputation of the nursing profession in the community and should be a high priority. The

NLNIP program could certainly help improve the nursing image and reputation in the

community by implementing future programs and exposing the community to the nursing

profession.

Regarding nursing profession and positive career change (see Figure 4), there are five

questions related to this subject (questions 1, 2, 3, 6, 15). The student can achieve up to a 25

possible RCS associated with the indicators. A positive percentage score is $\geq$ 75% of the total

RCS. Student 301 received a RCS of 18/25 or 72%; student 302 received a RCS of 18/25 or

72%; student 303 received a RCS of 19/25 or 76%; and student 304 received a RCS of 12/25 or

48%. Although most of the scores are borderline of being positive, the students' perceptions

relating to the nursing profession were improving. In fact, two of the students stated they would

pursue nursing as a career. Unfortunately, the overall RCS associated with these indicators is

67% of the total RCS. The score represents a negative score indicating the students did not score

favorably regarding the nursing profession and a positive career change. The project was not

successful with these indicators. Therefore, the project objectives were not met. This is an area

that shows there is still room for improvement. As nurses we must get the word out about our

profession. The NLNIP can be a recruitment tool for that purpose.

Concerning knowledge, skills and career change (see Figure 5), there are very positive

RCS and percentages. There were four questions related to the subject (questions 10, 11, 12, 13).

The student can achieve up to 25 possible RCS associated with the indicators. A positive

percentage score is $\geq$ 75% of the total RCS. A complete breakdown of this figure includes the

following: Student 301 received a RCS of 20/20 or 100%; student 302 received a RCS of 19/20

or 95%; student 303 received a RCS of 15/20 or 80%; student 304 received a RCS of 18/20 or

90%. The overall RCS associated with these indicators is 91% of the total RCS. This is a

positive score and represents the students scored favorably regarding knowledge, skills, and

career change. The project was highly successful with these indicators and the project objectives

were met. The scores imply the more knowledge the students have about nursing, the less

misconceptions they have about the nursing profession.

Regarding perception change after the NLNIP (see Figure 7), the questions were

designed to look for any differences in the way the high school students viewed the nursing

profession after completing the NLNIP. There were seven questions that addressed this subject

(questions 7, 8, 9, 10, 11, 12, 13) and a possible RCS (35) for these indicators. A positive

percentage score is $\geq$ 75% of the total RCS. Student 301 received a RCS of 27/35 or 77%;

student 302 received a RCS of 29/35 or 83%; student 303 received a RCS of 27/35 or 77%; and

student 304 received a RCS of 29/35 or 83%. As noted, the students gave positive scores to

these indicators of greater than 75% after participating in the NLNIP. The overall RCS

associated with these indicators is 80% of the total RCS. This is a positive score and represents

the students scored favorably regarding perception change after the NLNIP. The project was

successful with these indicators. The students' scores indicated that the project's objectives were

met. For example, objective one looked to assess a change in perception of the nursing students

that participated in the NLNIP. Although the questionnaires were different, a change was noted

from the results between the pre-questionnaire (questions 4, 8, 9) and a question from the post-

questionnaire (question 11). Question 4 of the pre-questionnaire asked the students if they had a

positive perception of the nursing profession. All four students received a RCS of 5/5 or 100%.

A change was noted when analyzing question 4 from the pre-questionnaire and comparing the

students' responses to question 8 and question 9 from the post-questionnaire. The results from

question 8 revealed three of the students received a RCS of 4/5 or 80%; only one student

received a RCS of 3/5 or 60% after participating in the NLNIP; indicating a change from pre-

questionnaire question 4. Question 9 of the post-questionnaire asked the students if the NLNIP

had an impact of their decision to change their perception to a positive one towards nursing. The

results revealed only one student received a RCS of 4/5 or 80%. The other three students

received RCS as low as 1/5 or 20% to 3/5 or 60%. The scores for this question were lower than expected for these indicators and reveals a change from pre-questionnaire question 4.

The second project objective looked at measuring the effectiveness of the NLNIP for recruiting high school students into the nursing profession. Question 11 of the post-questionnaire asked the students if after participating in the NLNIP they were likely to start nursing prerequisites following high school. The results revealed all four students received a RCS of 5/5 or 100% for these indicators. The scores imply that the second project objective was met. However, more research is needed to investigate why there was a difference between pre-questionnaire results and post-questionnaire results for similar indicators.

Simulation was used as a strategy to determine the impact and effectiveness for learning basic nursing skills. The training and simulation indicators were developed to determine if students trained in simulation environments would become more knowledgeable of the nursing profession. The data results from the training and simulation indicators (see Figure 8) reveals there are five questions related to the subject (questions 1, 2, 3, 4, 5) and the possible RCS (25) for these indicators. A positive percentage score is $\geq$ 75% of the total RCS. The following are actual student scores for the above-mentioned figure: Student 301 received a RCS of 23/25 or 92%; student 302 received a RCS of 16/25 or 64%; student 303 received a RCS of 20/25 or 80%; and student 304 received a RCS of 21/25 or 84%. The overall RCS associated with these indicators is 80% of the total RCS. This is a positive score and represents the students scored favorably regarding training and simulation. The project was successful with these indicators and the project objectives were met. The students attended the simulation labs and simulation hospital and demonstrated good scores performing their skills; however, one student indicated they did not like being in the simulation labs but wanted to train at a hospital and follow real

nurses. This is a concern that will be addressed before future programs are implemented. By presenting the students' concern to hospital administration and to policy and procedure committees may bring about change allowing the students a hospital rotation versus only simulation rotations. However, the scores imply students training in simulation environments have better understanding and knowledge about the nursing profession and more open to considering nursing as a career.

Limitations or Deviations from Project Plan

The current project had limitations that could have affected the data. Some limitations that were discovered about the NLNIP included a small sample size of four, lack of diversity in gender - participants were all female high school students: one Caucasian, one student from India, and two African Americans made up the sample size. The pre-and-post-questionnaires could have had more direct and identical questions making it possible for further statistical analyses of the data. When the high school students filled out the pre-questionnaire, they were in a lab (towards the back of the room) with nursing students. One student voiced concern that the GSON students could walk to the back of the lab and see the answers the high school students had written on the questionnaire. Because of this, students may not have responded as they wanted for fear of being exposed. The class was late starting 10-15 minutes for three consecutive weeks due to three of the four students arriving late (car pool). Preparation in the use of simulation and developing scenarios for the NLNIP takes time, and the limitation of using one faculty member for this function is not an effective way to manage program time. Finally, the recruitment of the simulation staff could be more productive and beneficial if the simulation staff can provide continued simulation education that will be needed for the recruitment of adjunct faculty and full-time faculty for future NLNIP programs.

Implications

Recruitment of high school students into the nursing profession and changing their perceptions can help fill positions of the nurse shortage (Torpey, 2015). Torpey (2015) states improving the nursing shortage will help improve patient outcomes. Patient outcomes are defined in terms of the attributes that nursing care is provided to patients and their experiences in the clinical/hospital areas, including maintenance of patient functional status, maintenance of patient safety, and patient perception of satisfaction. The evidence in this paper can help provide high school students a more fundamental perspective, that focuses on perception, change, and a positive image of the nursing profession. The benefits of providing high school students a non-licensure nursing internship program, is to gain insight into the discipline of nursing, and create a change of perception environment while learning concepts and skills focusing on patient safety. The NLNIP is an evidenced-based program focusing on patient safety that can have a very prosperous effect for hospitals, and other organizations that employ the nursing profession, by utilizing the program as a recruitment tool for their organization. Barnsteiner (2011) looked at quality and safety education for nurses' (QSEN) competencies and based them around a culture of hospital safety that can be used for the high school students.

Future research and impact on nursing. Recommendations for future research are needed to determine if the NLNIP could be offered to all high school students (freshman, sophomore, juniors, seniors), including those in junior high schools (seventh and eighth graders); future implementation of the program should include using a larger sample size of students from all schools – public and private; a tool should be in place to examine the influence of simulation on student's perception of the discipline of nursing in the NLNIP; and recruitment for more than one professor to teach students in the NLNIP to provide expanded methods of teaching to help

prevent personal biases. It is possible that an abbreviated version of the NLNIP may take place if expanded to younger students; perhaps to a one- or two-day seminar. This may require the assembly of an ICP team involving faculty, community leaders, nursing, and recruiting other disciplines for future ICP teams for future NLNIP programs.

