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Using End of Life Care in a Simulation Scenario in an Effort to Help Increase Student Confidence

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by

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Approval Page

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Abstract

This evidence-based project examined how using the end of life care in a simulation scenario would help in an effort to increase student confidence. A sample size of 28 Practical Nursing Students participated in the simulation scenario. The Confidence Scale (C-scale) developed by Susan Grundy, was administered to the students as a pre-test prior to the simulation and a post-test after the simulation. The C-scale measured student confidence and consisted of five questions asking the students to rate themselves on a scale of one to five in performing a task. The goal was to see if the student's confidence level increased. In conclusion, the statistical analysis and t-test revealed a significant increase in the student's confidence after the end of life simulation scenario. The statistical analysis and t-test did reveal there was a significant increase in the student's confidence after the simulation scenario.

Keywords: end of life care, simulation, practical nursing students, and confidence.

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SECTION I

Problem Recognition

Introduction

Nursing students have not been prepared to care for a dying patient when they enter clinical sites or entry-level practice. It is possible that students have experienced a dying patient on their first clinical day or during their first clinical rotation. As educators it is our responsibility to make sure nursing students are prepared to handle this experience.

According to Jeffries (2007a), the use of simulation permits students to critically think about their skills, actions, and decisions. In the simulation, students were allowed to make mistakes in a controlled environment that would not cause patient harm. In most cases, nursing students could enhance their learning by repeating the simulation scenario to correct their mistakes. Simulation and technology have made it possible to prepare student nurses for practice by developing and creating scenarios that mimic real-life situations. End of life care scenarios in the simulation helped students to develop confidence and relieve anxiety by enacting a patient's death.

Identified Need

According to Smith-Stoner (2009), nursing students have reported hesitancy and feelings of discomfort when they cared for dying patients. Caring for a dying patient is emotionally one of the most difficult aspects of nursing. Students have reported having mixed emotions and feelings while caring for dying patients. These feelings include anxiety, fear, helplessness, sadness, and frustration (Beck, 1997). Students also reported they felt uncomfortable in discussing dying with their patients and families; however,

caring for the dying can be very rewarding. Nursing students typically find it emotionally draining and demanding especially if the student is not prepared to handle the dying patient's needs or family's needs (Strang et al., 2014).

Students are easily influenced by their environment and peers. The current situation, lack of personal and clinical skills, attitudes from other nurses, or the presence of their clinical instructors can also have a direct relationship on how a student perceives death. The literature shows that undergraduate nursing students were not prepared to care for a dying patient and that more end of life care education is needed (Gillian, Jeong, & van der Riet, 2013). This is where simulation can be beneficial in end of life care.

According to Gillan, van der Riet, and Jeong (2016), nurses were at the lead in providing end of life care in practice. It is imperious that nursing students are prepared to care for dying patients and it is considered an honor to provide exceptional care to the patient and provide support to the family during this time. However, research suggest students felt ill prepared in providing this type of care.

Scope of Problem

Incorporating simulation into curriculum can be rigorous. One of the biggest issues most community colleges or universities have faced is the cost. Not just the initial cost of purchasing the equipment, but the maintenance and up keep can be very expensive. Other considerations include making sure there is adequate space for the equipment, having faculty that have specialized training in simulation, scenarios that were needed to continuously be updated with changes, programming of the computer, software updates, and enough faculty on payroll to have low faculty to student ratios (Fabro, Schaffer, & Scharton, 2014). Nurse educators have been trying to push end of

life care that focuses on death, dying, grief, and loss in the curriculum; however, time needs to be designated within the curriculum. This has been shown to have a positive impact in the students learning and perception on end of life care and student learning has flourished.

Due to the limited clinical spaces and availability of sites, student opportunities in regards to patient care have decreased in the clinical setting. Simulation has provided scenarios that mimic real life situations the student can still benefit from. Educators have continued to search for the most effective way to prepare nursing students caring for the dying patient since the 1960's, after the first simulation manikin was introduced by Laderal, the rescue Anne (Beck, 1997). Patient simulators have become even more sophisticated over the years and have offered a wide range of invasive and non-invasive procedures that could also emphasize on the use of collaborative teamwork (Alinier, Hunt, Gordon, & Harwood, 2006).

Setting of the Problem

Any setting where patient care is provided would be considered appropriate. A patient's death can occur in any clinical setting either expected or unexpected. According to Strang et al. (2014) in Sweden it is uncommon for death to occur anywhere besides in the hospital. Nurses would care for dying patients across the life span in all healthcare settings. However, most of the deaths continued to occur in intensive care units, emergency departments, medical surgical units, and long term care facilities (Allchin, 2006). Nursing students had clinical rotations in all of these areas during their educational path of study. They needed to be prepared for clinical rotations within the

emergency department or other medical floors where they could potentially care for a dying patient, allowing them to be able to handle the situation effectively.

Problem Statement

Did a simulation scenario increase student confidence in dealing with end-of-life care? The research has shown nursing students and new graduates were not prepared to handle caring for a dying patient or meeting the needs of the family of the dying patient during that time. There was a large deficit in education surrounding end of life care for nurses. Nurses have been present more than any other healthcare provider during the death of a patient. Therefore, nurses needed to have self-confidence in their skills such as pronouncing at the time of death and communicating difficult conversations with patients and their families. This can be achieved through the use of high quality simulation.

SECTION II

Literature Review

Impact of Ignoring the Problem

Nursing programs across the country have not been able to continue to ignore the issue that nurses were being sent into the work force unprepared to care for the dying. According to the Institute of Medicine (2008), the number of older adults will double by 2030 in the United States (U.S.). A gap in the literature shows research needs to be conducted and designed with measurable outcomes that test pedagogical methods. The use of simulation has helped to positively impact nursing practice and patient related outcomes in end of life care.

Gaps in Practice

Technology has come a long way and simulation has become more realistic than ever. However, even with the most expensive simulators physical limitations still remain. The technology has not allowed the manikins to change skin color to mimic mottling or the change of body temperatures. Advanced programming will be needed to mimic end of life respiratory issues such as the Cheyne Stokes which is an abnormal respiratory pattern where the dying patient will have rapid deep breaths followed by slower and apneic periods (Smith-Stoner, 2009). Apneic periods is where the breathing will stop and can last several seconds to minutes (Smith-Stoner, 2009). This is commonly seen during the end of life (Smith-Stoner, 2009).

Significant Findings

Nursing programs across the country cannot afford to ignore the issue that nurses were being sent into the work force unprepared to care for the dying. According to the

Institute of Medicine (2008), the number of older adults will double by 2030 in the United States (U.S.). Simulation helped bridge the gap between theory and practice (Gillan et al., 2014). Simulation is a pedagogical approach to teaching nursing curricula. It is the hands on experience. There is limited research on simulation published that helps to guide and teach nursing students in end of life care. Research shows there has been a need to establish scientific evidence on the effects of end of life care simulation and nursing students (Gillan et al., 2016). Simulation provided a safe environment for the students to learn. Additionally, it helped to bridge the gap between caring for the dying patient and developing his or her own personal communication skills to use with patients and families during end of life care (Fabro et al., 2014). The research shows an increase in the need to provide more end of life care in the nursing curriculum to nursing students across the country (Smith-Stoner, Hall-Lord, Hedelin, & Petzall, 2011).

