

BSN to DNP Students' Knowledge and Plan of Care on Palliative Care

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Abstract

Purpose:

The purpose of this project was to review palliative care understanding among nurses with a bachelor's degree enrolled in a doctoral nurse practitioner program during the clinical component of the educational program. Palliative care can be used as part of treatment to ease symptoms related to severe illnesses. Clinicians should have a fundamental understanding of palliative care and provide it as part of treatment plans when appropriate.

Methodology:

This project collected demographic data from participants. The project used the Palliative Care Quiz for Nursing (PCQN) and a palliative plan of care for a seriously ill patient pre-intervention, post, and a one-month follow up to assess for improvement on the knowledge of palliative care.

Results:

There was a total of 35 participants that were recruited for the project; 17 participants completed all aspects of the project. The intervention did yield a change in knowledge but there was no statistical significance among the pretest and post-tests. The plan of care showed improvement post the intervention in the treatment plans of a seriously ill patient that required palliative care.

Implications for Practice:

Palliative care education in the nurse practitioner curriculum is important because the population is aging. The fundamentals of palliative care are required for patients that are seriously ill. Clinicians and healthcare organizations can obtain reimbursement by Medicare and Medicaid if they provide advance care planning to patients. There are laws that have been adopted to encourage clinicians to provide palliative care. The implication for nurse practitioners to be well versed in palliative care is essential if they are responsible to provide a multifactorial treatment plan for all aspects of an illness. Quality of patient care and cost containment improves for the healthcare organization improves with the use of palliative care.

BSN to DNP Students' Knowledge on Palliative Care

Introduction

The practice of including palliative care (PC) as a part of a comprehensive treatment plan is often overlooked by clinicians when managing patients and their families facing chronic diseases. Clinicians who do incorporate palliative care in their practices know that it is a multifaceted process that encompasses: managing patients who are advanced in age, symptoms management for patients with untreatable diseases, supporting patients suffering from chronic illnesses, and providing physiological and psychological support (National Coalition for Hospice and Palliative Care, 2018). Palliative care falls under the overall umbrella of end of life (EOL) care. Two essential components to end of life treatment plans are palliative and hospice care services; both of which have been shown to improve patient treatment and outcomes; particularly for those suffering from illnesses that are not treatable ("Hospice & Palliative Care," 2018). Palliative care is defined as specialized supportive care and symptom management explicitly provided to individuals with serious illnesses throughout their treatment ("Hospice & Palliative Care," 2018). While hospice care is defined as comfort care and management of patients once all viable treatment options have been exhausted and any other courses of action would prove futile ("Hospice & Palliative Care," 2018). Hospice patients are at the end of life with a prognosis of 6 months or less ("Hospice & Palliative Care," 2018). Clinicians should be comfortable with providing individuals with PC, and institutions need to devise new ways to encourage and incorporate PC as the service has proven useful for those that are seriously ill (Institute of Medicine [IOM], 2014).

It is essential to define precisely how palliative care works. The World Health Organization (WHO; 2019), describes palliative care (PC) to be used as part of treatment for patients dealing with an illness that is chronic or can lead to death. Palliative care encompasses treating symptoms such as pain, depression, nausea, or diarrhea (“What is Palliative care?,” 2019). Palliative care is typically provided by a team of individuals that support patients and families that are dealing with life-altering diseases (“What is Palliative care?,” 2019). Palliative care personnel provides additional education to patients concerning their diseases and treatment options (“What is Palliative care?,” 2019). The Institute of Medicine (IOM; 2014) reports that patients are not introduced to PC in a timely manner, and many times it is too late for them to get the full effect of the service making end of life care traumatic for both patients and their families. Palliative care assists patients with deciding on their goals of care as their illness progresses and consider placing advanced directives if/when they are unable to make decisions (IOM, 2014). Lack of knowledge and discomfort with the concept of PC on the part of the clinician is a significant aspect of why patients are not referred early in the course of their chronic disease (IOM, 2014).

Clinicians have a difficult time discussing palliative care (IOM, 2014). Death is a sensitive topic that cause many to be uncomfortable with the conversation. Chronic diseases like chronic obstructive pulmonary disease, cardiac disease, cancer, dementia, or diabetes mellitus are among common illnesses that worsen over time and lead to death (“What is Palliative Care?,” 2019). Clinicians do not include PC as part of the treatment plans, so patients/families are not ready when conditions worsen (IOM; 2014). Nurse Practitioners (NP) have a responsibility to their patients to provide care that is honest and encompasses the whole patient. The purpose of this project is to evaluate Bachelor of Science in nursing (BSN) to Doctor of Nursing Practice

(DNP) students' knowledge about PC and to assess if an increase in knowledge of PC contributes to a change in plans of care for PC eligible patients. Clinicians are not prepared to discuss PC with their patients; and due to an overwhelming number of individuals with serious illnesses, clinicians should be comfortable with this treatment plan (IOM; 2014).

Background and Significance

When dealing with the topic of PC, clinicians are typically aware that PC services are characteristically utilized by those who have chronic diseases, seriously ill, and our elderly which we will call the PC population. How we care for the PC population is essential because their care not only affect those who are close to them, but it can cause a chain of negative effects in our society. We know that our population is rapidly aging and is expected that those over the age of 65 will outnumber those under the age of 18 by 2035 (US Census Bureau, 2018). This increased size of the older population will place higher demands on health care resources. The need for PC care services will increase in the future, which highlights the need to educate our future clinicians on the services provided by PC.

Affected Population

Palliative care services are typically utilized by those that are dealing with serious illness, at the end stages of chronic diseases and those over the age of 65 years. A PC referral would best serve this population due to the following reasons: the elderly tend to have end-stage chronic diseases; PC focuses on the patient's goals of care choices for the remainder of their life; and provides emotional support for both patients and families. Palliative care may be appropriate across patient populations, but due to the rapidly aging population, it is imperative for the elderly population (Jensen-Seaman & Herbert, 2016).

Clinicians should be knowledgeable on PC, knowing that patients are living longer (English, 2015). Palliative care is necessary for the elderly population as they tend to have life-altering diseases that require symptom management (English, 2015). At least one chronic illness affects 80% of the elderly population (“Healthy Aging Facts,” 2018). The Centers for Disease Control and Prevention (CDC; 2017) report, the average age of death is 78.6. A total of 70% of deaths occur after the age of 65 (Valente, 2019). These statistics support the need for clinicians to be aware of this particular population of patients that may need PC.

Palliative care assists in planning for end of life care, which involves planning for how the individual wants to die (English, 2015). Addressing patient choices early on in their disease improve the patient’s quality of life (English, 2015). Gorina, Pratt, Kramarow, and Elgaddal (2015), report that 80% of Americans would prefer to die at home, but most death occurs within the acute care setting. Advance directives are essential as they let clinicians know patient choices but, Dobbins (2016) report that the advance directive seldom gets completed as patients lack knowledge of the form. It is crucial that clinicians are aware of patient choices for end of life early in a patient disease state to avoid unnecessary treatment.

Palliative care offers an extra layer of support to those that are dealing with issues that are difficult psychologically and physiologically (National Coalition for Hospice and Palliative Care, 2018). Psychological assistance in palliative care involves spiritual and emotional support, which is vital for those dealing with life-altering illnesses (Dobbins, 2016). Psychological support for patients may require the use of a therapist, which may be necessary for the PC population (Ramanayake, Dilanka, & Premasasiri, 2016).

A vast majority of patients can utilize palliative care services due to the type of service that it offers. Those that are dealing with chronic diseases and whose health is declining will require support that may not be given by the treating clinician. It is imperative that clinicians incorporate PC into their practice or provide a referral for patients within the PC population to let them know that it is an option.

Effect on the Hospital

Hospitals are utilized for multiple purposes, and sometimes they are misused by patients due to lack of health care access or simply unaware of their options. In addition, the misuse of hospital services is often intensified when clinician do not refer to appropriate services to prevent readmission. One of these services is PC, which can provide supportive care for a chronically ill patient and their family. Hospitals need to expand and utilize PC services in order to provide better support for patients and families and to decrease unnecessary use of the emergency department and critical care units and improve hospital readmission. Palliative care services improve the quality of life of patients and their families, helps to decrease cost, and prevent wasted resources.

Palliative care services can be delivered on an outpatient basis or in the home, which would have a positive impact on the hospital (National Coalition for Hospice and Palliative Care, 2018). Sun, Karaca, and Wong (2018), surveyed 100,000 patients that are 65 and older, found that 56,803 of them visit the emergency room frequently. In the National Health Interview Survey (NHIS) conducted with 25,593 Medicare participants found that readmission rates among the elderly with chronic illnesses were 17.3% over the course of one year (Gorina et al., 2015). The elderly tend to be the highest population being seen in the emergency department (ED)

because they tend to be affected with chronic illnesses that require acute symptom management. It is estimated that 60% of Americans die in the hospital and of that 20% are in the intensive care unit (Fay, 2019). Those that are elderly tend to have serious illnesses that cannot be cared for at home and some require long term care. Patients in long term care have higher readmission rates which has an impact on hospital reimbursement (Dobbins, 2016).

Families and patients are sometimes not aware that life-saving measures do not improve quality of life (Dobbins, 2016). The advancement in medical science has improved life expectancy (Dobbins, 2016). The use of respiratory ventilators or percutaneous endoscopic gastrostomy (PEG) tubes which are used in situations where the person is at a stage of their disease where they are not able to breathe on their own or have dysphagia can be dangerous depending on the prognosis (Dobbins, 2016). The used of a PEG tube does not decrease the risk of aspiration for patients, improve mortality rate, or aid in wound healing (Dobbins, 2016). Ventilator usage in those that are cognitively impaired can cause harm due to patients pulling at equipment (Dobbins, 2016). In those that are confused, mechanical, or physical restraints that are used may cause unnecessary side effects (Dobbins, 2016). Overall the quality of life with the use of life-saving measures in certain stages of the disease processes may be futile and lead to other issues (Dobbins, 2016). Lifesaving treatment choices such as PEG tubes and ventilators can be made at the start of an illness which can prevent unnecessary usage of these types of equipment if its ever needed during the disease process.