Health policy change. Nurses have a fantastic opportunity to influence healthcare practices. By allocating through policies, of how the nurse will deliver patient care, and develop policies, the nurse can have an impact on the type resources of how care is implemented, and by whom. In the community, it is thought by many that nurses are healthcare leaders who are advocates for patients and their care, and the communities in which they live. The program NLNIP can be used as a tool for the nursing profession to implement healthcare policy change. This can be done by preparing high school students to learn and use knowledge of nursing history, structure and theory, and understand the ethical and social implications of policy decisions leading to creative and effective advocacy policy change. Policy change is needed to help meet the needs of the community by introducing an educational program to high school students about the nursing profession.

Students in the NLNIP voiced a desire to get a chance to go to a true clinical area in a hospital where they could follow a "real nurse." This would be an opportunity to meet with local clinics and hospital's policy and procedure committees and share the student's desires. Currently, hospital policy prevents the students from experiencing clinicals in an acute setting. Sharing the NLNIP with the committees could have a respectable outcome for future NLNIP programs. Getting the word out to hospitals and schools about the NLNIP could make a huge impact on closing the nursing shortage and increasing nursing schools' admissions by exposing students to the program. This change to policy will help expose

students to the nursing profession at an early age. Providing such an opportunity will attract

high school students to pursue a career in nursing.

One of the goals stated by Robert Wood Johnson Foundation (RWJF, 2015), was to

support programs that enable and promote connections across health care, social service, and

public health systems to meet the needs of individuals and communities. The NLNIP program

can have a very successful impact in the community's meeting this goal. As high school

students participate in hands-on basic nursing skills, they gain firsthand knowledge of what

nurses do and develop positive attitudes and perceptions of the nursing profession, making

them future nurse candidates.

Chapter VI: Conclusion

Value of the Project

The DNP project (NLNIP) is a valuable tool for organizations to use as a recruitment

tool. Exposing high school students to nursing at an early age and providing an opportunity for

high school students to learn about the nursing profession, can have a significant impact on the

nursing shortage (Torpey, 2015). NLNIP can contribute to nursing by providing an opportunity

for students to learn about the nursing profession. Through the Community Nursing Practice

Model (CNPM), high school students were recruited for the NLNIP to participate in the project,

in anticipation of attracting students to consider a nursing career. NLNIP provided concepts and

basic hands-on skills that students learned to help gain knowledge regarding the nursing

profession. Students found the hands-on nursing skills to be valuable and voiced positive change

of perceptions toward the nursing profession.

DNP Essentials for Project

Essential I: Scientific underpinnings for practice.   *Essential I* is focused on the patterning of human behavior in interaction within the environment and the nursing actions or processes by which positive changes in health status are affected (AACN, 2006). *Essential I* was met for the project by having knowledge of nursing science and creating a significant body of data used for developing and implementing the program NLNIP. To meet this *Essential* in the simulation lab, new practice approach scenarios based on nursing theories were developed to provide real-life situations for the students.

Essential II: Organizational and systems leadership for quality improvement and systems thinking. *Essential II* is crucial for the success of the DNP project. The *DNP Essential II* informs the DNP student that accountability for behaviors required to establish team building and decision making is a must (AACN, 2006). This *Essential* was met in multiple ways. First, by being enthusiastic about the NLNIP, the investigator helped display behaviors required to motivate others' excitement about the project; secondly, the *Essential* was met by displaying effective communication skills. These skills were used to define the project's goals, objectives, and/or clarify steps of the implementation process (Moran et al., 2017). Third, by taking a leadership role to present strategies of how the NLNIP would benefit the organization was received in a positive manner. The stakeholders were informed the NLNIP was implemented based on scientific findings and evidenced-based practice. Finally, taking responsibility for teaching high school students to serve and provide safe patient care is the duty of the DNP project leader. According to Moran et al. (2017, p. 331), "The project leader must have an understanding of his or her skill set as a leader and the behaviors that correspond to project implementation factors."

Essential III: Clinical scholarship and analytical methods for evidence-based

practice. Per the American Association of Colleges of Nursing (AACN, 2006), *Essential III*

describes the DNP graduates participating in advanced nursing practice and provide leadership

for evidence-based practice (EBP). The *Essential* also requires competence in knowledge

application activities (AACN, 2006). *Essential III* was met for the project by being prepared to

perform as a leader while guiding the high school students who were participating in the DNP

project. Teaching high school students EBP concepts and skills towards the preparation for the

clinical experience, providing safe care to the patients, and implementing the best evidence for

practice were other ways for meeting this *Essential*.

Essential IV: Information systems/technology and patient care technology for the

improvement and transformation of health care. The investigator was prepared to design,

select, use, and evaluate programs that evaluate and monitor outcomes of care and quality

improvement of health care information systems (AACN, 2006).   *Essential IV* instructs DNP

graduates to be proficient in the use of technology resources, such as tools used to implement

quality improvement initiatives and support decision-making practice. Making sure the

technology is appropriate and evaluated in an accurate and timely manner is important to

recognize before developing or executing an evaluation plan involving data collection from

practice information systems and databases (AACN, 2006). *Essential IV* was met for the project

by entering student data information in a password secure computer and retrieved when needed;

all data was kept confident and secure. The *Essential* was also met by providing simulation

throughout the seven weeks of the NLNIP. This included simulation scenarios, skills, and

educating the students on how to perform in the simulation labs and the simulation hospital using

mannequin patients.

Essential V: Health care policy for advocacy in health care. *Essential V* prepares the

DNP graduate to assume a broad leadership role on behalf of the public as well as the nursing

profession (AACN, 2006). Therefore, advocating for the nursing profession within the policy

and healthcare communities is crucial to educate others, including policy makers at all levels,

regarding nursing, health policy, and patient care outcomes (AACN, 2006). Implementing the

NLNIP could help influence policy makers to improve health care delivery and outcomes by

providing a program for high school students who may be looked upon by policy makers as

becoming future nurses, thereby decreasing the gap of the nursing shortage. This *Essential* has

provided knowledge needed to present the NLNIP to the BJC hospitals' Policy & Procedure

Committees and explain the desires of the high school students to see what "real" nurses do by

allowing the hospital clinical portion of the NLNIP to be held at one of the BJC hospitals versus

being held at GSON's simulation hospital.

Essential VI: Interprofessional collaboration for improving patient and population

health outcomes. *Essential VI* prepares the DNP graduate to employ effective communication,

practice collaborative skills, and lead interprofessional teams to create change in health care and

complex healthcare delivery systems (AACN, 2006). The *Essential* was met for the project by

using the knowledge learned from this essential to take on the team leadership role in

establishing an interprofessional team for the project (AACN, 2006). *Essential VI* was also met

by demonstrating proper use of high-fidelity mannequins and technology to the students in the

simulation labs and simulation hospital. This called for effective communication skills to

evaluate health care information that was based on patient care scenarios.

Essential VII: Clinical prevention and population health for improving the nation's

health. The AACN (2006), says the DNP program prepares the graduate to analyze

epidemiological, biostatistical, environmental, and other appropriate scientific data related to individual, aggregate, and population health. This *Essential* was met in the NLNIP by teaching basic concepts related to cultural diversity to the high school students. It was also met by teaching the students how to protect themselves and patients by learning and practicing infection control guidelines from the World Health Organization (WHO, 2016) and Centers for Disease Control and Prevention (CDC, 2017). Implementing these best practice guidelines were successful as the students were able to reach mastery for skills such as hand hygiene, infection control, and personal protective equipment.

Essential VIII: Advanced nursing practice. *Essential VIII* specifies the foundational practice competencies that cut across specialties and are requisite for DNP practice (AACN, 2006). All DNP graduates are expected to demonstrate advanced assessment skills and base practice on the application of biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, and nursing science as appropriate in their area of specialization (AACN, 2006). The *Essential* was met for the project by demonstrating clinical judgment and taking responsibility in designing and evaluating an evidence-based program, known as the NLNIP. Knowledge learned from *Essential VIII* was used in the project to teach high school students basic nursing skills in an advanced way.

Plan for Dissemination

The next step for the project is to put the right Intercollaborative Professional Plan (ICP) together then select a team to help disseminate the program. Putting together the right ICP team for the NLNIP, will provide the students a powerful opportunity to experience insight into what nursing is all about; who they are; and what factors are involved to keep our patients safe. Recruitment of high school students into the nursing profession can help close the nurse shortage

openings throughout the nation (Torpey, 2015). Improving the nursing shortage will help

improve patient outcomes. To inform the public about the NLNIP, dissemination for the project

while at Bradley University will include submitting the NLNIP to the DNP Inc., e-Repository

and presenting the final DNP presentation to the public as a PowerPoint presentation. After

achieving the DNP degree from Bradley University, dissemination of the project will consist of

developing a poster to present at local hospitals, starting with those in the BJC Healthcare

system; local nursing schools (first on the agenda is to get acceptance to present to GSON faculty

and staff); clinics and regional conferences; eventually, at the national level. Other forms of

dissemination for the NLNIP includes going to high schools to hold podium presentations about

the NLNIP and finally, submit a peer review article for publication, and recruiting other

disciplines besides nursing for future ICP teams for future NLNIP programs.