Evidence Based Solutions

Simulation offers an alternative learning strategy for students who are unable to have the opportunity to provide end of life care for a dying patient and offer the support needed to the patient's family during clinical rotation (Fabro et al., 2014). According to Kopka, Aschenbrenner, and Reynolds (2016), students reported end of life care simulation as being beneficial in helping to prepare communicating with patients and families as well as providing comfort care to dying patients. Students reported a need in end of life care education however, nursing schools were falling short in meeting this criteria (Allchin, 2006). According to Beck (1997), faculty that address death and dying within the curriculum also need to remind the students that caring for the dying patient and providing support to their families can be a very rewarding and fulfilling job.

Research displays that high fidelity simulation has shown to be effective with nursing students providing competent and high quality end of life care with dying patients.

Literature Findings

According to Hamilton (2010), in 2005 more than 2.4 million deaths occurred in the United States. Nurses have had the exposure of dealing with a dying patient at some point in their career. Patient death occurs across all clinical areas. It is easy to see death as a failure more than a natural part of the life. Student nurses' attitudes can greatly affect the quality of care delivered at the end of life. Student nurses' must be able to have the opportunity to confront their own personal feelings and fears concerning death. It is the job of nurse educators to make sure students have the exposure while they are in nursing school. Students have reported feeling anxious and ill-equipped in caring for patients at the end of life (Hamilton, 2010). Practicing nurses have reported feeling dissatisfied with the end of life care education while in school. The End-of-Life Nursing Consortium (ELNEC) was formed in 2000 to help nursing faculty educate students; however, integration needed to be monitored among all nursing schools (Hamilton, 2010). According to Hamilton (2010), the American Association of Colleges of Nursing (AACN) stated in 2007 more than 19,000 nursing students were being taught the ELNEC curricula. Adding ELNEC content to printed text was a slow process. The ELNEC curriculum consisted of nursing care at the end of life, pain and symptom management, dealing with legal and ethical issues, dealing with grief, loss, and communication. End of life care caused stress in most cases for students. High fidelity simulation can help to enhance learning and provide quality patient care. Simulation helped to increase self-confidence, decrease stress, and provide a safe low risk learning environment.

Simulation scenarios were developed and slightly altered for each level of nursing student to focus on life support skills, problem-solving skills, communication skills, collaboration, and family issues (Hamilton, 2010). The goal in providing end of life care in nursing education through the use of simulation was to alter the student's perceptions of death and dying, help to lower fear, decrease anxiety, and implement coping mechanisms. Faculty needs to add more detailed end of life content care in the curriculum.

According to Leighton and Dubas (2009), simulation is an alternative method to traditional clinical rotations where students may or may not be exposed to a dying patient. For nursing students caring for a dying patient can cause anxiety and leave the student feeling incapable. Students lack confidence and self-efficacy when caring for patients at the end of life. When students became practicing nurses the most common complaint has been they wish they had covered how to talk to patients and families during the dying process. Leighton and Dubas (2009), reported three aspects of providing care to the dying patient seem to trigger an increased level of stress and anxiety for students. These included provision of emotional support to patients who are dying, and their families, physical care for dying patients, and post-mortem care. A real fear exists for inexperienced nurses such as they may say the wrong thing at the wrong time to a patient or their family. Simulation would be effective and beneficial to help with this fear. The simulation environment provided a safe, interactive, and hands on learning experience for students to overcome these fears. Faculty cannot control patients in the traditional clinical setting but they can; however, control patients in the simulation laboratory. The use of a high fidelity simulation that mimics a real-life scenario was a

challenge for students but also provided a real insight in the student's ability to critically reason and self-reflect.

In a study completed by Beckstrand, Callister, and Kirchhoff (2006), more than 2.4 million deaths occurred each year in the United States (US) with 80% of these deaths occurring in hospitals and 20% occurring in the intensive care unit (ICU). Nurses in the ICU reported that communication remained a challenge among the healthcare team. One of the nurses in the study referred to death as the most critical point of illness, and death must be treated with dignity and respect. All members of the healthcare team learned to know when a patient is near impending death, and enough treatment and heroic life saving measures were just not in the best interest of the patient anymore. Those were difficult conversations to have with families. Communication was crucial so every member of the healthcare team has been working towards the same goal or plan of care. The goal should always be to focus on the patient providing comfort and high quality care at the end of life. Nursing students needed to realize caring for the dying patient requires more time with the patient and family and requires a higher skill set. Nursing students needed to realize most American patients did not fear death or dying itself, but the process of death and fear of the unknown (Beckstrand et al., 2006).

According to a study completed by Efstathiou and Walker (2014), nursing educators were beginning the use of simulation as a way to provide meaningful learning experiences in a controlled environment, which masters clinical skills. Interactive simulation has provided an opportunity to impact students view on death and dying as a positive outcome. Simulation methods focused on either before the death of a patient,

during the final days of a dying patient, or after the death of a patient including postmortem care and dealing with grieving families.

In a phenomenographic methodological approach a study by Venkatasalu, Kelleher, and Shao (2015), stated an emphasis needed to be placed on providing adequate end of life care to all health professionals including nursing students. Nurses spend more time with dying patients than any other health professional, but only four out of five nurses were sufficiently trained to deliver high quality end of life care. As nurse educators, it has been our duty to make sure teaching and learning strategies in regards to end of life care topics were covered extensively. Simulation is a strategy that has helped students learn hands on skills which will prepare them for clinical. The effectiveness of simulation as a teaching learning strategy has been understudied and not fully understood especially in end of life care scenarios. Research suggested high fidelity simulation was just as effective as classroom sessions and clinical placement. Nursing students reported simulation scenarios on death and dying helped them to expect the unexpected and dealing with death is emotionally challenging (Venkatasalu et al., 2015). Simulation helped to relieve anxiety and helped the student to mentally prepare to deal with a dying patient. Teaching simulation in a pedagogical approach provided self-confidence, communication skills, and knowledge regarding end of life care and helps to put theory into practice. Venkatasalu et al. (2015), reported future implications for clinical education regarding simulation in end of life care. These included the following: both seminar-based and simulation-based teaching impacting knowledge on end of life care. Simulation-based teaching allowed student nurses to perform both affirmative and intended clinical outcomes during clinical placements. Incorporating simulation-based

teaching into the nursing curriculum helped students to consolidate and develop further end of life care skills and knowledge. Promoting simulation-based end of life care training both in clinical practice and nursing education was needed to improve quality life. And finally, existing nurse educators should consider integrating the simulation-based teaching along with current end of life care teaching and learning strategies to augment positive clinical outcomes (Venkatasalu et al., 2015).

According to Kopp and Hanson (2012), as the population in the US increased so did the co-mordities such as chronic illnesses like end stage chronic obstructive pulmonary disease (COPD). Nurses needed to be more prepared than ever to care for the dying patient by providing high quality care. Some nursing schools incorporated high fidelity simulation and gaming simulations to approach end of life care in nursing education. Literature supported that a deficit exist in the nursing curriculum regarding end of life care. The ELNEC identified nine key elements that were used as a nursing foundation in end of life care. Those included, "nursing care at the end of life, pain management, symptom management, ethical and legal issues, cultural considerations in end of life care, communication, grief, loss, bereavement, achieving quality care at the end of life, preparation and care at the end of life" (p e98).