Hospital cost is an aspect of PC that would be positively affected if more of the elderly with end-stage disease were referred appropriately. Those that are in PC are educated on their disease and prognosis, which can decrease unnecessary trips to the hospital. The cost of care for

those receiving palliative care is estimated to be half of the cost for similar patients not receiving Palliative Care (Ollive, 2017). Patients not receiving palliative care services for their life-limiting chronic illness are often not aware that there are supportive treatments outpatient for symptom management, and that death is a natural process that must happen (WHO, 2019). “Medicare saves \$6,430 for each person enrolled in hospice from 15-30 days, and \$940 million a year for those that decide to forego treatments,” (LaPonsie, 2018, para.13). Pyrillis (2019), report patients that choose palliative care save \$3,237 in medical care per hospital admission. The American Association of Critical Care Nurses (2019), report that 6 billion dollars could be saved yearly in healthcare costs if palliative care was used effectively. Considering these figures, it would be practical for clinicians to initiate these discussions with their clientele. Clinicians willingness to refer patients appropriate for palliative care services is an important first step to decrease rising healthcare cost and improve the patient’s quality of life.

Palliative care is beneficial as there is value in both patient satisfaction and monetary savings. The elderly population rate is rising as science is improving treatment options. Increases in the aging populace also come with chronic illnesses, and many of these individuals would benefit from the services that palliative care provides (Ramanayake, Dilanka, & Premasasiri, 2016). Palliative care services include educating patients on treatment options and allow them to make decisions that align with their beliefs and values (Ramanayake, Dilanka, & Premasasiri, 2016).

Education of Nurse Practitioners

Nurse practitioners are being used in multiple health care settings, and their education should correspond to the needs of the population they will likely encounter. Clinician education

provides basic knowledge on different topics that are deemed essential. Clinician education on PC is an issue due to lack of coverage in their curriculum, staff that is ill-prepared to discuss the topic, and lack of comfort.

Clinicians have a difficult time with the topic of PC as mention by Lee, Carlon, Ramsay, and Thirukkumaran (2017), which could be due to the teaching styles of their curriculum that tend to avoid the topic and assume that it is being covered in other aspects of education. Nurse Practitioners can provide PC services due to their empathetic nature and medical knowledge, but their education fails to cover the subject (McRee and Reed, 2016). The Institute of Medicine (2014) recommends that organizations provide education on palliative care as there are patients that require the service.

Lack of professors being ready to provide education on palliative care is a problem. Jensen-Seaman and Herbert (2016) surveyed deans of NP programs and found staff was not knowledgeable on PC, which makes it difficult for it to be embedded in their courses. Medical students complained that palliative care was not being taught by those that provide the service (Head et al., 2016). Nurse practitioners are relying on work experience with PC teams because the topic is missing in their curriculum McRee and Reed (2016).

Discussing palliative care may be an issue for some due to the sensitivity of the subject. Clinicians reported not filling out advance directive forms with patients because they were uncomfortable discussing difficult prognosis (Dobbins, 2016). Student nurses with the implementation of education on PC found they were more comfortable with providing PC (Dimoula et al., 2019). Lack of experience with dying patients affect the attitudes of clinicians

(Chiu et al., 2015). Clinicians comfort level with palliative care aligns with their exposure and education.

It is imperative that the curriculum of clinicians cover the topics that will be experienced in practice. Assessments of medical school and the nurse practitioner education programs found that their curriculums frequently do not emphasize PC which makes it difficult in caring for the PC population (Chiu et al., 2015; Jensen-Seaman, & Herbert, 2016). Educational programs should include PC topics in their curriculum to improve clinicians comfort level on the subject.

Needs Assessment

Palliative care is an important topic, as many people are seriously ill. The hope is for supportive treatments that are offered by palliative care clinicians are increased. Clinicians are expected to know this additive treatment plan for their patients. Palliative care because of its approach to medicine has a positive impact on healthcare globally, nationally, statewide, and at the local level.

Around the world palliative care is being used due to its holistic approach, but lack of access is an issue. The World Health Organization [WHO] (2018) reports, there is a growing need for palliative care to be widely used around the globe as there is a decrease in communicable disease and people are living longer. Globally, only 14% of 40 million people that need palliative care receive the service (WHO, 2018). The World Health Organization (2018) notes that the lack of trained clinicians on PC as the cause for it not being provided to seriously ill patients. A significant aspect of palliative care is symptom management, and many countries have limited access to pain medications or frown on usage of those drugs (WHO, 2018). The World Health Organization (2018) recommends that the need for PC to be integrated

nationally in healthcare systems is necessary regardless of social or economic status, and medications need to be available for symptom management.

Healthcare policies in the United States note the benefits of palliative care. Donlon, Purlington and William (2018) state that “40 million Americans have a serious illness” (p. 1), and many of those individuals may benefit from the services of palliative care. Many states are providing funding, educating the public, regulating care, and ensuring clinicians can provide PC via continuing education and training (Donlon et al., 2018). States policies are providing reimbursement for palliative care due to its effect on decreasing medical cost (Donlon et al., 2018). Palliative care has a positive effect on medical resources, and states are noting the benefit of ensuring that the service has proper funding (Donlon et al., 2018). There are many states taking initiatives to ensure palliative care is provided for example: Arizona and California reimburse for services via Medicaid; New York and Texas include PC as part of quality improvement into their delivery system reform incentive payment program; continuing education is encourage in many states like New Jersey, California, Rhode Island and Massachusetts, and 29 states are noting the benefits of PC for cancer patients and encourage the use of the service in those patients (Donlon et al., 2018).

Locally in New Jersey (NJ), palliative care services are provided in healthcare institutions, and clinicians have to be ready to discuss and refer to these services. Many colleges in New Jersey cover an array of trades and career majors. There are 47, four-year colleges/university in New Jersey (New Jersey Colleges and Universities, 2019). In New Jersey, there are 11 schools that offer a degree that would provide eligibility for national board certification as a nurse practitioner to be eligible for advanced practice licensing in the state. Of

the few schools that offer a graduate degree with a concentration in advanced practice nursing, only two school list courses which includes caring for those at end of life.

Palliative care service is recommended to be offered as an additive treatment to those that are seriously ill. This approach to medicine has a positive impact on patients and improves their quality of life. It is vital that clinicians are informed of PC benefits and incorporate the service into their overall plan for patients.

SWOT Analysis

Strength, weakness, opportunities, and threats (SWOT) analysis was conducted for this project. A SWOT analysis evaluates a project or business plan to evaluate factors that may influence its effectiveness (Teoli & An, 2019). Strength and weakness of a project allow the investigator to analyze internal issues; opportunities and threats examined external factors of the project being implemented (Teoli & An, 2019). SWOT is essential as it permits the investigator to contemplate the chances of the project's success or failure (Teoli & An, 2019).

Strength. This project had several strengths that should have facilitated its success. The setting of the project is a large university that is well known for its nurse practitioner programs; U.S. News and World Report (2019) has ranked the facility's DNP program 19, and MSN program 21. The setting for this project is well known for research and is a member of the Association of American Universities (AAU) and the Big Ten Academic Alliance which are first-tier research universities recognized for their quality and scope of their research and academic programs (Rutgers University, 2019a). Palliative care is an interesting topic. Participants in this project may enjoy debating treatment plan of care for a PC patient.

Weakness. While this project possessed many strengths, there were some weaknesses that hindered the progress of the study. Project success is dependent on student participants and honest feedback. Professors had to be willing to allow for advertisement of this project to their students. In addition, palliative care is currently in the nascent stages of being incorporated into the primary academic curriculum at the university. Therefore, another challenge to this project is the potential for misalignment of project implementation and the university ability to fully incorporate palliative care into their curriculum.

Opportunities. The opportunities for this project are worth mentioning as many organization comments on the importance of clinicians being well versed on the topic. Organizations such as IOM (2014) is vocal on the importance of palliative care appropriately being provided to patients. Healthy People 2020 acknowledge PC as a topic that should be paid attention to in the next ten years (Office of Disease Prevention and Health Promotion [ODPHP], 2014). The American Association of Retired Persons (AARP), which provides support to the elderly believes Medicare should provide greater access to PC beyond hospice and make individuals aware of this service (English 2015). Nurse practitioners are being used in many aspects of healthcare and should have a level of knowledge on this topic to provide care that appears seamless to their patients (Mcree & Reed, 2016). Nurses are naturally empathetic; palliative care requires a great deal of sensitivity and understanding towards patients and families (Mcree and Reed, 2016).

Threats. As there are opportunities that should have ensured this project success there were threats against the implementation of the study. The focus of palliative care is concentrating on symptom management, which includes pain management. Prescribing narcotics may be an issue for clinicians as nationally the focus is to decrease prescriptions of

narcotics (National Institute on Drug Abuse, 2019). Participants may not believe in the importance of this project or agree with the ideals of palliative care. The threats against this project are a concern, but the benefits to the participants will be increased understanding and knowledge regarding palliative care services.