Attainment of Personal and Professional Goals

Personal and professional goals were explored prior to the start of the DNP project.

Goals began as soon as deciding to pursue the terminal degree and selecting the school to attend.

Once that decision was made, the preparation for the DNP project started almost the first day of

school. Every class mentioned the DNP project, and now it is a reality. This is an extremely key

step for anyone seeking the nursing profession. As the DNP project got underway, the aim for

the project became clearer, to determine the reasons why high school students held negative

perceptions of the nursing profession (Elibol & Seren, 2017). For the nursing profession, when

an individual chooses a profession, they should look at many factors before deciding, such as

profession's image, personal plans, and the prospect of life-long success (Elibol & Seren, 2017).

Achieving the goal of changing high school students' perceptions of the nursing profession by

implementing the NLNIP would be an ultimate achievement.

References

Aebersold, M., & Tschannen, D. (2013). Simulation in nursing practice: The impact on patient

care. *The Online Journal of Issues in Nursing (OJIN), 18*(2, Manuscript 6).

doi: 10.3912/OJIN.Vol18No02Man06

American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for

advanced nursing practice.* Washington, DC: Author.

Austin, Z., & Sutton, J. (2014). Qualitative research: Getting started. PubMed, *67*(6), 436-440.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4275140/

Banach, D. B., Bearman, G. M., Morgan, D. J., & Munoz-Price, L. S. (2015). Infection control

precautions for visitors to healthcare facilities. *Expert Review of Anti-infective Therapy,

13*(9), 1047-1050. doi: 10.1586/14787210.2015.1068119

Barnsteiner, J. (2011). Teaching the culture of safety. *OJIN: Online Journal of Issues in

Nursing. 16*(3). doi: 10.3912/OJIN.Vol16No03Man05

Brown, D., & Cinamon, R. G. (2016). Personality traits' effects on self-efficacy and outcome

expectations for high school major choice. *International Journal for Educational and

Vocational Guidance, 16*(3), 343-361. doi: 10.1007/s10775-015-9316-4

Buykx, P., Kinsman, L., Cooper, T., McConnell Henry, T., Cant, R., Endacott, R. & Scholes, J.

(2011). FIRST2ACT: Educating nurses to identify patient deterioration - a theory based

model for best practice simulation education. *Nurse Education Today, 7*(31), 687-693.

doi: 10.1016/j.nedt.2011.03.006

Center for Disease and Prevention Control (2017). *When & how to wash your hands.*

Retrieved from https://www.cdc.gov/handwashing/when-how-handwashing.html

Collaborative Institutional Training Initiative (CITI, 2017). Research using children. *CITI

Program. Retrieved from https://about.citiprogram.org/en/series/human-subjects-

research-hsr/

Collegiate School of Medicine and Bioscience. (2019). *About the school*. Retrieved from

https://www.slps.org/Page/43076

Eliboli, E., & Seren, A.K. H. (2017). Reasons nursing students choose the nursing profession

and their nursing image perceptions: A survey study. *Nursing Practice Today, 4*(2),

67-78. Available online at http://npt.tums.ac.ir

Goldfarb School of Nursing Barnes-Jewish College (2017). *Official site.* Retrieved from

https://www.barnesjewishcollege.edu/

Hansen, J. (2013). Nurse residency programs: A critical part of the future of nursing, part 2.

*Journal for Nurses in Professional Development, (29)*3, 157-158.

doi: 01709760-201305000-00013

Harris, J. L., Roussel, L., Dearman, C., & Thomas, P. L. (2016*). Project planning

and management: A guide for nurses and interprofessional teams* (2nd ed.). Burlington,

MA: Jones & Bartlett Learning.

Kalisch, B. J., & Lee, K. H. (2011). Nurse staffing levels and teamwork: A cross-sectional study

of patient care units in acute care hospitals. *Journal of Nursing Scholarship, 43*(1), 82-88.

doi: 10.1111/j.1547.5069.2010.01375.x

Kay, Y. L., Avant, C., Aungsuroch, Y., Zhand, X., & Jiang, P. (2014). Patient outcomes in the

field of nursing: A concept analysis. *International Journal of Nursing Sciences, 1*(1), 69-

74. doi: org/10.1016/j.ijnss.2014.02.006

Kusmaul, N., & Waldrop, D. P. (2015). Certified nursing assistants as frontline caregivers in

nursing homes: Does trauma influence caregiving abilities? *American Psychological*

Association Traumatology, 21(3), 251-258. doi: org/10.1037/trm0000041

Melnyk, B. M., Fineout-Overhold, E., Giggleman, M., & Choy, K. (2017). A Test of the

   ARCC© model improves implementation of evidence-based practice, healthcare culture,

   and patient outcomes. *Worldviews Evidence Based Nursing, 14*(1), 5-9.

   doi: 10.1111/wvn.12188.

Minority Nurse Staff. (2013). *The nursing shortage: Exploring the situation and solutions.*

   Retrieved from https://minoritynurse.com/the-nursing-shortage-exploring-the-situation-

   and-solutions/

Moran, K., Burson, R., & Conrad, D. (2017). *The doctor of nursing practice scholarly project:*

   A framework for success. (2nd ed.). Jones & Bartlett Learning, Burlington, MA

Moss, E., Seifert, C.P., O'Sullivan, A. (2016). Registered nurses as interprofessional

   collaborative partners: Creating value-based outcomes. *The Online Journal of*

   Issues in Nursing, 3(21), 4. doi: 10.3912/OJIN.Vol21No03Man04

Myers, L. H. (2013). Partnering to provide a summer institute of nursing. *Journal of Nursing*

   Education, 52(12). doi:10.3928/01484834-20131121-02

Parker, M. E., Barry, C. D., & King, B. M. (2015). *The Community Nursing Practice Model*

   (pp.435). In Smith, M. C., & Parker, M. E., *Nursing theories & nursing*

   *practice, (*4th ed.*).* Philadelphia, PA: FA Davis.

Potts, A., & Gaulrapp, A. (2013). High school student's perception of nursing. *IOSR:*

   International Organization of Scientific Research, 6(5),459-463. Retrieved from

   http://www.ncurproceedings.org/ojs/index.php/NCUR2013/article/view/362

Rhodes, M. K., Morris, A. H., & Browder-Lazenby, R. (2011). Nursing at its best: Competent

   and caring. *Online Journal of Issues in Nursing, 16*(2).

doi: 10.3912/OJIN.Vol16No02PPT01

Robert Wood Johnson Foundation (2015). *Nurses take on new and expanded roles in health*

care: Health systems. Retrieved from https://www.rwjf.org/en/library/articles-

and-news/2015/01/nurses-take-on-new-and-expanded-roles-in-health-care.html

Robles, A. (2015). Data collection for program evaluation. *Corporation for National*

& Community Service [PowerPoint slides]. Retrieved from

https://www.nationalservice.gov/sites/default/files/resource/May_21_Data_

Collection_for_Program_Evaluation.pdf

Torpey, E. (2015). *Career Outlook: Career planning for high schoolers. U.S. Bureau of Labor*

Statistics. Retrieved from https://www.bls.gov/careeroutlook/2015/article/pdf/career-

planning-for-high-schoolers.pdf

U. S. Bureau of Labor Statistics. (2017). *Missouri state occupational employment and wage*

estimates. U. S. Department of Labor. Retrieved from

https://www.bls.gov/oes/current/oes_mo.htm

U. S. Bureau of Labor Statistics. (2016). *Occupational employment and wages: Registered*

Nurses, 29-1141. Retrieved from https://www.bls.gov/oes/current/oes291141.htm#st

United States Department of Labor. (2017). *Employment and training administration.* Retrieved

from https://www.doleta.gov/

Wilkes, L., Cowin, L., & Johnson, M. (2014). The reasons students choose to undertake a

nursing degree. *Collegian, 22*(1), 259-265. doi:10.1016/j.colegn.2014.01.003

Williamson, E. (2016). *Nurses rank # 1 once again in Gallup poll for ethics and honesty.*

Retrieved from https://www.nurse.com/blog/2016/12/21/nurses-rank-1-once-again-in-

gallup-poll-for-ethics-and-honesty/

Wisdom, J. P., Cavaleri, M. A., Onwuegbuzie, A. J., & Green, C. A. (2011). Methodological

    reporting in qualitative, quantitative, and mixed methods. *Health Services Research,*

    47(2), 721-745. doi: 10.1111/j.1475-6773.2011.01344.x

World Health Organization. (2016). *Guidelines on core components of infection prevention and*

    control programs at the national and acute health care facility level: Clean care is safer

    care. Retrieved from

    https://apps.who.int/iris/bitstream/handle/10665/251730/9789241549929-

    jeng.pdf;sequence=1

Yanke, E., Zellmer, C., Van Hoof, S., Moriarty, H., Carayon, P., Safdar, N. (2015).