All nursing student graduates should have attained these competencies. Simulation was goal driven which supports active learning and a hands on approach. Simulation also helped to bridge the gap between didactic and clinical, helping to increase critical reasoning.

As patients are living longer and have more complex disease and treatments health care settings have become even more technical. The high technical demands

require nurses to have a high level of skills set upon entrance into the workforce. New graduates must leave nursing school prepared to practice at such a high level of competency. As nurse educators it has been our duty to make sure teaching strategies were implemented to promote advancement of the student's clinical reasoning which promoted a strengthening of the student's clinical reasoning and reflective thinking skills. Simulation has allowed the students the safe area they need to practice as they began their journey as a novice nurse to a more experienced and seasoned nurse. The use of simulation helped to bridge the gap between theory and practice. According to Onda (2012), researchers have argued skills and knowledge vary depending on how the content is taught didactically and how it is practiced or encountered in varies clinical settings. Students may be able to pass a test in the classroom on death and dying, but may not be able to transfer the knowledge in a clinical setting. This gap can be viewed as a positive or a negative. A positive view can allow the development and advancement in nursing knowledge which is how changes are made in nursing, leading to improved patient care and outcomes. Students often times understand the "what" but not the "how", simulation was a perfect opportunity to help bridge this gap. Simulation scenarios needed to be meaningful, purposeful, and represent practice as much as possible, allowing for collaboration with different health care members for student growth. Students should be given the opportunity to explore different roles within the simulation such as family members, visitors, charge nurse, medication nurse, or co-workers. After the simulation, time needs to be given to allow for reflection. Reflection enabled the students to think about self-performance and allow problem solving skills. When students reflect seeds of critical thinking are being sown (Onda, 2012).

In an article by Nicely and DeLario (2011), Virginia Henderson who was considered the first lady of nursing by many stated “nursing stands separately from medicine, the nurse does more than simply follow a physician’s order” (p 72). “The nurse is temporarily the consciousness of the unconscious, the love of the suicidal, the leg of the amputee, the eyes of the newly blind, a means of the locomotion for the newborn, knowledge and confidence for the young mother, a voice for those too weak to speak” (Henderson, 2006, p 72). Henderson believed the best healthcare was patient and family focused making good communication at the center. This was especially true with patients and families who are nearing the dying process.

SECTION III

Needs Assessment

PICOT

The simulation project took place in a rural county in North Carolina (NC) at a small community college. The college accepts 42 students each fall for day and evening classes in the LPN program. The project was implemented in the fall 2017 and focused on the licensed practical nurses (LPN) at the community college. The population consisted of LPN students who entered nursing school in August 2017, these students were enrolled in Fundamentals of Nursing and were utilizing the simulation lab for the first time. The intervention consisted of a simulation that focused on the students providing end of life to a dying patient and also focused on communicating with the patient and their family. Sensitive topics were discussed such as caring for the dying patient and postmortem care. The simulation was conducted in a controlled environment which fosters a learning experience for the students. The simulation was to better prepare the students for entry level practice and helped the students to decrease their anxiety regarding caring for a dying patient. The outcome or goal of this DNP project was to help increase the student's self-confidence level and decrease their anxiety level in dealing with dying patients and families. The simulation lasted approximately one and a half hours consisting of 15 minutes pre-brief, 30 minutes of actual scenario, and 45 minutes of debrief. After simulation had taken place it was very important to debrief with the students so they were allowed to learn by reflection. Simulation can be done in a low cost effective way such as role play, virtual simulators, or by using a more expensive high fidelity manikin. Jeffries (2007b), developed key features that make a well-designed

simulation. These included clear written objectives, a scenario which mimics real life, complex situations, and cues as the simulation progresses for each participant and debriefing before and after the scenario (Jeffries, 2007b).

Stakeholders

A number of key stakeholders were identified for this project. Internally the administration of the college, including the Dean of health sciences, assistant director of the nursing program, faculty members who teach in the nursing program, and the nursing students participating in the simulation were vital stakeholders. Residents within the community and clinical sites such as long term care facilities, hospitals in the area, urgent care clinic, and physician offices were key external stakeholders for this project.

Available Resources

The community college had a small dedicated simulation lab where the simulation took place. They also had a dedicated classroom where pre-brief and debriefing will take place after the simulation occurred. Faculty was a part of the simulation by playing the role of the grieving family members.

The equipment used was Laerdal mid-fidelity manikins. These manikins were equipped to simulate a beating heart, lung sounds, and bowel sounds. Students were able to obtain vital signs as they decreased throughout the scenario. The new simulation center opened September 2017 and was utilized for the DNP project.

Desired Outcomes

The goal of the simulation project was to increase the LPN's self-confidence while decreasing their anxiety regarding end of life care when caring for a dying patient. The LPN student learned important communication styles and techniques sensitive to

grief and loss. The student was to understand how to care for a patient who is imminent, then provide postmortem care, followed by a time of reflection allowing students to ask questions to help them develop critical reasoning skills.

SWOT Analysis

Strengths	**Weaknesses**
Grants	Location
Faculty student ratio	Qualified students
New simulation center	Budget
Opportunities	**Threats**
CHSE staff	Surrounding counties with simulation lab
Grow simulation lab	Decreased retention
Expand nursing to offer RN program	NCLEX success rates

Figure 1. SWOT Analysis

Strengths

A new simulation center opened in September 2017. The new center was equipped with the most up to date mid and high fidelity manikins. The faculty were experienced educators with a small faculty to student ratio with the average being one faculty to 17 students. The program was successful and has longevity of over 50 years. The program has a variety of clinical sites who are very supportive. The college is also supported with grant funding.

Weaknesses

The college was located in a poor rural county in western NC. It is always a challenge to find qualified students who meet the admission criteria to fill the 42 slots each year. However, slots always are filled prior to the deadline for acceptance into the program. Like most community colleges, the financial constraints and the budget are always a task.

Opportunities

Several opportunities were available to help expand and grow their nursing program which included partnership programs, community outreach, and increase grant funding. Additional opportunities included, growing the simulation lab to increase revenue for the college. This can be achieved by the simulation center becoming accredited and employing a Certified Healthcare Simulation Educator (CHSE). A program expansion to include an Associate of Nursing Degree (ADN) is an additional opportunity for the community college.

Threats

As a small rural community college in western North Carolina dangers exists such as decreased retention, decreased NCLEX success rates, and budget restrictions. Having the financial availability to hire a fulltime faculty member educated in simulation and having the money to supply the simulation lab and keep supplies ordered are also threat. All of these can greatly impact the nursing program and the college. Successful simulation centers in surrounding counties are also a threat. Faculty and student buy in is very important for the simulation to be successful.

Team Selection

Team selection consisted of four faculty who currently teach in the nursing program along with the dean of health sciences. Two of the faculty were MSN prepared and two were in the process of obtaining their doctoral degrees. The dean was MSN prepared and the practicum partner held a doctorate degree. The faculty ranged from 25 years of experience in nursing education to three years of nursing education experience. A doctoral prepared nurse practitioner with 15 years of nursing experience was the faculty chair overseeing this DNP project.