Problem Statement/Clinical Question

New nurse practitioners are often thrust into their role with fundamental training. New NPs rely heavily on the didactic and clinical experience once they are in practice. Palliative care is a treatment plan that should be used more by clinicians. Palliative care can be used as extra support for many patients that are dealing with life-altering illnesses for symptom management, spiritual assistance, diagnosis education, medication management, and EOL management (National Coalition for Hospice and Palliative Care, 2018). Re-admission rates is an issue for the healthcare system among those with chronic illnesses as mentioned by Gorina et al. (2015), and the question becomes would proper referral or imbedding palliative care to practice make a difference for these patients. The clinicians that are the primary focus for this project are BSN to DNP students. Nurse practitioners are being called to bridge the gap in many facets of healthcare and palliative care is no different. The clinical question for this project is: Among BSN-DNP students will an educational program on palliative care plans of care and symptom management have an improvement in the nurses' knowledge and elicit a change in practice of palliative care planning for seriously ill patients and families?

Aims & Objectives

Nurse practitioners are being used in multiple types of settings. Palliative care is useful in many patients' end-stage diseases states, and NPs increased knowledge on symptom

management will be helpful in practice. This project aim was to assess BSN to DNP student knowledge about palliative care services and plan of care, allow them to gain an understanding of the subject, and assess practice change. The objectives for this project were:

- Assess student NP knowledge on palliative care
- Assess student NP ability to formulate plans of care for palliative care patients
- Provide education to NP students
- Provide training on plans of care for a palliative care population
- Assess knowledge change and retention on palliative care
- Assess practice change in a plan of care for a palliative care patient with the use of a palliative case study

Review of Literature

The review of literature for this project took on a search of several databases which included Medline (Ovid/EBSCOhost), CINAHL, Joanna Briggs, PubMed, and Scopus. A list of synonyms was derived from the keywords of the topic. The keywords used: *nurse practitioner, clinicians, medical students, nurses, knowledge, education, training, curriculum, experience, proficiency, comprehension, clinical experience, attitudes, comfort, viewpoint, perspective, opinion, feelings, emotion, palliative care, comfort care, end of life care, hospice, end-stage, death, dying, and terminal care*. After putting together, a list of keywords related to the topic, Mesh terms were used to conduct the search. A total of 25 articles were found related to the topic. After the articles were read in full, ten were found to be closely aligned with the topic of

the project. The articles were eliminated if they were not written in English, non-human subjects, or if they did not include palliative care as part of EOL care. The clinical practice guidelines for quality of palliative care from the National Coalition for Hospice and Palliative care, (2018) was reviewed. The articles and the palliative care practice guideline were then appraised using the John Hopkins tool for research and non-research studies, please see tool use in Appendix A and refer to Appendix B for the table of evidence. The overall themes of the research studies were lack of education, training, communication skills, and overall attitude of the clinician.

Lack of Education

Lack of palliative care content in clinicians' curriculums is an overall theme addressed in the literature as a barrier for the additive treatment not being used by clinicians to manage patients. Palliative care education should begin at the start of formal career education as reported in a study by Dimoula et al. (2019) which examined undergraduate nursing students and found that they lack knowledge on palliative care. The subject is under-represented in nursing curriculums as well as those that are attaining advanced degrees. Palliative care education is lacking in nurses, NPs and medical students' curriculums which is unfortunate for the PC population.

Jensen-Seaman and Herbert (2016) surveyed 101 deans in which 84% of respondents, acknowledge the importance of being well versed on the topic of palliative care but due to circumstances such as faculty experience, interest on the topic and scheduling conflicts make it difficult to include EOL topic in their program. Jensen-Seaman and Herbert (2016) found through their research that 64% of NP programs embedded EOL topic into their course work,

and 35% of the programs offered clinical experience in palliative care. Jensen-Seaman and Herbert (2016) reported, 46% of the deans suggested that their curriculum was already overwhelming with topics that needed to be addressed. Professors being knowledgeable on the topic is mention in the research as a reason for lack of inclusion. Jensen-Seaman and Herbert (2016) reported that instructors are not prepared to provide the education which will hinder the next generation of nurse practitioners. Palliative care should be included in NPs curriculum but due to unprepared staff and scheduling the topic is not included.

Palliative care is also lacking in medical students' education. Chiu et al. (2015) noted there is a need for formal education on palliative care but an ill-prepared faculty delays progression on the subject being taught. Chiu et al. (2015) noted in their research of medical students that education on palliative care was missing as part of their training and due to an aging population inclusion of the subject is important. Palliative care should be required as part of medical students' education which will allow them to be comfortable in providing the service to their patient population.

Training

Training of clinicians concerning palliative care is essential as America has an aging population; those 65 and older account for 13% of the population, and that number will multiply over the next few years as reported in Jensen-Seaman and Hebert (2016). Patients with serious illnesses, especially cancer, have an improvement in quality care with new integration of PC (Dyar, Lesperance, Shannon, Sloan, & Colon-Otero, 2012). Palliative care includes planning for end of life topic such as resuscitation status. Clinicians being well versed on having resuscitation status conversation is important (Schoonover, Herber, Heusinkvelt, Yadav, and Burton, 2018).

Schoonover et al. (2018) found that the use of PowerPoint presentation can be used to improve code status discussion with their patients; 89% of participants on their project started to have this difficult conversation once this was implemented because they felt more comfortable. The use of PowerPoint is a tool that can easily be used to educate clinicians on palliative care.

The used of didactics, role play, and clinical experience can be used to improve compassion for those that require palliative care as reported by Shih et al. (2012) which found an improvement within medical students of 84% on knowledge and importance of this service. A similar study was done with NPs by Kriebel-Gasparro and Doll-Shaw (2017) which incorporated one day of didactic and one day of clinical experience found that post implementation there was a double increase in test score. Long et al. (2016) noted that the use of a workshop on palliative care could be used to improve pessimistic attitudes among clinicians. There are many tools that can be used to teach on PC.

Training for both medical students and NPs include simulation teaching. This type of tool can be used in many aspects of healthcare to teach new skills. Researchers Lewis, Reid, McLernon, Ingham, and Traynor (2016) did simulations with medical students and nurses on EOL care and reported positive feedback from the participants. Lewis et al. (2016) noted that post-test scores improved, and these clinicians felt more comfortable with providing EOL care. Simulation allows participants to get real life experiences and can be used to teach EOL care.

Communication

Communication skills of clinicians regarding EOL care is a critical aspect of being able to provide effective PC. It is imperative that clinicians have good conversation skills that allow patients to be able to understand their diagnosis and options for EOL. Dyar et al. (2012) reported

a barrier of clinician not discussing palliative care is not wanting patients to give up hope that current treatment is futile. Dyar et al. (2012) ended their study early due to the positive effect they noted among their population of cancer patients wanting end of life care topics being included as part of their follow up visits. Communication of end of life choices was found to be essential in metastatic cancer patients because it allows them to make choices relating to how they preferred to be treated once they decide to end treatment or that they feel a need for extra support while receiving treatment (Dyar et al., 2012). Good communication skill is essential for PC discussion.

Clinicians can use assistive tools to guide them in palliative care communications. The tool CARES which is an acronym that was “organized based upon the common symptom management needs of the dying including comfort, airway, restlessness/delirium, emotional and spiritual/support/self-care,” (Stacy, Magdic, Rosenzweig, Freeman, and Verosky, 2019, p.1). The CARES tool used by nurses when communicating to patients and their families was found to be helpful; and families/patients’ perception of care improved (Stacy et al., 2019). Tools such as CARES allow for both patients and their families to understand the different sign and symptoms that are related to death, which decreased their anxiety (Stacy et al., 2019). Communication tools can be a guide for clinicals to assist in having PC conversation.

Attitude of Clinician

National Coalition for Hospice and Palliative Care (2018), stresses the importance of clinicians being able to provide adequate palliative care. Clinicians have to be open to providing the service to their clients as that skill is needed in many patients’ experience. The guideline provides clinicians a tool that can be used in dealing with those that are seriously ill, and PC

services will aid in their quality of life. Clinicians perspective on PC is necessary for ensuring that patients are being provided the service if needed.

Experience of new clinicians is a barrier that keeps them from discussing EOL topics (Long et al., 2016). Long et al. (2016) in their research on pessimism among clinicians on the topic of palliative care found that culture and their strong will for good outcomes make it difficult for them to have EOL conversation. Long et al. (2016) noted that with increased exposure to those at the end of life improves clinicians' attitude. Whereas, Dimoula et al. (2019) did a study with mature undergraduate nurses who were found to have positive attitudes in dealing with those at the end of life. Confidence on the subject of PC improve attitude of clinicians.

Discussion of Review of Literature

Organizations such as the Institute of Medicine (IOM) (2014) report stresses the importance of having clinicians be knowledgeable in PC. Schoonover et al. (2018), Kriebel-Gasparro and Doll-Shaw (2017), Shih et al. (2012), Dimoula et al. (2019), and Lewis et al. (2016) noted that when education and training are provided to clinicians, they are more comfortable using PC in clinical practice. There are many studies that examined the need for palliative care content in medical student education; however, the need for palliative care education in NP coursework is less documented. McRee and Reed (2016) noted that NPs could be effective at providing PC as most students who choose the profession already possess the quality of compassion. Nurse Practitioners have the knowledge and training to provide in many aspects of healthcare, and their education should be a reflection of what they can do in practice (McRee & Reed, 2016). Jensen-Seaman and Herbert (2016) noted that deans of NP programs

know it is essential to be knowledgeable on the subject of PC but find it is difficult to include this content due to an already full curriculum. Clinicians that are already in practice can use evidence-based guidelines that are available to increase their knowledge in PC such as the Clinical Practice Guidelines for Quality of Palliative Care (2018). Educational exposure to palliative care is beneficial, as stated in research by Jensen-Seaman and Herbert (2016). Education and experience have been shown to improve the knowledge base of clinicians; therefore, it is vital to examine NPs knowledge base on PC and allow exposure to PC via different streams of learning.