    Understanding the current state of infection prevention to prevent clostridium

    difficile infection: A human factors and systems engineering approach. *American*

    Journal of Infection Control, 43(3), 241-247. doi: 10.1016/j.ajic.2014.11.026

Appendix A
Assent Form for Minors Participating in NLNIP

ASSENT CONSENT DOCUMENT: HIGH SCHOOL STUDENTS FOR NLNIP

Title of Study: Non-Licensure Nursing Internship Program (NLNIP) for Recruiting High School Students into Nursing

Name of Researcher/Primary Investigator (PI): Janet Holbrook, MSN, RN, FBN/FPN.

Doctor of Nursing Practice Student at Bradley University, Peoria, Illinois.

Questions about this study may be directed to researcher Janet Holbrook in charge of this study at 314-454-8295 or 314-603-6432, email jholbrook@mail.bradley.edu or the research advisor: Dr. Karin Smith at (309) 677- 4588 or kbsmith@fsmail.bradley.edu. If you have general questions about being a research participant, you may contact the CUHSR office at (309) 677-3877).

This assent form describes the research study and helps you decide if you want to participate. It provides essential information about what you will be asked to do during the study, about the risks and benefits of the study, and about your rights and responsibilities as a research participant. We want you to sign this form, if you are agreeing to participate in this study. You will be given a copy of the full Informed Assent Form.

- You should read and understand the information in this document including the procedures, risks and potential benefits.
- If you have questions about anything in this form, you should ask the research team for more information before you agree to participate.
- You may also wish to talk to your parents, family or friends about your participation in this study.
- We have discussed this research study with your parent(s)/guardian, and they know that we are also asking you for your agreement. If you are going to participate in the research, your parent(s)/guardian also must agree. But if you do not wish to take part in the study, you do not have to, even if your parents have agreed.
- Do not agree to participate in this study unless the research team has answered your questions and you decide that you want to be part of this study.

WHAT IS THE PURPOSE OF THIS STUDY?

This is a research study. We invite you to participate in this research study because you are a high school student who attends the Collegiate School of Medicine and Bioscience Magnet High School.

The purpose of this research study is to determine your initial attitudes and beliefs about the nursing profession and if the NLNIP changes any misperceptions you have. The internship program will also act as a recruitment tool.

The NLNIP is considered a descriptive study, which means that from your participation in the program, we can obtain useful information to determine if student perceptions and attitude improved or became positive towards the nursing profession.

WHAT WILL HAPPEN DURING THIS STUDY?

- We would like for you to consider participating in this study if you are between the ages of 16-18 and attend the Collegiate School of Medicine and Bioscience Magnet High School.
- Before you receive confirmation to participate in the program, you will be asked to submit a 250-word essay describing what you can offer to the nursing profession and why you should be selected.
- Once selected to participate, you will be invited to attend Goldfarb School Nursing for an interview. Based on your essay and interview, candidates will be offered to participate in the program.
- During the program, you will learn basic evidenced-based practice skills and concepts in simulations labs and healthcare settings, demonstrating what nurses do in the healthcare environment. You will also receive a skills bag with several tools to use when practicing skills in the simulation labs, a uniform to wear to the labs and hospital/clinical environment, and a lab coat.

The following explains what you can expect each week that you are participating in the study:

- **Week one.** During week one, you will learn and perform basic concepts chosen for the program. Materials to be used are handouts of skills, lectures, and discussions. You will also be given a pre-questionnaire to be completed. The methods are pre-questionnaires, concepts, and guidelines taught throughout the day at Goldfarb School of Nursing. The timeline for this class is 5 hr. 45 min. The breakdown for week one includes: Simulation Lab/Theory Concepts: Importance of hand hygiene – 1 hr. 20 min; Universal Precautions –1 hr.; Effective Communication – 40 min; Introduction to Health Care and Nursing Arts – 1 hr.; Body mechanics – 50 min; Diet and nutrition – 35 min; and Ambulatory transfers – 1 hr.

- **Week two.** This week, you will learn and practice hands on basic nursing skills in the simulation labs that will have an impact on how they now view nursing. Program expectation is to see a positive change of perception and attitude in the high school students towards the field of nursing. Materials to be used are skills checklist, scenarios, videos by the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO), discussions, debriefing, handouts of skills. The methods are your observational feedback and interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr. 45 min. The breakdown for week two includes: Simulation Lab: You will be taught the following program skills: Hand hygiene – 1 hr. 15 min; applying Personal Protective Equipment (PPEs) – 2 hr. 30 min; Therapeutic Communication Techniques – 1 hr.; and Answering Phones – 1 hr.

- **Week three.** You **will possess the necessary skills offered in the program including the skill of "caring, culturally responsive communicators" and can participate effectively in a healthcare team under the supervision of faculty/RN, within three weeks of participating in the program. Materials that will be used are** skills checklist, scenarios, videos by CDC/WHO, discussions, debriefing, handouts of skills. The methods are your observational feedback and interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr. 45 min. The breakdown for week three includes: Simulation Lab: You will be taught the following program skills: Range of motion (ROM), positioning, transferring – 1 hr. 30 min; feeding – 1 hr. 30 min; bathing/oral care/dentures – 1 hr. 30 min; and caring – 1 hr. 10 min.

- **Week four.** In week four, the high school students will begin to demonstrate leadership qualities under the supervision of faculty/RN within four weeks of participating in the program. Materials to be used are post-questionnaires, observational student feedback, interventions, leadership traits and styles (changes in knowledge, skills, and attitudes noted). The methods are observational student feedback, interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr. 45 min. The breakdown for week four includes: Simulation Lab: You will be taught the following program skills: Passing Ice – 1 hr. 50 min; Stocking Linen and Supplies – 1 hr. 20 min; Handling Specimens – 1 hr. 10 min; and Hospital Tour and Orientation – 1 hr. 25 min.

- **Week five.** Students this week begin to demonstrate and apply skills learned in the simulation lab. Methods to be used are student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week five includes: Clinical Rotation: Simulation Hospital Area: If appropriate, you will apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present.

- **Week six.** High school students will demonstrate skills learned in the simulation lab with more confidence than previous weeks, while in the hospital setting during week six. You will also be given a post-questionnaire to be completed. The methods are post-questionnaires, student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week six includes: Clinical Rotation: Simulation Hospital Area: If appropriate, you will apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present.

- **Week seven.** In this week, high school students will require minimal supervision as they demonstrate skills learned and practiced in the hospital setting with proficiency. At the end of this class, you will also receive a course evaluation to be completed. Methods to be used are course evaluation, student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week seven includes: Clinical Rotation: Simulation Hospital Area: If appropriate, you will

apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present. At the completion of the study, students will receive a program certificate of completion.

I have checked with the child and they understand the weekly expectations ____(initial)

WHAT WILL HAPPEN DURING THE DATA COLLECTION?

- We would like for you to give permission to use your data collected in this study.

- During the program (7 consecutive weeks), we will collect data that resulted from your participation in the following study tools:

    o **Pre-Questionnaire:** During week one, you will be given a pre-questionnaire to be completed the first day of the program, at Goldfarb School of Nursing (GSON). The pre-questionnaire includes 15 Likert-type questions, with five selections: 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree. The student will mark "X" in a numeric response to each question. The pre-questionnaire will take appropriately 5-10 minutes to complete. We will use the pre-questionnaire to evaluate student attitudes of the profession and determine if there are any misconceptions towards nursing.

    o **Post-Questionnaire:** During week six in the study, you will be given a post-questionnaire to be completed the sixth day of the program, at GSON. The post-questionnaire includes 13 Likert-type questions, with five selections: 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree. You will mark an "X" in a numeric response to each question. The post-questionnaire will take appropriately 5-7 minutes to complete. We will use the post-questionnaire to determine if student perception of the nursing profession remains the same or if student attitude have changed since participating in the NLNIP. To do this, we will compare results you provided from the pre-questionnaire and determine if there are positive changes towards the nursing profession.

    o **Course Evaluation**: During week seven in the study, you will receive a course evaluation to be completed on the seventh day. The course evaluation includes 7 short answer type questions. The course evaluation will take appropriately 10 minutes to complete. The data collected will be used to evaluate the program and find ways to increase the success of the study.

    o **Eligibility to Participate:** You may participate in the study if you meet the requirements for the study, even if you decide you do not want your data used.