Cost Analysis

The cost of this project was neutral. There was no extra cost associated with using the simulation lab or manikins. No additional supplies, equipment, or fees associated with the building were associated with the DNP project. Faculty were salary based and no additional cost for assisting with the simulation was associated with the project. The students did not have any extra cost for attending this simulation.

Scope of Problem

The literature was shown as students entered clinical sites unprepared to care for the dying patient. With the use of simulation, students could practice in a low stress environment and learn how to communicate with the patient and family. This may help the student identify how they view death. Understanding their views was important before they could help assist a dying patient and their family. A realistic simulation scenario focused on end of life care helped to develop confidence and tactile skills for students.

SECTION IV

Goals, Objectives, & Mission Statement

Mission Statement

The purpose of this DNP project was to use a simulation scenario to help educate licensed practical nurses (LPNs) in dealing with a dying patient and their family. The problem statement could best be stated as end of life care scenarios in simulation will help students to develop confidence and relieve anxiety by enacting a patient's death. The overall purpose of this simulation is to focus on the LPN students at a small community college making sure they felt confident in their communication skills and nursing skills while feeling less anxious during patient and family interaction.

Goals

The goals associated with this DNP project were helping to ensure the objectives were met. The most important goal was to decrease anxiety and increase confidence among the LPN students when dealing with a dying patient and grieving family. Another important goal was to increase the comfort level and knowledge of the LPN student when dealing with death and dying. Other goals identified included increased communication skills when dealing with a dying patient and grieving family, and ensure the LPN students have the nursing skills needed to provide end of life care to a dying patient.

Objectives

The objectives corresponded to the goals to ensure each was met. The objectives included, decrease anxiety by providing a simulation scenario focusing on death and dying which will allow the LPN students to have a hands on approach to the sensitive and uncomfortable topic of death. Additional objectives included, the use of the simulation

scenario will help to increase the knowledge base of the LPN student by providing a realistic scenario on death and dying. The simulation scenario also allowed the LPN students the opportunity to have difficult conversations, which enhanced their communication with a dying patient and their grieving family in a safe and non-threatening environment. This activity provided the opportunity for the LPN students to care for a dying patient and provide post-mortem care.

SECTION V

Theoretical Underpinning

The DNP project was supported by nursing theorist Pamela Jeffries and Katharine Kolcaba. Both theorists provided substantial support to the DNP project in different ways. Jeffries framework focused on simulation while Kolcaba's theory focused on comfort.

Comfort Theory

Katharine Kolcaba's nursing theory is called the Comfort Theory and was considered to be a mid-range theory. Kolcaba defines three types of comfort, which were relief, ease, and transcendence (Kolcaba, n.d.). Kolcaba explains comfort occurs in four separate context areas, which include, psychospiritual, physical, environmental, and sociocultural. Relief is considered a state in which a patient has a certain need; this state is needed for the patient to return to former baseline or to have a peaceful death (Klocaba, n.d.). Ease is the state where calmness and contentment takes place (Kolcaba, n.d.). Transcendence occurs when a patient is able to rise above their pain or problem (Kolcaba, n.d.). Comfort occurs in a physical context by bodily sensations. The psychospiritual context of comfort pertains to internal awareness including self-esteem, and sexuality. The environmental context of comfort is pertaining to the external surroundings, and influences. The sociocultural context of comfort pertains to interpersonal, family, and social relationships (Kolcaba, n.d.).

The comfort theory describes the healthcare needs as a need recognized from the patient or family. The comforting interventions are considered nursing interventions, which addressed a need identified. Intervening variables are factors, which influence the

perception of comfort such as age, finances, emotional state of health, and attitude. Enhanced comfort is the ultimate goal in the comfort theory. The outcome of nursing interventions is to consistently increase comfort with each nurse patient encounter. A relationship exists between health seeking behaviors and comfort. Health seeking behaviors can be viewed as three parts, which include: internal meaning healing or immune function and occurs internally, external meaning the outer world viewed as health related activities, self-care activities, or health maintenance outcomes, and finally health seeking behaviors can be having a peaceful death. The nurse has a responsibility to look for signs of pain or discomfort in a patient who is unable to communicate to provide comfort either by enhancing healing or ensuring a peaceful death. Institutional integrity defines the organization's values and stability at all levels (Kolcaba, 1994). Best practices and best policies are procedures identified after evidence have been collected that a health facility will use. When comfort is achieved then the health seeking behaviors are strengthened by the patient either becoming more engaged or having a peaceful death (Kolcaba, 1994).

The comfort theory is also known as looking at the patient with a holistic approach. The mind, body, heart, and soul is treated. The comfort in nursing has been around since the times of Nightingale. Comfort is at the heart of nursing and is the ultimate goal. A lot of times nurses are arbitrated of how comfortable they can make their patients. Comfort can be mental or physical (Kolcaba & Kolcaba, 1991). The department of health, education, and welfare (DHEW) released the standards for comfort, which needs to be met by the nurse if care is to be considered quality care (Kolcaba & Kolcaba, 1991). Comfort measures can also be viewed as a state of comfort or be thought of in a

sense of nursing interventions causing mental and physical ease. Comfort is defined for nursing as "the satisfaction (actively, passively, or co-operatively) of the basic human needs for relief, ease, or transcendence arising from health care situations that are stressful" (Kolcaba, 1994, p. 1178). The comfort theory is considered to be two-dimensional and can be placed on a grid. The first dimension focuses on relief, ease, and transcendence. The second dimension focuses on contexts in which comfort occurs which is physical, psychospiritual, environmental, and social realm (Kolcaba, 1994).

"The theory of comfort provides direction for nursing practice and research because it entails an outcome that is measurable, holistic, and positive and nurse sensitive. Clinicians have the capability and disciplinary interest to effect comfort, and patients look to nurses for help in achieving comfort" (Kolcaba, 1994, p. 1183). When patients are facing end of life their comfort needs go beyond pain management. Their needs deepen into spiritual, social, and environmental comfort. The focus could be possibly resolving an old conflict with a family member, which will give them the harmony they need to have a peaceful death. Nurses and student nurses also have comfort needs which will need to be met including reassurance, correct information, and encouragement (Novak, Kolcaba, Steiner, & Dowd, 2001). A holistic concept of comfort in dealing with end of life care patients is to increase comfort, this will provide spiritual strength and will facilitate a peaceful death.

Simulation Framework

The nursing education simulation framework was developed for the National League of Nursing (NLN) and Laerdal simulation by Pamela Jeffries (Jeffries, 2007b). Students use simulation as a way to help with critical thinking skills and a method of

learning without causing harm to the patient. Simulation mimics real life scenarios involving real standardized patients, videos, manikins, or role playing. The need became apparent for a simulation model to help guide simulation in design, implementation, and evaluation of outcomes in a consistent manner. The nursing simulation framework has five conceptual components. These include the teacher, student, educational practices, simulation design characteristics, and outcomes.

The teacher is listed as the first of the framework components. The teacher acts as the facilitator or the evaluator. Simulation is more student centered and this is a change where in traditional classroom settings it is more teacher centered. During the simulation the teacher playing the facilitator role will offer support and guidance (Jeffries, 2007b). The facilitator will lead debriefing after the simulations. In the evaluators role the teacher acts strictly as an observer (Jeffries, 2007b). The demographics of the faculty such as age, clinical experience, and years of experience play a role in the use of simulation with students. These are factors that are linked to the comfort and role the faculty play in simulation, in addition to the overall use of simulation among faculty members (Jeffries, 2007b).