Theoretical Framework

Research framework help guide the study and allows the investigator to know the process of how the information is disseminated. The KTA model use seven steps to improve knowledge on a topic (White, Dudley-Brown, & Terhaar, 2016). The model starts with identifying a problem to be addressed, provide knowledge that can be applied to practice, identify barriers, then implement a plan for change, and evaluate the new idea learned (White et al., 2016). This model allows for an insight that is gained on the subject to be added to what is already known and transformed at each step of the process. The KTA model allows the investigator to change ideas and format based on feedbacks. The KTA model is used to investigate the topic of palliative care among BSN to DNP students and their ability to provide this service. This model is appropriate for this type of project as it allows for knowledge to be gained and used by the clinician, as well as facilitate an effortless application to practice.

The Framework/Project

This project used the KTA model to evaluate BSN to DNP students and their comfort level with providing palliative care. The KTA model allows for an investigator to be able to add

information to a topic from what is already known and disseminate this information to those that it benefits, in this project it was student NPs (White et al., 2016). The first phase of this project assessed these student's knowledge of palliative care, which is the identification aspect of the KTA model. The next phase provided knowledge that will be gained via an education tool and the use of case study allow them to think of ways they can use PC in practice. This phase is the knowledge section of the KTA model. The role of the education tools was to provide key elements that can be used during their practice when dealing with those that would benefit from palliative care. After the education is implemented a post-survey is conducted, and that is the assessment part of the KTA model. The survey and case study aspect of the project allowed the investigator to assess common obstacles for new NPs on this subject, which is another feature of the KTA model. One month after the knowledge piece of the project was implemented participants received a post-test and the case study again to evaluate the knowledge that was gained which evaluated for retention. The final phase of this project is to disseminate this project in hopes that it can be used for larger research. The project aim was to create knowledge, process it, formulate ideas, and evoke a practice change that can be used in practice. Please see Appendix C for a visual demonstration of how the KTA model is utilized in this project.

The KTA model provide a framework for knowledge to be gain on the topic of palliative care. The aim is for these NP students to build on this knowledge as they gain more experience. The project was a start for these students to get an understanding of the topic and use as part of treatment plans when appropriate.

Methodology

Design

The project employed a descriptive design using pre-test and post-test surveys to evaluate the effectiveness of the educational program on improving nurse practitioner students' knowledge on PC and incorporating PC into a plan of care for a patient with a life-limiting illness. The project involved the implementation of an educational program to NP students. After the educational session on PC and discussion of plans of care for patients with a life-limiting illness, a post-test was given to assess change in knowledge, and a patient case study in which the NP student developed a plan of care. The case studies that was discussed and used to assess for change in knowledge had the common theme of shortness of breath. The educational program included a PowerPoint presentation and discussion on palliative care. Please see Appendix D for PowerPoint presentation slides.

The educational program and case study presented to the participants used PowerPoint slides in a room within the educational facility. The program was implemented during Fall 2019 in the Adult-Gerontology Primary Care Practicum course with permission from professors during allotted dates and times. The students were given a choice if they would like to participate in the program and it did not affect their grade for the class. A follow up post-test took place a month after implementation to evaluate for retention.

Evaluation of the educational program performed using the Palliative Care Quiz for Nursing (PCQN) and case study plan of care to determine the project's effectiveness. A second post-test was conducted a month after the implementation of the educational program to assess retention of knowledge and change in plan of care for a palliative care case study. Please see

Appendix E for permission to use PCQN test, Appendix F for the PCQN quiz, and case studies plan of care in Appendix G.

Setting

The setting for this project was at a large public University, nationally known for its NP programs. In 2019 the university had 800 students attaining graduate degrees in nursing, with 315 attaining master's degrees and 393 attaining doctoral degrees (Rutgers University, 2019b). The university is nationally known as a tier-one research institution and highly ranked nationally for the quality of the graduate programs.

Study Population

The population for this project is BSN to DNP students. The participants were registered nurses taking Adult-Gerontology Primary Care Theory 1 didactic/practicum courses. The inclusion criteria were RN students enrolled in an advanced practice graduate program and were 18 years or older. The participants that were targeted were those that were in the clinical practicum courses of the DNP program. There were no students excluded that met inclusion criteria.

The goal was to obtain 60 subjects to provide reliable descriptive results. According to Hertzog (2016), 35 participants should be the minimum sample size when conducting a pilot study; however, 35-40 participants per group is the preferable size when estimating test-retest reliability of a pilot project.

Subject Recruitment

After obtaining permission from the Rutgers University IRB, the NP student participants were recruited from the first level didactic and clinical courses in the Adult and Gerontology Primary Care Theory 1 that is during Fall 2019 semester. The professor for this course was contacted, and permission requested to introduce the project to their class, and to recruit subjects. The co-investigator for this project developed a handout that contained the purpose of the study, the objectives, and the significance of the study. The handout was used to invite the NP students to take part in the educational program. The co-investigator attended class sessions to explain the project, and recruit subjects. Please see Appendix H for recruitment script used and Appendix I sample handout.

Consent

The consent for this project was attained before the start of the program. The consent was completed via paper. The consent provided an overall explanation of the project purpose. The consent stated the length of the project, data being collected, and explanation of risk and benefits, and will be reviewed with the participants. The participants were notified that information gathered is confidential, and consent to participate is voluntary. After signing the consent, if an individual change his or her mind they can withdraw from participating in the study at any time and without any penalty. Please see the sample consent form in Appendix J.

Risks/Harms

Due to the indirect impact of this project on nurse practitioner students and the benefit of knowledge gained from attending this educational program and case study discussion, there were insignificant perceived harm or risks to participants. The questionnaires and case study may

have cause participants to think about their personal feelings on palliative care. Information to the Rutgers University-Newark Campus Awareness Response and Education (CARE) team via phone at 973-353-5063, located at Paul Robeson Campus Center, 350 Dr. Martin Luther King Jr. Boulevard, Newark, New Jersey 07102, room 302 was provided to participants if they felt they needed counseling. Participants were made aware if there were any changes to the project that may cause harm, they can opt out of participating in the project. A master list with the participant's name and contact information was developed, and each participant were given a number. This number was recorded on all documents for this project. The master list was only reviewed by the co-investigator and kept in a locked file cabinet in the office of the co-investigator. The master list of names link to the participant number was destroyed at the end of data collection. The aggregated data will be destroyed in three years based on Rutgers School of Nursing policy. Please see Appendix K for master list sample collection sheet.

Subject Costs and Compensation

This project did not have any financial impact on participants. The participants did not receive monetary compensation for their participation in the project; however, refreshment was provided at the educational sessions.

Study Interventions

This research project was completed at a public University with participants recruited from the Adult-Gerontology Primary Care Theory/Practicum 1 courses. These classes were chosen as they were taken by BSN to DNP students that were starting their first clinical practicum course. The questionnaire used was the Palliative Care Quiz for Nursing (PCQN) and an evidence-based case study of a patient with a life-limiting illness adapted from Campbell

(2012) was employed to evaluate for a change in knowledge about palliative care and a change in practice regarding a plan of care for a patient who is palliative appropriate. A demographic profile of the participants was collected which included age, gender, area of practice, previous palliative care experience, years of RN experience, and prior palliative care education. The demographic profile, PCQN and case study plan of care was given as a pre-test after consent was attained. There was an educational PowerPoint on palliative care and the development of plan of a care for palliative patient presented. The PCQN and case study was re-administered as a post-test to assess change in knowledge and change in plans of care for a palliative care patient. After one month the second post-test consisting of the PCQN and the palliative care case study was given to assess for retention of knowledge and change in plans of care for a palliative patient. Please see Appendix L for sample demographic data to be collected.

Outcomes Measured

The demographic profile was used to describe the study population. The questionnaire used was the Palliative Care Quiz for Nursing (PCQN) from Ross, McDonald, and Mc Guinness (1996). The PCQN allowed participants to test their understanding of palliative care. This tool has been tested for validity and reliability. Chover-Sierra, Martinez-Sabater, and Lapena-Monux (2017) noted Cronbach's alpha coefficient of 0.67 in their testing of nurses. The PCQN is a 20-item quiz that assess the nurse's knowledge of palliative care. The responses are true/false/don't know responses. The PCQN was used for all three pre and post-tests, and comparison made between them. The participant were asked to develop a plan of care for a palliative care patient case study by listing interventions appropriate to manage the symptoms presented.

Project Timeline

The project timeline was 8 months, May 2019 to December 2019. The draft of the proposal was done from May to July 2019. The project proposal presentation took place in July 2019. The project was submitted to IRB for review July 2019. The implementation of this project took place in the Fall semester of 2019. The data collected was analyzed in November 2019. The final writing took place December 2019. The final presentation took place in December 2019. The project will be disseminated for publication post final approval to nursing journals, submitted for conferences, and will be presented at Rutgers poster day. Please see Appendix M for the sample timeline.

Resources Needed

The costs associated with this project was the sole responsibility of the co-principal investigator. The cost of this project included educational handouts, materials for the educational program, statistician consultant, refreshments, and disseminating tools. Please see the anticipated budget sample located in Appendix N.

Evaluation Plan

Data obtained from the PCQN pre-test and post-tests was compared to evaluate for a change in knowledge on palliative care after the delivery of an educational program. The case study presented was a palliative care patient with specific symptoms that need management. The participants were asked to list specific care interventions for a patient case study, and the responses compared for a change in care after the delivery of the educational program on PC symptom management plans of care.

The expectation was for the teaching tool and the use of the case study to evoke a change in knowledge and practice for palliative care patients. The hope was to find a statistical

difference in the post-survey results. The expectation was to get the NP students to start using palliative care as part of treatment options in the clinical setting.