HOW MANY PEOPLE WILL PARTICIPATE?

Approximately three to nine people will take part in this study conducted by researchers at Goldfarb School of Nursing (GSON), and a designated clinical area in the Goldfarb Simulation Hospital located within Goldfarb School of Nursing.

HOW LONG WILL I BE IN THIS STUDY?

If you agree to take part in this study, your involvement will last for 7 consecutive weeks.

- Your initial interview may take 30-60 minutes.
- Each day in the program will last approximately one day a week aimed at 6 hr. for 7 consecutive weeks, a total of about 40 hours.
- You will attend one day each week from 8:00 a.m. to 2:00 p.m. The first 4 weeks you will attend class in the simulation labs at Goldfarb School of Nursing.
- The last 3 weeks you will attend hospital rotations at the Goldfarb School of Nursing Simulation Hospital located within the nursing school.

WHAT ARE THE BENEFITS OF THIS STUDY TO PARTICIPANTS?

- The study will (1) build confidence in the students' ability to perform safe and effective care, taught in the classroom and simulation labs; and (2) lifting confidence and knowledge as the high school students work alongside nurses and nursing students, learning first handed the value of a nurse; who nurses are and what nurses do.

I have checked with the child and they understand the benefits _____(initial)

WHAT ARE THE RISKS OF THIS STUDY TO PARTICIPANTS?

- There are no unforeseen risks expected from the research. The participants will have very limited to no exposure to patients in the clinical environment, however, students are taught evidenced-based practice in the labs for clinical environments such as universal protocol, isolation precautions, and hand hygiene. Therefore, risk for participating in this study are at minimal risks.

- One minimal risk of participating in this study is that confidential information about you may be accidentally disclosed (name, age, telephone, etc.). The results of the study will not be associated with your name in any way. If required to keep a copy of this assent consent document, it will be kept separate from the study results. No records are kept that allow your name to be associated with any responses you make in the study or on a survey or study material of the study. We will use our best efforts to keep the information about you secure. Please see the section in this assent consent form titled *"How will you keep my information confidential?"* for more information.

I have checked with the child and they understand the risks _____(initial)

WHAT ARE THE BENEFITS OF THIS STUDY TO OTHERS?

- The research will improve confidence of nursing students. As you learn alongside nursing students, the environment becomes inductive of encouraging interaction between the two groups. This will help the nursing students grow and challenge themselves as you ask questions, testing the ability of the nursing student.

I have checked with the child and they understand the benefits to others _____(initial)

WHAT ARE THE RISKS OF THIS STUDY TO OTHERS?

- There are no unforeseen risks expected from the research to others.

I have checked with the child and they understand the risks to others _____(initial)

WHAT OPTIONS ARE THERE?

- Instead of being in this study, you can choose not to participate.

ARE THERE ANY DISCLOSURE OF APPROPRIATE OR ADVANTAGEOUS ALTERNATIVE PROCEDURES?

- N/A

WILL THIS RESEARCH INVOLVE MORE THAN MINIMAL RISK?

- This study does not involve more than minimal risk for participants and/or others.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

- You will not have any costs for being in this research study. You will be provided a skills bag, uniform, and lab coat as part of the program, at no expense to you, however, you will be responsible for your lunch expenses.

WILL I BE PAID FOR PARTICIPATING?

- You will not be paid for participating in the study.

WHO IS FUNDING THIS STUDY?
Goldfarb School of Nursing Department of Research is funding this research study. This means that no one on the research team will receive a direct payment of increase in salary from Goldfarb for conducting this study.

WHAT IF I AM INJURED AS A RESULT OF THIS STUDY?

The investigator and team members will try to reduce, control, and treat any complications from this research studies. If you feel you are injured because of the study, please contact the investigator at 314-603-6432. If you need to seek medical care for a research-related injury, please notify the investigator as soon as possible.

WILL MY IDENTIFICATION BE KEPT CONFIDENTIAL?

The results of the study will not be associated with student names in any way. If required to keep a copy of this assent consent document, it will be kept separate from the study results. No records are kept that allow student names to be associated with their responses in the study or on a survey or study material of the study.

HOW WILL YOU KEEP MY INFORMATION CONFIDENTIAL?

- We will keep your participation in this research study confidential to the extent permitted by law.   However, it is possible that other people such as those indicated below may become aware of your participation in this study and may inspect and copy records pertaining to this research. Some of these records could contain information that personally, identifies you.

  - Simulation Hospital/Clinical, College/University representatives, to complete hospital/clinical, or college/university responsibilities.

  - Bradley University's Committee on the Use of Human Subjects in Research (i.e., committee that oversees the conduct of research involving human participants) and Human Research Protection Office.

To help protect your confidentiality, we will assign a three-digit code number to the information collected during the study. Confidentiality will be maintained using coded data materials.

- A three-digit number, starting at 301, will be given in a sequence based on the time of enrollment.
- All the information in paper and electronic format will be coded with a three-digit number without your name attached.
- The electronic data collected via password protected computer and only accessible to the investigator and designated study personnel.
- All computer completed study materials will be stored in a locked cabinet at the investigator's project office.

- Only the investigator and designated study personnel will have access to your data. Information that identifies you personally will not be released without your written permission.
- If we write a report or article about this study or share the study data set with others, we will do so in such a way that you cannot be directly identified.

ARE THERE ADDITIONAL PROTECTIONS FOR MY INFORMATION?

- There are no additional protections required for your information.

IF YOU DECIDE NOT TO SIGN THIS FORM, IT WILL NOT AFFECT:

- Any benefit you may be entitled for inquiring about the study.

IF YOU REVOKE YOUR AUTHORIZATION:

- The research team may only use and share information already collected for the study.
- You will not be allowed to continue to participate in the study.

WHAT IF I HAVE QUESTIONS?

You are encouraged to ask questions at any time during this study. For further information about the study, please contact Jan Holbrook, Assistant Professor @ Goldfarb School of Nursing at 314-454-9285 (office) or 314-603-6432 (cell) or jholbrook@mail.bradley.edu If you experience a research-related injury, please contact: Jan Holbrook, 314-603-6432.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the following: Committee on the Use of Human Subjects in Research (CUHSR), Bradley University, 1501 W Bradley Avenue Peoria, IL 61625 (309) 677-3877

CAN I REFUSE TO PARTICIPATE WITHOUT FEAR OF PENALTY?

All students participating in this study are completely voluntary. Students who participates in the study have the right to refuse to participate, at any time, for any reason, and without stipulations or penalty. Students also have the right not to participate in surveys or questionnaires that they do not wish to take part.

IS THIS STUDY VOLUNTARY?

Taking part in this research study is completely voluntary. You may choose not to take part at all. If you decide to be in this study, you may stop participating at any time.

WHAT IF I DECIDE TO WITHDRAW FROM THE STUDY?

You may withdraw by telling the study team you are no longer interested in participating in the study or you may send in a withdrawal letter.

WILL I RECEIVE LATEST INFORMATION ABOUT THE STUDY WHILE PARTICIPATING?

If we obtain any additional information during this study that might affect your willingness to continue participating in the study, we'll promptly provide you with that information.

I have checked with the child and they understand that participation is voluntary __(initial)

CHILD SIGNATURE: (18 years old and under)

I have read this information (or had the information read to me). I have had my questions answered and know that I can ask questions later if I have them. I agree to take part in the research.

If you don't want to be in this study, just say so, and don't sign this form. If you want to be in this study, please sign your name below.

If you sign here, it means you agree to participate in this study.

ONLY IF CHILD ASSENTS:

Print name of child _____

Signature of child: _____

Date:_____

    (Day/month/year)

I have accurately read or witnessed the accurate reading of the assent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given assent freely.

Print name of researcher_____

Signature of researcher_____

Date:_____

    (Day/month/year)

RESEARCHER STATEMENT:

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the child understands that the following will be done:

1. Identity will be kept unidentifiable.

2. Provide accurate answers to student's questions about the study.

3. Let the student know that the study is voluntary, and participation can be withdrawn at

   any time for any reason without penalty.

I confirm that the child was given an opportunity to ask questions about the study, and all the questions asked by him/her have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this assent form has been provided to the participant.

Print Name of Researcher/Person Taking the Assent: _____

Signature of Researcher /Person Taking the Assent: _____

Date: _____
      (Day/month/year)

Copy provided to the participant _____ (initialed by researcher/assistant)

Parent/Guardian has signed an informed consent ___Yes   ___No ___

(initialed by researcher/assistant)

Appendix B
Informed Consent

INFORMED CONSENT DOCUMENT

Study Title: Non-Licensure Nursing Internship Program to Recruit High School Students in Nursing

Name of Researcher/Primary Investigator (PI): Janet Holbrook, MSN, RN, FBN/FPN
Doctor of Nursing Practice Student at Bradley University, Peoria, Illinois.