The student needs to be self-motivated in order to get the full understanding from simulation. Simulation is to foster growth in learning and education for the students. Students are assigned a role during simulation such as nurse, family member, observer, patient, or an unlicensed staff member. During the debriefing process students will have the opportunity to discuss their role in the simulation. Students have the opportunity for self-evaluation this can be achieved by watching a play back video of the simulation.

The educational practices addressed the components of active learning, diverse learning styles, collaboration, and high expectations. Active learning helps students be more involved in the simulation. Students need to understand this is the place that mistakes can take place and feedback can be provided before entering practice. Collaboration helps build a positive relationship between the student and the faculty. The learner needs to have an atmosphere where they feel comfortable talking with faculty in order for learning to be enriched. High expectations need to be set from faculty as well as students during simulation. When educational goals are set among the two parties success is achieved in most circumstances as long as communication and trust are open (Jeffries, 2007b). Students need to understand faculty is available and to not be afraid of making mistakes. This is where growth and learning come from (Jeffries, 2007b).

Simulation design characteristics should include five features: objectives, fidelity, problem solving, student support, and reflective thinking (Jeffries, 2007b). Objectives can determine the outcomes of the simulation. Fidelity simply means the level of complexity of the manikins. There are three levels: low, mid, and high fidelity manikins. Problem solving means how multifaceted the simulation is which is based on the skill and knowledge of the students. Student support focuses on how the student may need cues during the simulation to help with problem solving. Reflective thinking also known as debriefing occurs immediately after simulation. During reflective thinking the nurse educator or the facilitator guides and leads the debriefing. Students are able to discuss what was learned ideally objectives will be met. Outcomes need to be discussed prior to the simulation beginning (Jeffries, 2007b). "Evaluating outcomes is essential to

determining what students have learned and the overall effectiveness of the simulation experience" (Jeffries, 2007b, p. 31).

The DNP project utilized both the Comfort Theory and Simulation Framework Theory. Jefferies provided a guide for simulation allowing students to experience a dying patient and build upon their critical thinking skill. Kolcaba's theory provided a guide to help students understand comfort and holistic care when dealing with a dying patient and their family.

SECTION VI

Work Planning

Project Proposal

Nursing students were not prepared to care for a dying patient when they enter clinical sites or entry level practice. It is possible that students will experience a dying patient on their first clinical day or during their first clinical rotation. As educators it is our responsibility to make sure nursing students are prepared to handle this experience.

A mass email was sent to 34 Licensed Practical Nursing students one week prior to the implementation of the DNP project. The DNP student hand delivered the C-scale (Appendix A) and informed consent to the student's classroom prior to the simulation activity beginning. The participants were instructed by completing the consent and C-scale they agreed to participate in the DNP project. The informed consent educated participants that completion of the C-scale was voluntary and there were no obligations to complete the C-scale or informed consent. The pre-test was labeled A and the post-test was labeled B. The pre-test and post-test forms were coded to distinguish improvement in confidence from the beginning to the end of the simulation. The C-scale pre-test was completed prior to the simulation activity. If any student decided not to participate in the simulation activity they did not complete the C-scale. The DNP student asked a student volunteer to collect the surveys and then hand deliver them back to the DNP student. Participants were asked not to include their names or any other identifying information on the C-scale.

After pre-brief was completed and participants completed the informed consent and C-scale, students began the simulation activity. The end of life simulation

lasted 30 minutes. At the conclusion of the simulation a 45 minutes debrief was completed. Students were allowed to reflect on the learning that occurred during the simulation. Debrief was student lead and the DNP student was the facilitator. The same C-scale that was completed by participants during pre-brief was again completed during debrief. Once all pre-test and post-test were completed, statistical analysis was used to determine statistical significance of the DNP project.

Project Management Tools

GANTT Chart

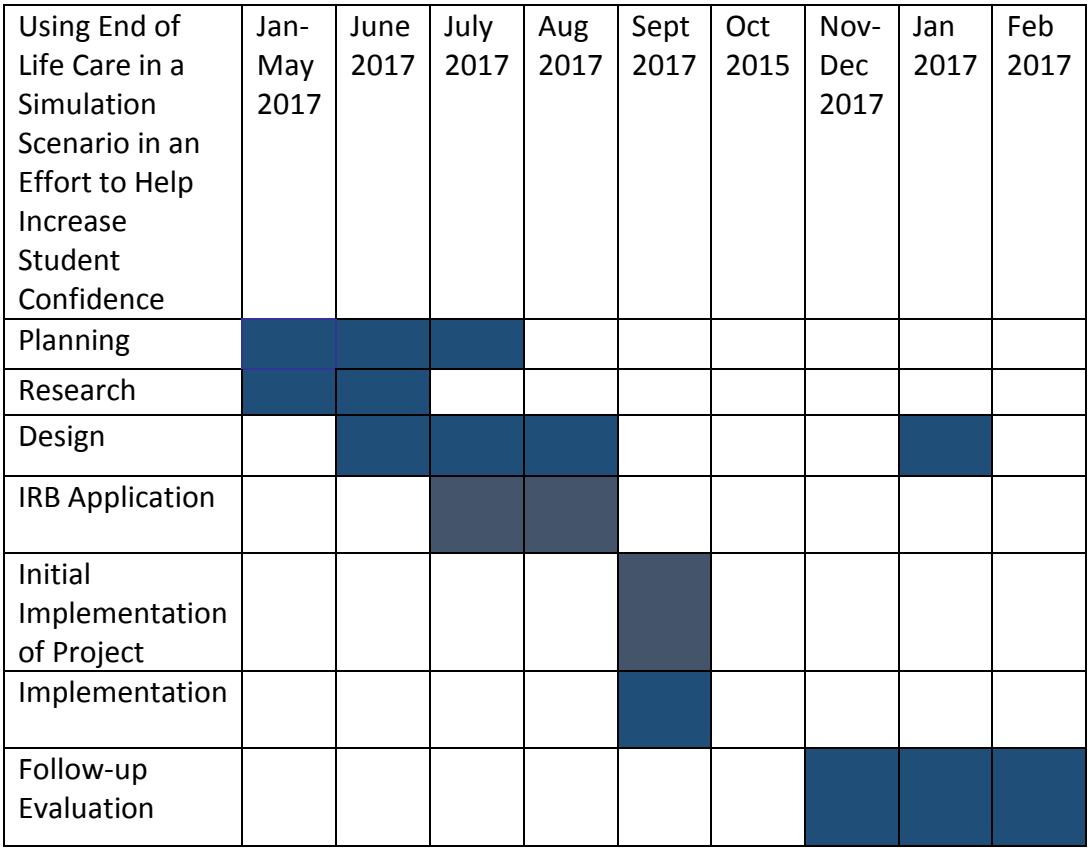

Figure 2. GANTT Chart

Timeline of Project Implementation

	Week 1 August 28- September 1, 2017	Week 2 September 4-8, 2017	Week 3 September 11- 15, 2017	Week 4 September 18- 22, 2017
Planning				
Set-up				
Implementation				
Breakdown				
Evaluation				

Figure 3. Timeline

SECTION VII

Evaluation Plan

Evaluation planning was one of the most important phases of the DNP project. This was to ensure outcomes are measurable and will be met. It is also very important the outcomes are clear to everyone involved in the project. Collection of data can be qualitative or quantitative. For the purpose of this DNP project, data was to be collected to measure change in the population of Licensed Practical Nursing (LPN) students and the practice of providing end of life care to a patient and communicating with the grieving family.