Data Analysis

The software that was used to analyze the data from the pre and post-tests is SPSS Version 25. Categorical data was obtained from the demographic survey to describe the population. A descriptive bivariate analysis of the data obtained from the PCQN pre and post-tests was performed. A Friedman test was used to analyze change over time with the pre and post-tests, and the Wilcoxon test was done as a post hoc test to look for change within the pre and post-tests. The case study was analyzed by evaluating the number of items listed in the plan of care that are appropriate symptom management for the palliative patient presented in the case study. The pre-test/case study, as well as both post-test/case study were compared for changes in the plan of care over time.

Maintenance & Security

The data that was collected during this project was secured using a lock file cabinet in the office of the co-investigator, which was only accessible by the co-investigator. These files were stored in a lockbox in an office at 702 Essex Avenue, Linden, New Jersey 07036 with access only by the co-PI. The files that were secured are paper copies of consent, project surveys, questionnaires, and case study responses. A master list with participants' names and assigned number, and any data obtained from additional sources relevant to this project was secured in a lock file cabinet. The computer that was used to import data is password protected. The master list of names and participant number was destroyed at the end of data collection. The aggregated data will be destroyed in three years as per Rutgers University School of Nursing policy.

Results

This project collected demographic data, utilized the palliative care quiz for nursing (PCQN) to test for knowledge on the subject and asked for participants to develop a plan of care for a palliative care patient. The project was separated into three parts. The first section of the project involved collecting consent for the project, obtaining demographic data, and administration of the pre-intervention PCQN, and pre-intervention plan of care for a palliative care patient case. The second aspect of the project involved a PowerPoint education module on palliative care, and discussion of a plan of care for a palliative care patient. Immediately following the education module, the PCQN tool and development of the plan of care of a palliative care patient case was administered to assess for a change in knowledge. A month after the intervention, the PCQN tool and the development of a plan of care of a palliative care patient case was administered to assess for retention of knowledge.

Demographics

A total of 35 participants were recruited for this study from an advanced practice graduate nursing class. The participants were all Registered Nurses and were taking their first clinical practicum course. Of the 35 participants who completed the first section of this study, only 17 participants completed all three sections of this study. The demographic data collected included age, gender, area of practice, years in practice, previous palliative care education, and previous palliative care experience. The 17 participants were all female; 59% made up the age group 25 to 30; with 47% of the group with 1 to 5 years of work experience; 35% work in a medical-surgical unit; 70% had previous palliative care education; and 53% did not have previous education on palliative care. See table 1 for the participants demographics.

Table 1

Participants Demographics

Characteristics	n = 17	%
Age		
18-24 years	1	5.6
25-30 years	10	58.8
31-35 years	4	23.5
36-40 years	1	5.6
41-45 years	0	0
46-55 years	0	0
56+	1	5.6
Gender		
Male	0	
Female	17	100
Area of practice		
Medical-surgical	6	35.3
Critical care	3	17.6
Oncology	2	11.8
Cardiac telemetry	2	11.8
Obstetrics and gynecology	0	0

Long term care	0	0
Outpatient	2	11.8
Other	2	11.8
Previous palliative care experience		
Yes	8	47.1
No	9	52.9
Previous palliative care education		
Yes	12	70.1
No	5	29.4
Years of registered nurse experience		
1-5 years	8	47.1
6-10 years	7	41.2
10-15 years	1	5.9
16+	1	5.9

Palliative Care Quiz for Nursing

The palliative care quiz for nursing (PCQN) was analyzed with the assistance of a statistician and the use of SPSS Version 25. The (PCQN) comprised of 20 questions that test knowledge of palliative care. The PCQN used true, false, and don't know responses. There was a total of 17 participants who completed the pre-survey, post-test 1, and post-test 2 and were evaluated for an increase of knowledge and retention of knowledge regarding palliative care. A mean and standard deviation was calculated to show differences between pretest, post-test 1, and post-test 2. The pretest total score ($M = 0.84$, $SD = 0.207$); post-test 1 total score (0.83 , $SD = 0.169$); post-test 2 total score ($M = 0.73$, $SD = 0.198$). Table 2 displays the descriptive statistics of the PCQN test results.

Table 2

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	17	0	1	.84	.207
Posttest 1	17	0	1	.83	.169
Posttest 2	17	0	1	.73	.198
Valid N	17				

The descriptive statistic table above shows the participants in pretest ($M = 0.84$) have the highest mean score, while participants response in post-test 2 ($M = 0.73$) have the lowest. On the other hand, the standard deviation of response in post-test 1 ($SD = 0.169$) has more consistency in the study, while the response of participants in pretest ($SD = 0.207$) have the lowest consistency in the study which means the result from the pretest varied and are not consistent.

Table 3

Friedman Rank Test

Ranks	
	Mean Rank
Pretest	2.15
Post-test 1	2.26
Post-test 2	1.59

Table 4

Friedman Test Statistics

Test Statistics	
N	17
Chi-Square	5.033
df	2
Asymp. Sig.	.081

A Friedman test was done to assess for changes between the three PCQN test. The mean rank showed there was a change in knowledge given the post-test 1 result of 2.26. However, the chi-square has a value of 5.033 and a p-value of 0.081 and is not statistically significant.

Table 5

Wilcoxon Rank Test

		Ranks		
		N	Mean Rank	Sum of Ranks
Post-test 1 - Pretest	Negative Ranks	7 ^a	9.00	63.00
	Positive Ranks	8 ^b	7.13	57.00
	Ties	2 ^c		
	Total	17		
Post-test 2 – Post-test 1	Negative Ranks	11 ^d	7.82	86.00
	Positive Ranks	3 ^e	6.33	19.00
	Ties	3 ^f		
	Total	17		
Pretest – Post-test 2	Negative Ranks	4 ^g	7.50	30.00
	Positive Ranks	10 ^h	7.50	75.00
	Ties	3 ⁱ		
	Total	17		

Table 6

Wilcoxon Test Statistic

	Test Statistics		
	Post-test 1- Pretest	Post-test 2- Posttest 1	Pretest - Posttest 2
Z	-.171 ^b	-2.111 ^b	-1.416 ^c
Asymp. Sig. (2-tailed)	.864	.035	.157

The Wilcoxon rank table provides some interesting data on the comparison of participants within pretest, post-test 1, and post-test 2. In the rank table above the pretest and post-test 1 have positive rank score of 8 to negative rank score of 7 and ties of 2. The post-test 1 and post-test 2 have massive difference in positive to negative rank scores of 3 to 11 respectively with 3 ties. The post-test 2 and pretest rank test have great positive rank score of 10 to negative rank score of 4 and ties with 3 as well. The Wilcoxon test was done to assess for significance between the pretest, post-test 1 and post-test 2. It was concluded that no statistically significant difference was found between the pretest and post-test 1 ($p = 0.864$), and pretest and post-test 2 ($p = 0.157$). There was no improvement of knowledge found from pretest to post-test 1 and from pretest to post-test 2. However, statistically significant difference was found between post-test 1 and post-test 2 in the study ($p = 0.035$) which mean there was a loss of knowledge.

Palliative Plan of Care

The palliative plan of care was done pre, post-intervention, and one month follow up. The plan of care used a patient that was at the end stage of their disease with the common symptom of dyspnea. The plan of care used was from Cambell (2012) book, Case Studies

Palliative and End-of-Life Care. Participants needed to use key terms that would show they understand how to use palliative care for a seriously ill patient. The questions that were addressed in the palliative care plan of care were: what is the issue, what key factors should be considered, what key intervention can be used to reduce dyspnea? The participants acknowledge that family involvement was needed to assist the patient. Post the intervention the participants added the use of opioids to assist with respiratory distress in their plan of care. Post the intervention the participants were well versed on the use of non-pharmacological modalities that can be used such as ventilation and sitting the patient up. There was not much difference noted in the responses between the two posttests. The plan of care allowed for feedback to be received from the participants as to how they would care for a palliative care patient. The plan of care allowed for active learning which had an impact on the participants. See table 7 below for post education improved responses.

Table 7

Pre-Intervention Plan of Care Response

Clinical Questions	Pre - Intervention Response	Comments
What is the issue?	<ul style="list-style-type: none"> Identified the diagnoses 	<ul style="list-style-type: none"> Dyspnea
What key factors to considered?	<ul style="list-style-type: none"> Failed to identify the need of the patient 	<ul style="list-style-type: none"> Lack of referral to palliative care Multiple comment on patient living alone
What key intervention can be used to reduced dyspnea?	<ul style="list-style-type: none"> Medication management Lack of nonmedication to manage symptoms 	<ul style="list-style-type: none"> Failed to identify ways to relieve the patient symptoms by way of changing position or using extra ventilation to assist patients

Table 8

Post-Intervention Plan of Care Response

Clinical Questions	Post Education Improved Response	Comments
What is the issue?	<ul style="list-style-type: none"> • Better diagnoses 	<ul style="list-style-type: none"> • Dyspnea • “Patient continues to have progressive SOB and worsening CHF”
What key factors to considered?	<ul style="list-style-type: none"> • Needs assessment 	<ul style="list-style-type: none"> • Assess goals of care need for palliative care • “Family support” • “Patient is having more exacerbations and has minimal help at home”
What key intervention can be used to reduced dyspnea?	<ul style="list-style-type: none"> • Medical management of a palliative care patient • Non-medical management for palliative care patient 	<ul style="list-style-type: none"> • “Use of opioids” • Ensure that patient is receiving the right amount of medication • Use of ventilation to decrease symptom • “open windows” • “Sit bed up”

Table 9

1 month - Follow up Plan of Care Response

Clinical Questions	1 Month Follow up of Post Intervention Response	Comments
What is the issue?	<ul style="list-style-type: none"> • Identified the diagnoses 	<ul style="list-style-type: none"> • Dyspnea
What key factors to considered?	<ul style="list-style-type: none"> • Acknowledged the need for the patient 	<ul style="list-style-type: none"> • Palliative care • Goals of care
What key intervention can be used to reduced dyspnea?	<ul style="list-style-type: none"> • Identified appropriate treatment plan 	<ul style="list-style-type: none"> • Ensured the appropriate treatment modalities was being prescribed

Discussion

Palliative care should be an important aspect of treatment plans, especially with patients that are dealing with serious illnesses. The project purpose was to highlight palliative care planning and provide knowledge on the topic. The project was designed to allow these students to acknowledge how palliative care can be incorporated into their everyday clinical practice.