Questions about this study may be directed to researcher Janet Holbrook in charge of this study at 314-454-8295 or 314-603-6432, email jholbrook@mail.bradley.edu or the research advisor: Dr. Karin Smith at (309) 677- 4588 or kbsmith@fsmail.bradley.edu. If you have general questions about being a research participant, you may contact the CUHSR office at (309) 677-3877).

This consent form describes the research study and helps you decide if you want your child to participate. It provides essential information about what you and/or your child will be asked to do during the study, about the risks and benefits of the study, and about your child's rights and responsibilities as a research participant. By signing this form, you are agreeing to allow your child to participate in this study.

• You should read and understand the information in this document including the procedures, risks and potential benefits.

• If you have questions about anything in this form, you should ask the research team for more information before you agree to participate.

• You may also wish to talk to your family or friends about your child's participation in this study.

• Do not agree to have your child participate in this study unless the research team has answered your questions and you decide that you want your child to be part of this study.

WHAT IS THE PURPOSE OF THIS STUDY?

This is a research study. We invite your child to participate in this research study because your child is a high school student who attends the Collegiate Medicine and Bioscience Magnet High School.

The purpose of this research study is to determine your child's initial attitudes and beliefs about the nursing profession and if the NLNIP changes any misperceptions they may have. The internship program will also act as a recruitment tool.

The NLNIP is considered a descriptive study, which means that from your child's participation in the program, we can obtain useful information to determine if student perceptions and attitude improved or became positive towards the nursing profession.

WHAT WILL HAPPEN DURING THIS STUDY?

- We would like for your child to consider participating in this study if he/she is between the ages of 16-18 and attend the Collegiate Medicine and Bioscience Magnet High School.

- Before your child receive confirmation to participate in the program, he/she will be asked to submit a 250-word essay describing what they can offer to the nursing profession and why they should be selected.

- Once selected to participate, your child will be invited to attend Goldfarb School Nursing for an interview. Based on essays and interviews, candidates will be offered to participate in the program.

- During the program, your child will learn basic evidenced-based practice skills and concepts in simulation labs and healthcare settings, demonstrating what nurses do in the healthcare environment. Students will receive a skills bag with several tools to use when practicing skills in the simulation labs, a uniform to wear to the labs and hospital, and a lab coat.

The following explains what you can expect each week that your child is participating in the study:

- During week one, your child will learn and perform basic concepts chosen for the program. Materials to be used are handouts of skills, lectures, and discussions. Students will also be given a pre-questionnaire to be completed. The methods are pre-questionnaires, concepts, and guidelines taught throughout the day at Goldfarb School of Nursing. The timeline for this class is 5 hr 45 min. The breakdown for week one includes: Theory Concepts: Importance of hand hygiene – 1 hr 20 min; Universal Precautions –1 hr; Effective Communication – 40 min; Introduction to Health Care and Nursing Arts – 1 hr; Body mechanics – 50 min; Diet and nutrition – 35 min; and Ambulatory transfers – 1 hr.

- Week two, your child will learn and practice hands on basic nursing skills in the simulation labs that will have an impact on how they now view nursing. Program expectation is to see a positive change of perception and attitude in the high school students towards the field of nursing. Materials to be used are skills checklist, scenarios, videos by the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO), discussions, debriefing, handouts of skills. The methods are your child's observational feedback and interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr 45 min. The breakdown for week two

includes: Simulation Lab: Your child will be taught the following program skills: Hand hygiene – 1 hr 15 min; applying Personal Protective Equipment (PPEs) – 2 hr 30 min; Therapeutic Communication Techniques – 1 hr; and Answering Phones – 1 hr.

- Week three, your child will possess the necessary skills offered in the program including the skill of "caring, culturally responsive communicators" and can participate effectively in a healthcare team under the supervision of faculty/RN, within three weeks of participating in the program. Materials that will be used are skills checklist, scenarios, videos by CDC/WHO, discussions, debriefing, handouts of skills. The methods are your child's observational feedback and interventions (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr 45 min. The breakdown for week three includes: Simulation Lab: Your child will be taught the following program skills: Range of motion (ROM), positioning, transferring – 1 hr 30 min; feeding – 1 hr 30 min; bathing/ oral care/dentures – 1 hr 30 min; and caring – 1 hr 10 min.

- In week four, your child will begin to demonstrate leadership qualities under the supervision of faculty/RN within four weeks of participating in the program. The methods and materials to be used are observational student feedback, interventions, leadership traits and styles (changes in knowledge, skills, and attitudes noted). The timeline for this class is 5 hr 45 min. The breakdown for week four includes: Sims Lab: Your child will be taught the following program skills: Passing Ice – 1 hr 50 min; Stocking Linen and Supplies – 1 hr 20 min; Handling Specimens – 1 hr 10 min; and Hospital Tour and Orientation – 1 hr 25 min.

- By week five, your child will begin to demonstrate and apply skills learned in the simulation lab. Methods to be used are student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week five includes: Hospital Rotation: If appropriate, your child will apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present.

- In week six, your child will demonstrate skills learned in the simulation lab with more confidence than previous weeks, while in the hospital setting during week six. Your child will also be given a post-questionnaire to be completed. The methods are post-questionnaires, student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week six includes: Hospital Rotation: If appropriate, your child will apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present.

- Week seven, your child will require minimal supervision as they demonstrate skills learned and practiced in the hospital setting with proficiency. At the end of this class, your child will also receive a course evaluation to be completed. Methods to be used are course evaluation, student's knowledge and comprehension obtained from participating in the NLNIP. The timeline for this class is 6 hr. The breakdown for week seven includes: Hospital Rotation: If appropriate, your child will apply skills learned and practiced in the simulation lab during the clinical rotation, if the opportunities are present.

WHAT WILL HAPPEN DURING THE DATA COLLECTION?

- We would like for you to give permission to use your child's data collected in this study.

- During the program (7 consecutive weeks), we will collect data that resulted from your child participating in the following study tools:

    o **Pre-Questionnaire:** During week one, your child will be given a prequestionnaire to be completed the first day of the program, at Goldfarb School of Nursing (GSON). The pre-questionnaire includes 15 Likert-type questions, with five selections: 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree. The student will mark "X" in the correct numeric response to each question. The pre-questionnaire will take appropriately 5-10 minutes to complete. We will use the pre-questionnaire to evaluate student attitudes of the profession and determine if there are any misconceptions towards nursing.

    o **Post-Questionnaire:** During week six in the study, your child will be given a post-questionnaire to be completed the sixth day of the program, at GSON. The post-questionnaire includes 13 Likert-type questions, with five selections: 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree. The student will mark "X" in the correct numeric response to each question. The post-questionnaire will take appropriately 5-7 minutes to complete. We will use the post-questionnaire to determine if student perception of the nursing profession remains the same or if student attitude have changed since participating in the NLNIP. To do this, we will compare results from the pre-questionnaire and determine if there are positive changes towards the nursing profession.

    o **Course Evaluation:** During week seven in the study, your child will receive a course evaluation to be completed. The course evaluation includes 7 short answer type questions. The data collected will be used to evaluate the program and find ways to increase the success of the study.

    o **Eligibility to Participate:** Your child may participate in the study if they meet the requirements for the study, even if you decide you do not want their data used.

HOW MANY PEOPLE WILL PARTICIPATE?

Approximately three to nine people will take part in this study conducted by investigators at Goldfarb School of Nursing (GSON).

HOW LONG WILL I BE IN THIS STUDY?

If you agree to let your child take part in this study, your child's involvement will last for 7 consecutive weeks.

- Your child's initial interview may take 30-60 minutes.

- Each day in the program will last approximately one day a week aimed at 6 hr for 7 consecutive weeks, a total of about 40 hours.
- Your child will attend one day each week from 8:00 a.m. to 2:00 p.m. The first 4 weeks your child will attend class in the simulation labs at Goldfarb School of Nursing.
- The last 3 weeks your child will attend hospital rotations at Goldfarb Simulation Hospital, located within Goldfarb School of Nursing.

WHAT ARE THE RISKS OF THIS STUDY?

- The participants will have very limited to no exposure to patients in the clinical environment; however, students are taught evidenced-based practice in the labs for clinical environments such as universal protocol, isolation precautions, and hand hygiene. Therefore, risk for participating in this study are at minimal risks.

- There are no unforeseen risks expected from the research to others.