Tool selection was crucial in planning the evaluation of the DNP project. The tool selected needs to be reliable and have been tested for validity. The tool selected for the DNP project was developed by Susan E. Grundy in 1993 and called the confidence scale also known as the C-scale. The C-Scale is a measure of a subject confidence in performing a task. This tool asks students five questions and ask them to rate their confidence on a scale of one to five; one meaning no confidence and five meaning absolutely confident. The questions are then added and the student score can range from five meaning low confidence to 25 meaning high confidence. This scale has been determined as reliable and valid. The C-Scale has a high internal consistency as measured by Cronbach's alpha (Cronbach's alpha= 0.85). It is considered an appropriate, feasible, reliable, valid, responsive, and acceptable tool.

For this DNP, project descriptive statistical methods and a t-test could be used and helpful in measuring the outcomes. The quantitative method will be good to see how all the students as an average respond to the simulation scenario. The qualitative method

will also be helpful in determining how useful the project was and what could be done differently to make the simulation more effective. A pre and posttest will be given to the students before and after the simulation to score their confidence using the C-scale.

Logic Model Development

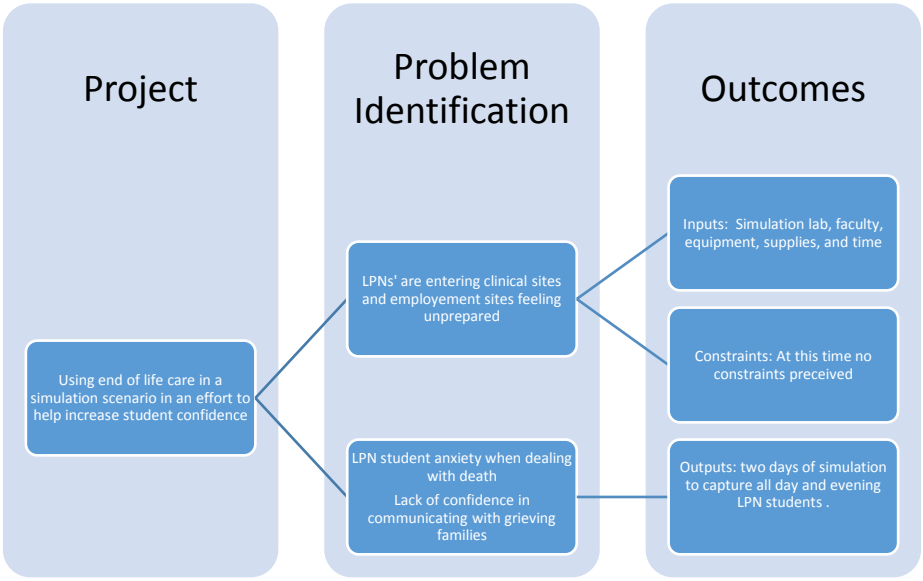

Figure 4. Project, Problem Identification, and Outcomes

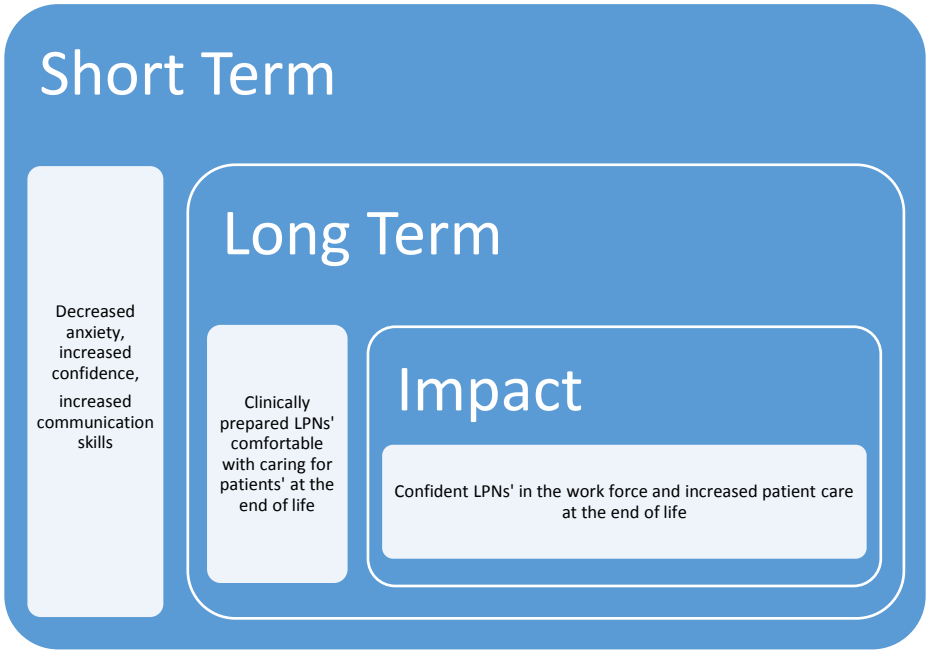

Figure 5. Short Term, Long Term, and Impact

Quality Improvement Methods

The quality improvement model encouraged continuous improvement within organizations. The model has four stages consisting of plan, do, check, and act. The Planning part of the cycle is where data is collected, analyzed, and the intervention for the project is planned. Planning is also known as where the problem is identified. The Do part of the cycle is where solutions are developed and tested. The Check part of the cycle is where outcome measurements are completed and analyzed to evaluate if any adjustments are needed to the project. Results are also studied within this stage of the project. The Act part of the cycle is where changes or modifications are made based on the best solution (Zaccagnini & White, 2017).

SECTION VIII

Project Implementation

IRB Approval

No IRB approval was needed from the small rural community college in Western, NC. The Vice President of Learning from the community college provided a letter on May 18, 2017 reporting the DNP student had permission to utilize the community college as the site of implementation. IRB approval was obtained from the University's School of Nursing on August 24, 2017.

Implementation

The DNP student had multiple meetings and visits with faculty members prior to the end of life simulation. The meetings included discussing what to do if experience faulty equipment and the backup plan including utilizing the old simulation center and manikins. The project was implemented at a small rural community college in Western, NC during the month of September 2017. Thirty-four practical nursing students were sent an email one week prior to the simulation offering an invitation. Students who participated in this study were asked a series of four questions to think about prior to the simulation as a way to prepare. These included, describe the nursing management of the dying patient, identify how pain is determined and managed in an unresponsive and terminal patient, examine the rational for the use of medications such as morphine, haloperidol, glycopyrolate, and lorazepam in the treatment of a terminal patient, and lastly discuss the nursing care of the patient after death. The project idea became a reality in the fall semester of September 2017. A total of 28 of the 34 students between day and evening sections participated on a volunteer basis in the simulation scenario. The C-scale

pre and post-test was completed. Data was collected and then analyzed by a professional statistician.