This project tests palliative care knowledge using the PCQN test. The results of the PCQN did not yield any significance. The responses from the plan of care improved from pretest to post-test 1 showing a more decisive treatment plan. The issue with this project is that it was done in several segments. Many participants failed to continue participating in the project. The number of participants that were able to complete all three aspects of the project was 17. The PCQN done prior to the intervention showed a higher mean score which could be related to most of the group having prior knowledge on the subject. The pre-PCQN done was in the beginning of these students' semester when most are excited at a fresh start and are less fatigued.

This project may have been more effective if it were done all at once. Due to time constraint the pre-test was done than the following week the education and discussion of palliative care along with the posttest was done. Participants became less interested when the project was re-introduced; if both parts were done at the same time, they would be a better sample size and results. Time placed a significant role in the implementation of this project. This study was given at the start of class for three different professors and time was limited to the need to cover required content. Students were not willing to come on non-class days or times to participate in the project. This project was considered an extra assignment for students and was not being graded, which may have played a role in lack of participation.

The result of this project did not yield any statistical significance which could be related to many factors such as student fatigue, lack of interest on the topic, being overwhelm with course work and lack of time. Lack of participation may have played a role in the result of the project, but there has been other research done that show it is important to include in student curriculums. In the study done by Shih et al. (2012) they found improvement among medical students after education on palliative care. Providing education on palliative care is an initial step, the ultimate goal is for participants to be able to identify patients that need the service and treat accordingly. Schoonover, Herber, Heusinkvelt, Yadav, and Burton, (2018) used a PowerPoint presentation to teach clinicians how to provide code status discussions and there was improvement noted from the participants. Being knowledgeable on a topic allows clinicians to be more confident to provide the treatment. Long et al. (2016) found that the attitude of clinicians improved with continue education on the topic of palliative care. The posttests responses from the plan of care showed improvement from the participants in identifying patient that need palliative care and symptom management of a palliative care patient. Hopefully the improvement noted from the plan of care responses will translate to real life scenarios.

Overall this palliative care project was not a success due to multiple issues presented. It is important that clinicians have knowledge on the topic to provide care for their patient population. The hope is that the project can be repeated in a different setting with a larger number of participants. Palliative care in clinician's curriculum is important as there are patients that require that type of care, healthcare organizations are benefitted, and insurance companies reimburse the service.

Implications

Palliative care education in the nurse practitioner curriculum is important because the population is aging. The fundamentals of palliative care are required for patients that are seriously ill. Clinicians and healthcare organizations can be reimbursed by Medicare and Medicaid if they provide advance care planning to patients. There are laws that have been adopted to encourage clinicians to provide palliative care. The implication for nurse practitioners to be well versed in palliative care is essential as patients will benefit from a multifactorial treatment plan. Overall quality of care provided in the healthcare organization improves with the addition of palliative care services for patients with a life-limiting illness and their family.

Clinical Practice

Palliative care is important in clinical practice. Patients that are dealing with end-stage diseases need extra supportive care. Palliative care provides support for patients and families during a difficult aspect of their disease state. The implications for palliative care services in clinical practice are the need for additional symptom management, mental/emotional support, and communication regarding the discussion of the patient goals of care. The use of palliative care practices is warranted for patients with life limiting or serious illness and should be reflective in all clinician's practice.

Symptoms management is a major aspect of palliative care. Common symptoms that plague patients at the end stage of their diseases are pain, nausea, fatigue, and dyspnea (Buss, Rock, & McCarthy, 2017). Clinicians being able to provide effective symptom management in their practice can improve patient quality of life (Buss, Rock, & McCarthy, 2017). Palliative

care services should be added to patients with life-limiting illness as it can extend a patient's life and improve the quality of life for patients during a difficult aspect of their illness.

Emotional support for those dealing with serious illnesses is important in clinical practice. Palliative care encompasses a patient as a whole, and most have difficulty dealing with their diagnoses that may be chronic or life threatening. Clinicians have to be able to provide psychosocial support to patients and families while delivering care. Patients and families may be emotional when given their prognosis, and clinicians need to provide an environment that allows for open communication to discuss their feelings (Fan, Lin, Hsieg, & Chang, 2017). Patients may find comfort in their spiritual beliefs when diagnosed with a serious illness and it should be encouraged by clinicians (Fan et al., 2017). Ensuring that patients with emotional health issues and their families receive support and counseling throughout their disease progression is essential.

An important aspect of palliative care is communication to ensure that the patient's goals of care are met. Patients should have an active voice in their care. Clinicians have to ensure that patients understand their treatment options and prognosis. This knowledge will help the patient reflect on what is important to them and make treatment decisions based on their own goals of care. This will improve the quality of life for the patient.

The Clinical Practice Guidelines for Quality Palliative Care by the National Coalition for Hospice and Palliative Care provides recommendations for clinicians in eight domains. The guideline recommends that there should be a team approach to caring for palliative care patients encompassing nurses, advance practice providers, social services, and chaplain (National Coalition for Hospice and Palliative Care, 2018). All team members should be well versed in palliative care to provide the best care possible. The guideline supports family involvement in

the care of the patient as well as the need for psychiatric support for patients dealing with serious illness (National Coalition for Hospice and Palliative Care, 2018). Spiritual care should be provided to patients and families if it is important to them and it is important to be mindful of patient culture as it plays a role in how patients comprehend aspects of their care (National Coalition for Hospice and Palliative Care, 2018). Advance directives should be used early on in the patient disease to allow patients to have choices in their care and the importance of providing end of life care when death is imminent (National Coalition for Hospice and Palliative Care, 2018). The clinical practice guideline provides useful information for clinicians to provide palliative care and stress the importance of being educated on the subject.

Palliative care in clinical practice is important as it allows the patient to have treatment plans that treat them psychologically, spiritually, socially, and physically. Patients that are dealing with serious illnesses need their clinicians to be able to manage all aspect of their care. Clinicians that provide patients and families palliative care throughout treatment make the disease more manageable and improves quality of life for the patient and their family.

Healthcare Policy

An important aspect of palliative care involves communication with the patient regarding the establishment of their goals of care. There are policies in the United States that encourage patients to have an advance directive. Many states have laws to encourage planning for the end of life. Palliative care encourages clinicians to discuss advance directives. In the United States, many states have instituted a version of Practitioner Orders for Life Sustaining Treatment (POLST) which has been adapted into many health care organizations. Clinicians discussing advance directives and POLST with their patients are reimbursed for this time by insurance plans. There has been advances locally and nationally for palliative care education for clinicians

and for the palliative care services to be provided to all patients who meet the criteria. The importance of clinicians being able to have an end of life conversation effectively is an essential aspect of palliative care.

The POLST form aids clinicians in discussing the end of life care options. The POLST form outlines goals of care if the patient was to get to a stage of their disease that they experience cardiac arrest, not able to breathe on their own, or dysphagia (Hickman, & Critser, 2018). The POLST form allows for clinicians to know in advance what the patient would like for cardio-pulmonary intervention, intubation, or the use of tube feedings (Hickman, & Critser, 2018). The POLST form is filled out by the physician, nurse practitioner, or physician assistant and can be used from one facility to the next (Hickman, & Critser, 2018). Many healthcare facilities have adopted the use of POLST and have policies to ensure compliance (Hickman, & Critser, 2018). The POLST is a form of advance care planning for those that are dealing with serious illness to let clinicians know patient choices if medical status worsens.

Advance care planning documentation is important for reimbursement. Physicians need to be comfortable with having end of life care conversations. End of life care conversations helps the patient to understand their options for care once they are not able to make decisions for themselves. Certain diseases do not allow patients to be mentally capable of decision making at the end stage of their illnesses, so it is essential to establish a plan of care at the beginning of diagnoses (Zeintoun, 2015). Medicare, which provides insurance coverage for the elderly, reimburse physicians and healthcare facilities for discussions of advance care planning (Zeintoun, 2015). Clinicians being able to engage in advance care planning is an important skill that will assist the entire healthcare system.

Locally in New Jersey, there is an initiative for patients to be more informed on the topic of palliative care. There has been a bipartisan bill that passed recently to increase patient access and increase the knowledge of palliative care availability (Stainton, 2019). The hope is to decrease patients suffering from pain and be able to assist with symptom management that is associated with serious illnesses (Stainton, 2019). Nationally the Palliative Care and Hospice Education and Training Act (PCHETA) was passed in 2018, which aims to increase access to palliative care (American Academy of Hospice and Palliative Medicine [AAHPM]). The goal of PCHETA is to have clinicians that are equipped to provide the service. The government has provided funding for clinician education on palliative care to be able to, assist patients during serious illness with symptom management (AAHPM). Locally and nationally, there is a push to have clinicians that are prepared to provide palliative care to their patients.

The establishment of the POLST form in many States has been a useful tool to meet the requirement for reimbursement of advance care planning. Advance care planning allows patients and families to be engaged in treatment options for their disease. Palliative care allows patients to have a realistic goal of care regarding their prognosis. The implication for the clinician regarding healthcare policy is that they have to be educated on the subject to be effectively able to provide the service.

Quality and Safety

Palliative care provides the patient support during a pivotal period of their life. Clinicians have an obligation to their patients to ensure that care is provided safely. The quality of the service that is provided to the patient is of utmost importance. Palliative care should be safely provided to patients.