- One risk of participating in this study is that confidential information about your child may be accidentally disclosed (name, age, telephone, etc.). The results of the study will not be associated with your child's name in any way. If required to keep a copy of this informed consent document, it will be kept separate from the study results. No records are kept that allow your child's name to be associated with any responses he/she makes in the study or on a survey or study material of the study. We will use our best efforts to keep the information about your child secure. Please see the section in this consent form titled "How will you keep my child's information confidential?" for more information.

WHAT ARE THE BENEFITS OF THIS STUDY?

- The study will (1) build confidence in the students' ability to perform safe and effective care, taught in the classroom and simulation labs; and (2) lifting confidence and knowledge as the high school students work alongside nurses and nursing students, learning first handed the value of a nurse; who nurses are and what nurses do.

- The research will improve confidence of nursing students. As your child learn alongside nursing students, the environment becomes conductive of encouraging interaction between the two groups. This will help the nursing students grow and challenge themselves as your child ask questions, testing the ability of the nursing student.

WHAT OPTIONS ARE THERE?

Instead of being in this study, you can choose not to allow your child to participate.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

Your child will not have any costs for being in this research study. The skills bag, uniform, and Lab coat is all provided to your child as part of the program. You or your child will, however; be responsible for lunch expenses.

WILL I BE PAID FOR PARTICIPATING?

Your child will not be paid for participating in the study.

WHO IS FUNDING THIS STUDY?

Goldfarb School of Nursing Department of Research is funding this research study. This means that no one on the research team will receive a direct payment of increase in salary from Goldfarb for conducting this study.

WHAT IF MY CHILD IS INJURED AS A RESULT OF THIS STUDY?

The investigator and team members will try to reduce, control, and treat any complications from this research studies. If you feel your child is injured because of the study, please contact the investigator at 314-454-8592. If your child needs to seek medical care for a research-related injury, please notify the Investigator as soon as possible.

HOW WILL YOU KEEP MY CHILD'S INFORMATION CONFIDENTIAL?

We will keep your child's participation in this research study confidential to the extent permitted by law. However, it is possible that other people such as those indicated below may become aware of your child's participation in this study and may inspect and copy records pertaining to this research. Some of these records could contain information that personally identifies your child.

- Hospital, College/University representatives, to complete Hospital, or College/University responsibilities.

- Bradley University's Committee on the Use of Human Subjects in Research (ie., committee that oversees the conduct of research involving human participants) and Human Research Protection Office.

To help protect your child's confidentiality, we will assign a three-digit code number to the information collected during the study. Confidentiality will be maintained using coded data materials.

- A three-digit number, starting at 301, will be given in a sequence based on the time of enrollment.
- All the information in paper and electronic format will be coded with a three-digit number without your child's name attached.
- The electronic data collected via password protected computer and only accessible to the investigator and designated study personnel.
- All computer completed study materials will be stored in a locked cabinet at the PI's project office.

- Only the investigator and designated study personnel will have access to your child's data. Information that identifies your child personally will not be released without your written permission.
- If we write a report or article about this study or share the study data set with others, we will do so in such a way that your child cannot be directly identified.

ARE THERE ADDITIONAL PROTECTIONS FOR YOUR CHILD'S INFORMATION?

- There are no additional protections required for your child's information.

IF YOU DECIDE NOT TO SIGN THIS FORM, IT WILL NOT AFFECT:

- Any benefit your child may be entitled for inquiring about the study.
- However, without your signed permission, it will not be possible for your child to take part in the study.

IF YOU SIGN THIS FORM:

- You authorize the use of your child's information for this research.
- This authorization does not expire.
- You may later change your mind and revoke your child's participation in the study.

IF YOU REVOKE YOUR AUTHORIZATION:

- The research team may only use and share information already collected for the study.
- Your child's information may still be used and shared as necessary to maintain the integrity of the research, for example, to account for a participant's withdrawal from the research study or for safety reasons.
- Your child will not be allowed to continue to participate in the study.

IS BEING IN THIS STUDY VOLUNTARY?

Taking part in this research study is completely voluntary. You may choose not to allow your child to take part at all. If you decide to let your child be in this study, you may you're your child from participating at any time. Any data that was collected as part of your child's participation in the study will remain as part of the study records and cannot be removed.

WHAT IF I DECIDE TO WITHDRAW FROM THE STUDY?

You may withdraw by telling the study team you are no longer interested in your child participating in the study or you may send in a withdrawal letter.

WILL I RECEIVE LATEST INFORMATION ABOUT THE STUDY WHILE MY CHILD IS PARTICIPATING?

If we obtain any additional information during this study that might affect your willingness to allow your child to continue participating in the study, we'll promptly provide you with that information.

WHAT IF I HAVE QUESTIONS?
You are encouraged to ask questions at any time during this study. For further information about the study, please contact Jan Holbrook, Assistant Professor @ Goldfarb School of Nursing at 314-454-9285 (office) or 314-603-6432 (cell) or jholbrook@mail.bradley.edu If your child experiences a research-related injury, please contact: Jan Holbrook, 314-603-6432.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the following: Committee on the Use of Human Subjects in Research (CUHSR), Bradley University, 1501 W Bradley Avenue Peoria, IL 61625 (309) 677-3877.

Your signature indicates that you voluntarily agree to allow your child to be part of the study, that the details of the study have been explained to you and your child, that you have been given time to read this document, and that your questions have been answered. You will be given a copy of this consent form, signed and dated by the researcher, to keep for your records.

Do not sign this form if today's date is after EXPIRATION DATE:

Print name of child: _____

Signature of Parent/Guardian:_____

Date:_____
       (Day/month/year)

STATEMENT OF PERSON WHO OBTAINED CONSENT

I certify that the minor's parent/guardian has been given adequate time to learn about the study and ask questions. It is my opinion that the parent/guardian understands his/her child's rights and the purpose, risks, benefits, and procedures of the research and has voluntarily agreed to allow his/her child to participate. I have also explained the study to the minor in language appropriate to his/her age and have received assent from the minor.

Print Name of Person who Obtained Consent: _____

Signature of Person who Obtained Consent: _____

Date: _____
       (Day/month/year)

Appendix C
Pre-questionnaire

Mark "X" in the correct numeric response to each question   **1 = Strongly Disagree – 2 = Disagree**
3 = Neutral – 4 =Agree – 5 =Strongly Agree

#	QUESTION			1	2	3	4	5		
1	High school prepare students to pursue nursing as a career.									
2	There are brochures about nursing at my high school.									
3	I need more information to consider nursing as a career.									
4	I have a positive perception of the nursing profession.									
5	My parents have high values regarding the nursing profession.									
6	My parents would completely support me if I chose the nursing profession as a career.									
7	Nurses seem to be strong and knowledgeable role models.									
8	Nurses have a great reputation in the community.									
9	Nurses should change their image.									
10	I would attend classes about nursing if given the opportunity.									
11	I can commit to a program to learn more about nursing.									
12	I would like to learn basic nursing skills that will help me understand what nurses do.									
13	Attending nursing classes will help change my perception and attitude towards the nursing profession to a positive one.									
14	I have always wanted to become a nurse.									
15	Following the basic nursing classes, I will consider taking nursing prerequisites then apply to nursing school.			1	2	3	4	5		

Appendix D
Post-questionnaire

Mark "X" in the correct numeric response to each question   1 = Strongly Disagree – 2 = Disagree
3 = Neutral – 4 =Agree – 5 =Strongly Agree

#	QUESTION			1	2	3	4	5		
1	The study training sessions in NLNIP were convenient and informative.			1	2	3	4	5		
2	The classes I learned in the simulation lab were useful.									
3	I was able to use the training and apply the training to the clinical environment.									
4	The Simulation staff and NLNIP faculty were friendly, approachable, and helpful.									
5	It was very beneficial learning the nursing skills alongside the nursing students in the simulation labs.									
6	I was satisfied with my experience at the organizations.									
7	I still feel the same about the nursing profession after completing the program.									
8	NLNIP has changed my perception towards the nursing profession.									
9	My participation in NLNIP had an impact in my decision to change my perception to a positive one towards nursing.									
10	I would recommend nursing as a career to a friend or colleague.									
11	After participating in NLNIP, I am likely to start nursing prerequisites following high school.									
12	I am very likely to share my positive experience of this program with my colleagues.									
13	Overall, I am very satisfied with the program NLNIP.									

Appendix E
Course Evaluation

Course: _____   Instructor Name: _____

Did you learn what nurses do and what the nursing profession was about? Explain

What information did the course provide you that was important to you regarding the discipline of nursing?

What was the best part of the program to you? What would you change about the program or what could have been done better?

Was the program organized in a manner to promote a conducive learning environment? Why or Why not?

Did the faculty answer your questions about nursing? If not, did they get back with you in a timely manner? Explain

Was this program organized? Why or Why not?