Students were asked to voluntarily participate in the simulation between the day and evening sections without any consequences to their grade. Students were provided a pre-brief of the scenario prior to the start of the situation which gave details of the setup. Students were then placed into small groups and completed the scenario. After the scenario was complete the students went to the conference room where debriefing took place and self-reflection occurred. Mid-fidelity manikins were used to simulate the scenario of a patient death and communicating with the grieving family members and other members of the interdisciplinary team. The methods used will be a pre-test prior to simulation and a post-test after the simulation has occurred. This will help to ensure the student has gained knowledge in dealing with a dying patient and their grieving family. Students will be divided into small groups for the simulation. Each group will have the same experience in simulation and the same scenario. After the simulation has occurred debriefing will take place in a small classroom to allow the students a time to reflect and a question and answer time will be given at the very end of the simulation.

Sustainability and Limitations

Future recommendations were discussed of when would be the best time to introduce a simulation scenario during the first semester based on the results of the project. A limitation noted was students needed to have an orientation to the simulation center and to the equipment prior to any simulation. The small and rural community college in Western, NC plans to implement the scenario into their curriculum which will give the DNP project the sustainability it needs for the future.

SECTION IX

Interpretation of Data

Data Analysis

The overall goal and expectation is that the simulation study would increase the student confidence in performing end of life care to the patient and to the patient's family. First, the DNP student and statistician summarized the data using bar charts located in this section. The C-Scale was made of five questions. For the C-Scale pre-test data and post-test data results are as follows. According to the pre-test question one "I am certain that my performance is correct" (Figure 6) a majority of the students were fairly certain for a good number of the steps. Post-test results (Figure 6) revealed a majority of the students was certain for most of the steps.

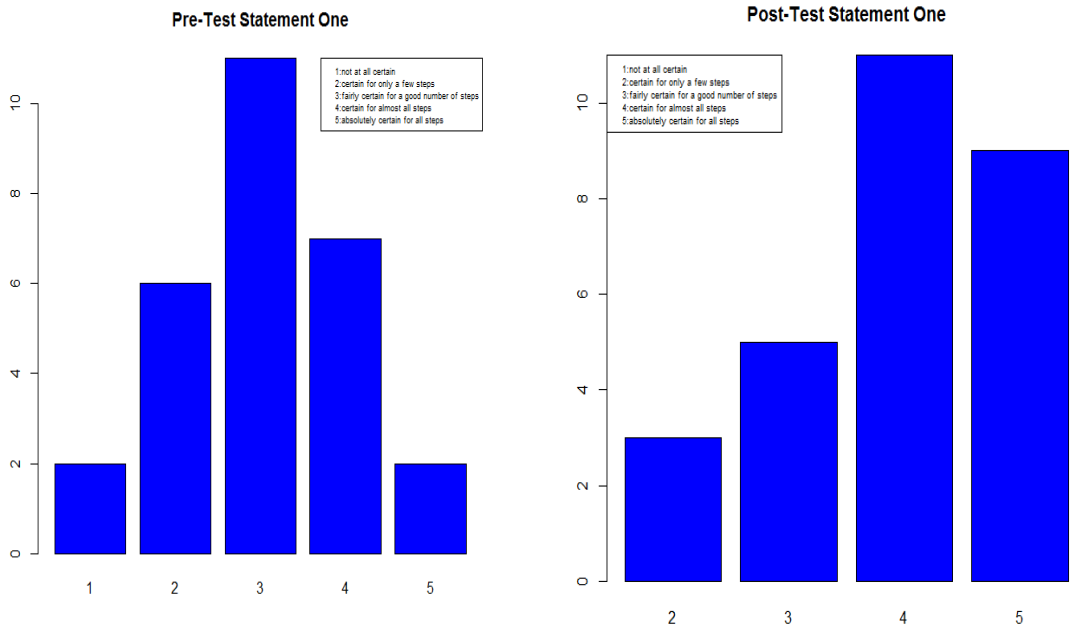

Figure 6. Pre and Post-test for Question 1

Question two “I feel that I perform end of life care without hesitation” (Figure 7) a majority of the students responded they felt they could perform a good part of it without hesitation. Post-test results (Figure 7) revealed majority of the students responded that they had absolutely no hesitation in performing end of life care.

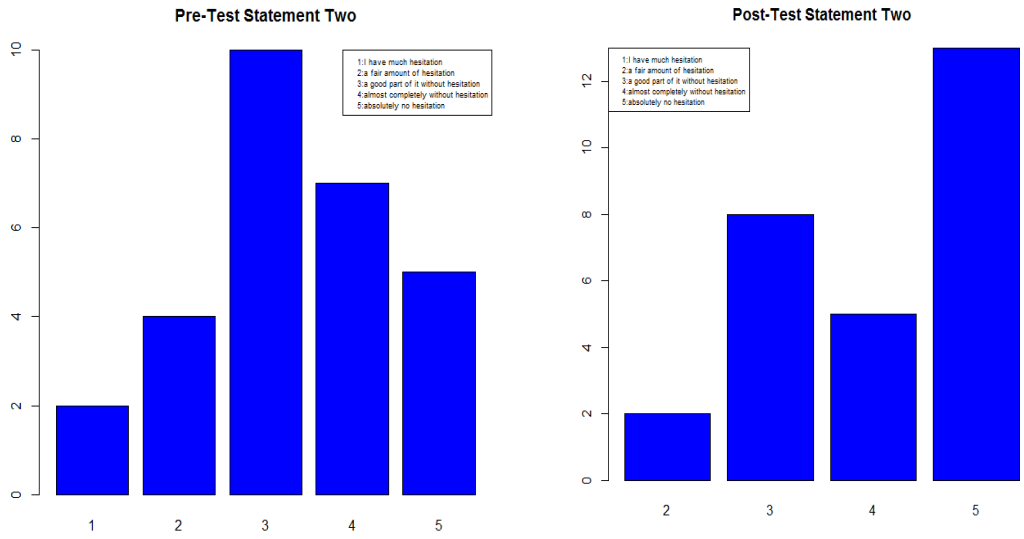

Figure 7. Pre and Post-test for Question 2

Question three “My performance would convince an observer that I am competent at end of life care” (Figure 8) a majority of the students would convince an observer they were competent in end of life care. Post-test (Figure 8) showed a majority of the students responded they felt they could convince an observer that they were competent for most all of the care.