A clinician has to be diligent with the care that they provide to their patients. Education is the best way that clinicians can ensure that they are well informed on different topics (The Hospice and Palliative Nurses Association, 2018). Education is considered as the first line of defense in caring for patients to ensure quality care is provided (The Hospice and Palliative Nurses Association, 2018). Patients feel safe when they think that they are receiving quality care.

The priority of patient care is to keep the patient safe. The role of palliative care is to provide service that encompasses all aspects of patient care. The Nurse Practitioner (NP) can help with educating the patient on their disease (Schroeder & Lorenz, 2018). The NP can provide continuous assessment and treat accordingly (Schroeder & Lorenz, 2018). Nurse practitioners have to be clinically prepared to provide palliative care services.

Quality and safety concerns are essential in palliative care as these patients are at a vulnerable stage of their disease. Clinicians being properly educated to provide palliative care will ensure a high level of care. Patients have to be confident that they are being given the best care. Clinician's education has to match the need of the patient population they will serve.

Education

Nurse practitioners have to be equipped to care for multiple types of patients. Palliative care encompasses the patient as a whole regarding treatment plans, symptomatic management, and supportive care. Nurse practitioner's comfort level with palliative care will help those at a pivotal moment of their disease. Palliative care included in the curriculum of NPs by way of didactic and/or clinical will improve the comfort level of this provider. Nursing programs should include palliative care in their undergraduate and graduate curriculums as recommended by national health care organizations. Insurance companies and health care organizations are noting

the benefits of palliative care, and patients' and their families are recognizing the improved quality of care with the addition of palliative services.

Education via didactic and clinical experience to teach palliative care will better prepare the clinician for practice. The most common way to have students learn is via lectures (Shreeve, 2008). Lectures allow for the introduction of new materials (Shreeve, 2008). Clinical experience will enable the clinician to practice the material learned (Shreeve, 2008). Incorporating didactic with clinical expertise allows for a cycle of learning. Palliative care included in education via didactic and clinical experience will make practitioners prepared for their work environment.

Comfort levels of clinicians improve when they are knowledgeable on the topic. Palliative care should be treated like all other subjects and be provided throughout a clinician's educational career (Lee, Carlon, Ramsay, & Thirukkumaran, 2017). It is better to introduce palliative care early in a clinician education to allow them to use the skill in clinical (Lee et al., 2017). Clinicians develop a comfort level with topics that are reviewed multiple times (Lee et al., 2017). Including palliative care early in a clinician education will improve their ability to provide the service.

The education of an NP has to align with the patient population that they will be serving. The Institute of Medicine (IOM; 2010) recommends that nurses' education align with their clinical practice. The Institute of Medicine (2010) thinks educational programs must be mindful of the current climate of healthcare and prepare students accordingly. The Institute of Medicine acknowledges that palliative care education is lacking in clinician's curriculum, and recommend training via continuing education programs (Dobbins, 2016). The use of palliative care is

recommended in practice by the IOM and clinicians programs have to prepare its students to meet these educational goals.

Medicare and Medicaid, the biggest supplier of insurance, want clinicians to be prepared to provide palliative care support to the patient. Educating clinicians on palliative care will help with having advance care planning conversations effectively. Medicare and Medicaid provide reimbursement for care provided that can be billed as palliative care as it decreases unnecessary treatment plans (Dobbins, 2016). Care for patients at end of life is expensive, and some of those costs can be avoided by ensuring patients are informed on their prognosis (Dobbins, 2016). Clinicians' knowledge and their ability to provide palliative care will be useful in all aspects of patient care.

Clinicians' being equipped to care for the patient population that they will be serving is important. Palliative care is a subject that needs more focus in the curriculum of clinicians. All patient populations can benefit from the services of palliative care. A well-informed clinician on the topic of palliative care is beneficial for the healthcare system as it helps with reimbursement and improves patient's quality of care.

Economic Implications

Healthcare is expensive. Palliative care is cost-effective. Clinicians that can provide the service to their patient population will aid in decreasing cost for their facility. Many patients can be appropriately referred to palliative care. Palliative care helps to reduce cost by way of alleviating unnecessary treatment plans, and insurance companies are aware of its benefits. The ability for clinicians to provide palliative care in their practice is a benefit to the patient and the healthcare facility.

Palliative care treatment plans involve symptom management. Patients that are dealing with serious illness are seen in the hospital setting for symptom management that can be treated appropriately outpatient. Patients with serious illnesses are often readmitted to a hospital setting for symptom management which place a burden on the facility (Donlon, Purlington, & Williams, 2018). Patients with serious illnesses are frequent users of healthcare facilities and the cost of that is enormous. Patients that are living with a serious illness can sometimes avoid hospital stay with the use of outpatient services or programs that are adopted by facilities to manage symptoms and prevent frequent readmission (Dobbins, 2016). The use of life-saving equipment for those at end of life can sometimes be avoided if patients make choices early in their disease process that will decrease suffering (Dobbins, 2016). The cost difference of those receiving palliative care services versus those that are not is significant (Donlon et al., 2018).

Affordable healthcare is important in all aspects of patient disease. Focus on healthcare in the United States is to provide health care that is high quality and cost-effective (The Hospice and Palliative Nurses Association, 2018). The Affordable Care Act includes the use of palliative care to be available to all patients (The Hospice and Palliative Nurses Association, 2018). The primary providers of insurance, Medicare and Medicaid, are noting the benefits of having clinicians well versed in providing palliative care to patients. Clinicians can provide palliative care in multiple settings inpatient or outpatient. Medicare and Medicaid offer incentives to the clinician to provide services that are included under the palliative care umbrella (Dobbins, 2016). The benefit for facilities that can provide a team approach to caring for patients with the use of palliative care for those with serious illnesses has a positive effect on cost (Dobbins, 2016).

Healthcare cost for those with a serious illness is costly. Clinicians being able to provide palliative care to decrease unnecessary hospital stay or emergency department visits aids in

keeping healthcare costs low. Patients that are well informed on their diseases and understand related symptoms can better manage their disease and avoid unnecessary treatments. The use of palliative care in the management of diseases is beneficial monetarily and improves the quality of care for patients.

Sustainability/Plans for Future Scholarship

This palliative care project has the potential to be repeated. The plan for this project was to introduce students to the concept of palliative care and to better utilize the service in planning the care of their patients. It would be beneficial to have the project repeated with more participants. The data from those that participated showed that students did gain some knowledge of palliative care and were able to incorporate some of this knowledge into plans of care in the patient case studies. Palliative care is being recommended to be used nationally and at the States level by clinician to assist patients in symptom management associated with serious illnesses.

The project will be shared with others with the hope that it can be repeated, and more substantial data can be obtained. This project in a different setting with a larger group may show significance in the results. The project will be made available to others via Rutgers University archives and be presented at Rutgers Poster Day. The data from this study was small, but attempts will be made to have it published in the *Journal of Palliative Care*.

Summary

Palliative care is an important subject that should be in the curriculums of clinicians. Patients that are dealing with serious illness will require that level of care. Palliative care should be embedded into treatment plans. Clinicians must be given the tools needed for them to care for the patient when they are in practice. The best way to ensure a clinician's comfort with palliative

care is through education and clinical experiences. Nurse Practitioners can lead in this area of practice with proper training.

References

- American Academy of Hospice and Palliative Medicine. Palliative care and hospice education and training act. Retrieved from http://aahpm.org/uploads/advocacy/PCHETA_Summary.pdf
- American Association of Critical Care Nurses. (2019). *Palliative care in the acute & critical care setting*. Retrieved from <https://www.aacn.org/clinical-resources/palliative-end-of-life>
- Buss, M. K., Rock, L. K., & McCarthy, E. P. (2017). Understanding palliative care and hospice: A review for primary care providers. *Mayo Clinic Proceedings*, 92(2):280- 286. <https://doi.org/10.1016/j.mayocp.2016.11.007>
- Campbell, M. L. (2012). *Case Studies Palliative and End-of Life Care*. Ames, Iowa: Wiley-Blackwell
- Centers for Disease Control and Prevention. (2017). *Deaths and mortality: Data are for the U.S.* Retrieved April 2, 2019, from <https://www.cdc.gov/nchs/fastats/deaths.htm>
- Center for Hospice Care: Southeast Connecticut. (2018). *Hospice & Palliative Care*. Retrieved from <https://www.hospicesect.org/hospice-and-palliative-care>
- Chan, G. K. (2012). Case 2.5: Dyspnea and heart failure. In M. L. Campbell (Ed.), *Case studies in palliative an end of life care* (pp. 117-127). Ames, IA: John Wiley & Sons.
- Chiu, N., Cheon, P., Lutz, S., Lao, N., Pulenzas, N., Chiu, L., . . . Chow, E. (2015). Inadequacy of palliative training in the medical school curriculum. *Journal of Cancer Education*, 30(4), 749-753. doi:10.1007/s13187-014-0762-3