Were the teaching methods appropriate for the subject material? Explain

Appendix F
Lesson Plan Schedule

Lesson Plan: Program Objectives and Goals for Students to Meet in a 40-hour Non-Licensure
Nursing Program.

Goal: 75% of students in the program will be able to understand basic concepts and practice
learned skills to demonstrate satisfactory program performance, by April 24, 2019.

At the end of the program the student will be able to:				
Project Objectives for Weeks One to Seven	**Content**	**Time**	**Methods**	**Materials**
(1) Positively change the perception of high school students who believe the nursing profession is not a worthwhile career to pursue by the end of the NLNIP. (2) Measure the effectiveness of the NLNIP for recruiting high school students into the profession of nursing.	**Theory Concepts: Week 1: December 11, 2018** Importance of hand hygiene – 1 hr. 20 mins Universal Precautions – 1 hr. mins Effective Communication – 40 mins Introduction to Health Care and Nursing Arts – 1 hr. Body mechanics – 50 mins Diet and nutrition – 35 mins Ambulatory transfers – 1 hr.	**5 hr. 45 mins**	(1) WHO/CDC guidelines. (2) Communicate accurate, relevant content, key concepts and understandings.	Lecture PowerPoint Discussion Handouts of skills
	Sims Lab: Skills: Week 2: December 18, 2018 Handwashing/hygiene – 1 hr. 15 mins Applying PPEs – 2 hr. 30 mins	**5 hr. 45 mins**	Observational Student Feedback Interventions (Changes in knowledge,	Skills Checklist Scenarios Videos Debriefing Discussion

	Therapeutic Communication Techniques – 1 hr. Answering Phones – 1 hr.		skills, and attitudes noted).	Handouts of skills
	Sims Lab: Skills: Week 3: December 28, 2018 ROM/Positioning/Transferring – 1 hr. 30 mins Feeding – 1 hr. 30 mins Bathing/Oral Care/Dentures – 1 hr. 30 mins Caring – 1 hr. 10 mins	**5 hr. 45 mins**	Observational Student Feedback Interventions (Changes in knowledge, skills, and attitudes noted). Caring	Skills Checklist Scenarios Videos Debriefing Discussion Handouts of skills
	Sims Lab: Skills: Week 4: January 3, 2019 Passing Ice – 1 hr. 50 mins Stocking Linen and Supplies – 1 hr. 20 mins Handling Specimens – 1 hr. 10 mins Hospital Tour and Orientation – 1 hr. 25 mins	**5 hr. 45 mins**	Observational Student Feedback Interventions (Changes in knowledge, skills, and attitudes noted). Leadership Traits and styles	Skills Checklist Scenarios Videos Debriefing Discussion Handouts of skills
	Simulation Hospital Rotation: Week 5: January 10, 2019 All skills learned in the simulation labs will be practiced during the clinical rotation, if opportunity presents itself.	**6 hr.**	NLNIP Clinical site policies.	
	Simulation Hospital Rotation: Week 6: January 17, 2019 All skills learned in the simulation labs will be practiced	**6 hr.**	NLNIP Clinical site policies.	

	during the clinical rotation, if opportunity presents itself.		
	Simulation Hospital Rotation: Week 7: January 24, 2019 All skills learned in the simulation labs will be practiced during the clinical rotation, if opportunity presents itself.	**6 hr.**	NLNIP Clinical site policies.
NOTE: There are 20 minutes left unassigned intentionally to account for late starts and travel times.			

Appendix G
Skills Checklist

SKILLS	Date Satisfactory Performed	Student Name/ Signature	Instructor/RN Supervisor Signature	Strong (ST) Good (G) Satisfaction Achieved (SA) Need Improvement (NI)
Hand Hygiene				
Universal Precautions				
Infection Control				
PPEs				
Bed Making				
Passing Ice				
Passing Water				
Stock linen & supplies				
Answer phones				
Communication				
Standards of Care				

Appendix H
Debriefing Tool

Debriefing/Reflection after a Differentiated Lesson

Soon after implementing a differentiated lesson, it is important for the classroom teacher and specialist to debrief/reflect. Consideration should be given to all the following components as the guiding questions are discussed:

- Assessment: Pre/post
- Student Engagement
- Materials and Resources
- Classroom Management
- Grouping
- Mastery of Indicator/Objective

What went well?	
What didn't work?	
What would you change if you were going to teach this lesson again?	
How will you apply from what you learned from this process in future lesson planning/implementation?	

Appendix I
Certificate of Completion

Appendix J
Program Timeline

10/19/18	10/25/18	11/2/18	11/9/18	11/12/18-11/22/18	11/26/18	12/3/18-12/7/18
Who Visits High School	Process Explained	Introduce NLNIP to Senior Class	Student Essay Submission	Interview Week	Notify Selected Candidates	Signatures for Consents
GSON team or representative will visit Collegiate Medicine & Bioscience High School. Explained the NLNIP process on October 19, 2018.	Met with BJC Student Coordinator regarding site placement for the NLNIP on October 25, 2018.	Introduction of the NLNIP to the senior class during auditorium assembly on November 2, 2018.	Students must submit their essays by November 9, 2018.	Candidates are interviewed . Participants are selected for the NLNIP between November 12, 2018 – November 22, 2018.	Notify selected students for NLNIP and inform parents on November 26, 2018.	Met with students and parents to sign consents during the week of December 3, 2018 – December 7, 2018.

Appendix K
IRB Approval from CUHSR

Dear Investigators:

Your study (CUHSR 47-18) *Non-licensure nursing internship program (NLNIP) to recruit High School students in nursing* has been reviewed and was found to be expeditable under Category 7. You will also need approval from the Washington University IRB.

All vita and ethics certificate are on file.

Be aware that future changes to the protocol must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR promptly (within 3 days).

As this study was reviewed and approved for one year, the maximum allowed under regulations. Please complete a final status report when the study is completed. If the study is not completed within one year, please submit a Continuing Review form before the one year date (September 18, 2019) with adequate time for CUHSR to review to prevent a lapse in approval. These forms can be found on our website, http://www.bradley.edu/academic/cio/osp/policies/cuhsr/forms/

This email will serve as your written notice that the study is approved unless a more formal letter is needed. Just let me know.

Ross L. Fink
Chairperson, CUHSR

Appendix L
IRB Withdrawal Response to Project

Washington University in St.Louis

Human Research Protection Office

Washington University
Barnes Jewish Hospital
St. Louis Children's Hospital

IRB ID #:   201809124

To: Janet Holbrook

From: The Washington University in St. Louis Institutional Review Board,

WUSTL	DHHS Federalwide Assurance #FWA00002284
BJH	DHHS Federalwide Assurance #FWA00002281
SLCH	DHHS Federalwide Assurance #FWA00002282

Re: Non-Licensure Nursing Internship Program to Recruit High School Students in Nursing

---

Human Subjects Research Determination: HSR, not engaged

This was previously submitted as a full application and withdrawn as WU would not take oversight for this study given that it is for the PI's dissertation at Bradley University and not for her role her at BJH. Upon reviewing the NHSR form and based upon prior discussion with the study team, our role is only as a site for her dissertation research. So while the project involves HSR, WU is not engaged in HSR.

This determination has been electronically signed by IRB Chair or Chair Designee:

Erin Higgs, MA

09/20/18 1129

Appendix M
Project Budget

Personnel:

Faculty: The project will require one faculty member to teach the students in the program. This responsibility will be provided by the DNP student, Jan Holbrook. No special salary needed.

Simulation Adjunct: Staff will be needed to set up lab equipment for class simulation/scenarios. Because it is the first time for the program, a small group of three students will be targeted to participate. Simulation is budgeted for $300.00 for the program.

Equipment and Supplies:

The high school students will each need a skills bags that includes the following:

> **Skills Bag = $50/each**
>
> > a. Gait Belt
> > b. Stethoscope
> > c. Blood Pressure Kit/Cuff
> > d. PPEs
>
> **Program Booklet = $75.00**

Uniforms:

Each student will require Goldfarb School of Nursing uniforms that must be worn in the simulation labs and in the clinical areas. The uniforms come as male or female. The cost is very compatible. The price is provided for three females.

> **Tops: (assorted sizes = small, medium, large, x-large, 1X, 2X, 3X)**
> > a. Male = $28
> > b. Female = $25
>
> **Pants: (assorted sizes = small, medium, large, x-large, 1X, 2X, 3X)**
>
> > a. Male = $29
> > b. Female = $28
>
> **Lab Coats: (diverse sizes = small, medium, large, x-large, 1X, 2X, 3X)**
>
> > a. Male = $30
> > b. Female =$30

Lunch Provided for 7 Weeks for three students @ $5/each student X 7 days = $ 105.00

Total Price: $ 1,029.00 to $1,641.00