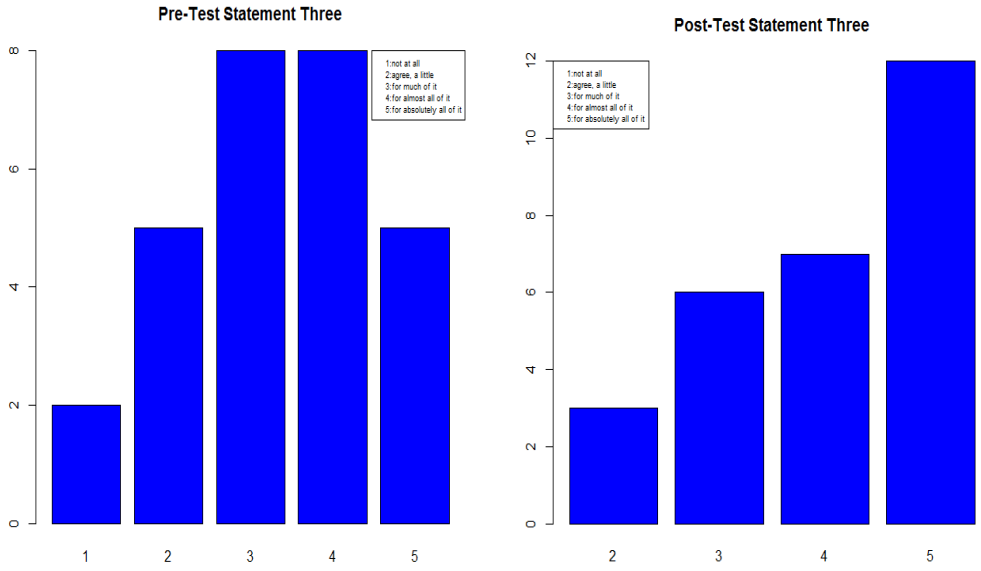

Figure 8. Pre and Post-test for Question 3

Question four “I feel sure of myself as I perform end of life care” (Figure 9) a majority of the students felt sure for most of it. Post-test (Figure 9) revealed a majority of the students felt sure of their self for absolutely all of it.

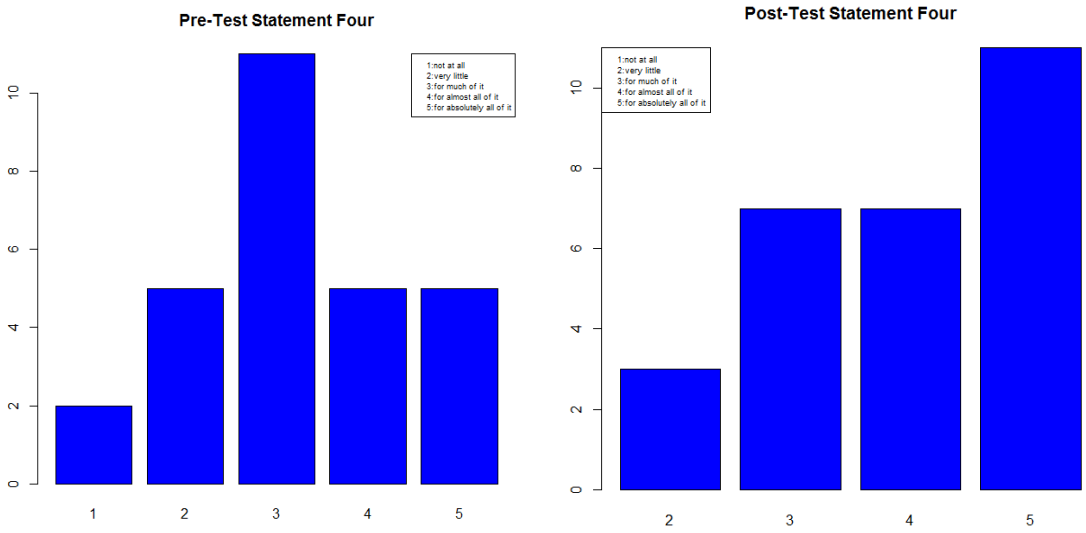

Figure 9. Pre and Post-test for Question 4

Question five “I feel satisfied with my performance in end of life care” (Figure 10) a majority of the students was satisfied with their performance. Post-test results (Figure 10) noted a majority of the students felt absolutely satisfied with their performance in end of life care.

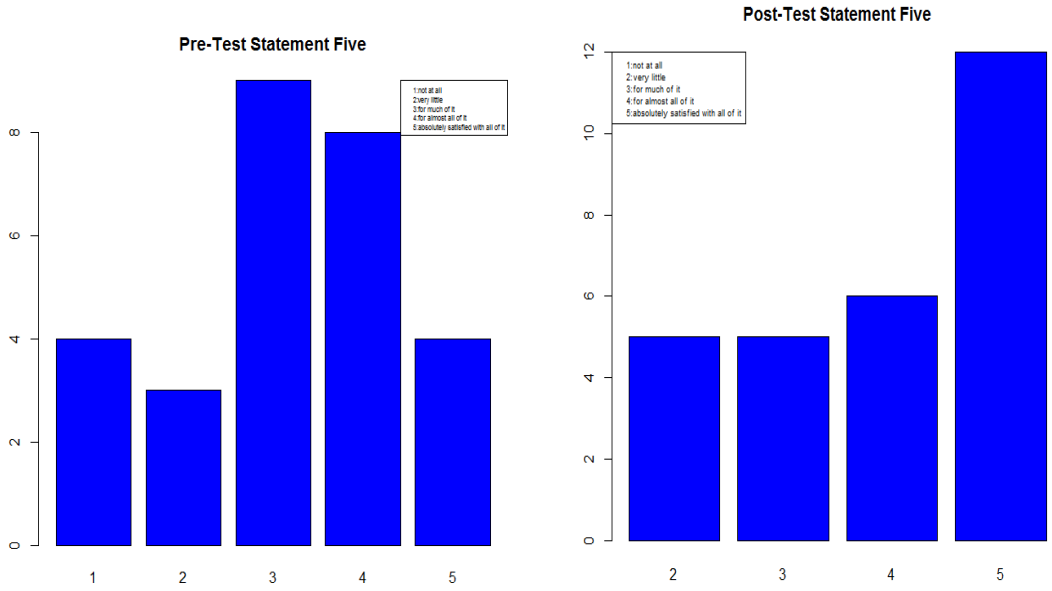

Figure 10. Pre and Post-test for Question 5

As the data showed in comparison of the pre-test and post-test improvement was made in the student’s confidence. Student were noted to have a decrease in anxiety. There was a strong evidence of an increase in student confidence after the simulation scenario.

Conclusion

In conclusion, this evidence based DNP project was used to determine if an end of life care simulation scenario would be helpful in increasing student confidence. The findings revealed that LPN students did show an increase in confidence after the simulation scenario in dealing with end of life care. Not only did their confidence improve, but they also had a decrease in feeling anxious when dealing with a dying patient and communicating with the grieving family. More nursing programs need to implement similar scenarios into their curriculum to help prepare students in dealing with death and dying. End of life scenarios can better equip students with clinical and communication skills needed with dealing with death and grieving families while in practice.

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Appendix A

C-Scale

Code Number: _____

Directions: Circle the number which best describes how confident you are in your current ability to provide end-of-life care to a patient. (NOTE: Make sure that the circle encloses just ONE number.)

1. I am certain that my performance is correct:

1	2	3	4	5
not at all certain	certain for only a few steps	fairly certain for a good number of steps	certain for almost all steps	absolutely certain for all steps

2. I feel that I perform the task without hesitation:

1	2	3	4	5
I have much hesitation	a fair amount of hesitation	a good part of it without hesitation	almost completely without hesitation	absolutely no hesitation

3. My performance would convince an observer that I'm competent at this task:

1	2	3	4	5
not at all	agree, a little	for much of it	for almost all of it	for absolutely all of it

4. I feel sure of myself as I perform end-of-life care:

1	2	3	4	5
not at all	very little	for much of it	for almost all of it	for absolutely all of it

5. I feel satisfied with my performance in providing end-of-life care:

1	2	3	4	5
not at all	very little	for much of it	for almost all of it	absolutely satisfied with all of it