- Chover-Sierra, E., Martinez-Sabater, A., & Lapena-Monux, Y. R. (2017). An instrument to measure nurses' knowledge in palliative care: Validation of the Spanish version of palliative care quiz for nurses. *Plos One*, 12(5). doi: 10.1371/journal.pone.0177000
- Dimoula, M., Kotronoulas, G., Katsaragakis, S., Christou, M., Sgourou, S., & Patiraki, E. (2019). Undergraduate nursing students' knowledge about palliative care and attitudes towards end-of-life care: A three-cohort, cross-sectional survey. *Nurse Education Today*, 74, 7-14. Retrieved from <https://doi.org/10.1016/j.nedt.2018.11.025>
- Dobbins, E. H. (2016). Improving end-of-life care: Recommendations from the IOM. *The Nurse Practitioner*, 41(9), 26-34. Retrieved from https://www.nursingcenter.com/cearticle?an=00006205-201609000-00004&Journal_ID=54012&Issue_ID=3638360
- Donlon, R., Purlington, K., & Williams, N. (2018). Advancing palliative care for adults with serious illness: A national review of state palliative care policies and programs. *National Academy for State Health Policy*, 1-13. Retrieved March 28, 2019, from <https://nashp.org/wp-content/uploads/2018/12/Palliative-Care-Brief-Final.pdf>
- Dyar, S., Lesperance, M., Shannon, R., Sloan, J., & Colon-Otero, G. (2012). A nurse practitioner directed intervention improves the quality of life of patients with metastatic cancer: Results of a randomized pilot study. *Journal of Palliative Medicine*, 15(8), 890-895. doi: 10.1089/jpm.2012.0014
- English, J. (2015). Palliative care a key to living with dignity. *AARP the Magazine*. Retrieved April 12, 2019, from <https://www.aarp.org/politics-society/advocacy/info-2015/palliative-care-living-with-dignity-english.html>

- Fan, S., Lin, I., Hsieh, J., & Chang, C. (2017). Psychosocial care provided by physicians and nurses in palliative care: A mixed methods study. *Journal of Pain and Symptom Management*, 53(2), 216-223. <https://doi.org/10.1016/j.jpainsymman.2016.08.019>
- Fay, M. (2019, April, 02). End-of-life options - Hospice cost & who pays for care. Retrieved from <https://www.debt.org/medical/hospice-costs/>
- Farbman, R. (2017). American nurses association and hospice & palliative nurses association call for palliative care in every setting. *American Nurses Association*. Retrieved from <https://www.nursingworld.org/news/news-releases/2017-news-releases/american-nurses-association-and-hospice--palliative-nurses-association-call-for-palliative-care-in-every-setting/>
- Gorina, Y., Pratt, L. A., Kramarow, E. A., & Elgaddal, M.S. (2015). Hospitalization, readmission, and death experience of noninstitutionalized medicare fee-for-service beneficiaries aged 65 and over. *National Health Statistics Reports*, 84. Retrieved April 2, 2019, from <https://www.cdc.gov/nchs/data/nhsr/nhsr084.pdf>
- Graham, I. D., Logan, J., Harrison, M. B., Straus, SE, Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education Health Professions*, 26(1), 13-24. doi:10.1002/chp.47
- Hacksaw, A. (2008). Small studies strengths and limitations. *Europe Respiratory Journal*, 32, 1141-1143. doi: 10.1183/09031936.00136408
- Head, B. A., Schapmire, T. J., Earnshaw, L., Chenault, J., Pfeifer, M., Sawning, S., & Shaw, M. A. (2016). Improving medical graduates' training in palliative care: Advancing education and practice. *Advance in Medical Education and Practice*, 7, 99-113. doi: 10.2147/AMEP.S94550

- Healthy Aging Facts. (2018, June 12). Retrieved from <https://www.ncoa.org/news/resources-for-reporters/get-the-facts/healthy-aging-facts/>
- Hertzog MA. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health*, 31(2), 180–191. Retrieved from <https://login.proxy.libraries.rutgers.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=105737884&site=ehost-live>
- Hickman, S. E., & Critser, R. (2018). National standards and state variation in orders for life-sustaining treatment forms. *Journal of Palliative Medicine*, 21(7), 978-986. Doi: 10.1089/jpm.2017.0606
- “Hospice & Palliative Care.” (2018). Retrieved from <https://www.hospicesect.org/hospice-and-palliative-care>
- Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. Retrieved from http://books.nap.edu/openbook.php?record_id=12956&page=R1
- Institute of Medicine. (2014). *Dying in America: Improving quality and Honoring individual Preferences near the end of life*. Retrieved from <http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2014/EOL/Report%20Brief.pdf>
- Jensen-Seaman, K., & Herbert, R. S. (2016). Palliative care education in nurse practitioner programs: A survey of academic deans. *Nurse Education*, 41(3). doi: 10.1097/NNE.0000000000000247

- Kriebel-Gasparro, A., & Doll-Shaw, M. (2017). Integration of palliative care into a nurse practitioner DNP program. *Journal for Nurse Practitioners*, 13(8), e383-e388.
doi:10.1016/j.nurpra.2017.04.011
- LaPonsie, M. (2018). The cost of entering hospice care. *US News*. Retrieved March 28, 2019, from <https://money.usnews.com/money/personal-finance/family-finance/articles/2018-11-01/the-costs-of-entering-hospice-care>
- Lee, A. Y. S., Carlon, B., Ramsay, R., and Thirukkumaran, T. (2017). Integrating exposure to palliative care in an undergraduate medical curriculum: Student perspectives and strategies. *International Journal of Medical Education*, 8, 151-152. doi: 10.5116/ijme.58cc.500c
- Lewis, C., Reid, J., McLernon, Z., Ingham, R., & Traynor, M. (2016). The impact of a simulated intervention on attitudes of undergraduate nursing and medical students towards end of life care provision. *BMC Palliative Care*, 15(67). Retrieved from <https://doi.org/10.1186/s12904-016-0143-2>
- Long, A. C., Downey, L., Engelberg, R. A., Ford, D. W., Back, A. L., & Curtis, J. R. (2016). Physicians' and nurse practitioners' level of pessimism about end-of-life care during training: Does it change over time?. *Journal of pain and symptom management*, 51(5), 890-897. doi: 10.1016/j.jpainsymman.2015.11.024
- McRee, L., & Reed, P. G. (2016). Nurse practitioners: Knowledge, skills, and leadership for the end-of-life conversation in intensive care. *Nursing Science Quarterly*, 29(1), 78–81. Retrieved from <https://doi.org/10.1177/0894318415614910>

- National Coalition for Hospice and Palliative Care. (2018). *Clinical practice guidelines for quality of palliative care*. Retrieved March 24, 2019, from https://www.nationalcoalitionhpc.org/wp-content/uploads/2018/10/NCHPC-NCPGuidelines_4thED_web_FINAL.pdf
- National Institute of Drug Abuse. (2019). *Opioid Overdose Crisis*. Retrieved from <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>
- New Jersey Colleges and Universities. (2019). Retrieved from <https://www.free-4u.com/colleges/new-jersey-colleges.html>
- Office of Disease Prevention and Health Promotion. (2014). Access to health services. In *Healthy People 2020*. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>
- Ollive, M. (2017). Why some patients aren't getting palliative care. Retrieved March 28, 2019, from <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2017/07/10/why-some-patients-arent-getting-palliative-care>
- Pyrillis, R. (2019). Employers see palliative care as option to cut health costs. *Workforce*. Retrieved March 28, 2019, from <https://www.workforce.com/2019/01/11/employers-palliative-care-option-cut-health-costs/>
- Ramanayake, R. P. J. C., Dilanka, G. V. A., & Premasasiri, L. W. S. S. (2016). Palliative care; role of family physicians. *Journal of Family Medicine and Primary Care*, 5(2), 234-237. doi: 10.4103/2249-4863.192356

- Ross, M. M., McDonald, B., & McGuinness, J. (1996). The palliative care quiz for nursing (PCQN): The development of an instrument to measure nurses' knowledge of palliative care. *Journal of Advanced Nursing*, 23, 126-137.
- Rutgers University. (2019a). *Center for Educational Research and Education Center*. Retrieved from <http://nursing.rutgers.edu/CERI/index.html>
- Rutgers University. (2019b). *Fast Facts – 2015 -2016*. Retrieved from <http://nursing.rutgers.edu/about/facts.html#enrollment-snapshot>
- Schoonover, K., Herber, A., Heusinkvelt, S., Yadav, H., & Burton, M. C. (2018). Case-based powerpoint to improve knowledge and comfort of having code status discussions by physician assistant and nurse practitioner students. *Journal of Palliative Care*. doi:10.1177/0825859718810725
- Schroeder, K. (2018). Nursing and the future of palliative care. *Asia Pacific Journal Oncology Nursing*, 5(1), 4-8. doi:10.4103/apjon.apjon_43_17
- Shih, C. Y., Hu, W. Y., Lee, L. T., Yao, C. A., Chen, C. Y., & Chiu, T. Y. (2012). Effect of a compassion-focused training program in palliative care education for medical students. *American Journal of Hospice & Palliative Medicine*, 30(2), 114-120. doi:10.1177/1049909112445463
- Shreeve, M. W. (2008). Beyond the didactic classroom: educational models to encourage active student involvement in learning. *The Journal of Chiropractic Education*, 22(1), 23-28. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2384190/>
- Stacy, A., Magdic, K., Rosenzweig, M., Freeman, B., & Verosky, D. (2019). Improving knowledge, comfort, and confidence of nurses providing end-of-life care in the hospital

setting through use of the CARES tools. *Journal of Hospice & Palliative Nurse*.

doi:10.1097/njh.0000000000000510

Stainton, L. H. (2019). NJ takes next step toward palliative care education, outreach. *NJ*

Spotlight: News, Issues and Insight for New Jersey. Retrieved from

<https://www.njspotlight.com/2019/05/19-05-27-nj-takes-next-step-toward-palliative-care-education-outreach/>

Sun, R., Karaca, Z., & Wong, H. S. (2018). Trends in hospital emergency department visits by

age and payer 2006-2015. *Healthcare Cost and Utilization Project*. Retrieved from

<https://www.hcup-us.ahrq.gov/reports/statbriefs/sb238-Emergency-Department-Age-Payer-2006-2015.jsp>

Teoli, D., & An, J. (2019). SWOT Analysis. *StatPearls*. Retrieved from

<https://www.ncbi.nlm.nih.gov/books/NBK537302/>

The Hospice and Palliative Nurses Association, (2018). Ensuring high quality in palliative care.

Journal of Hospice & Palliative Nursing, 20(6), E10-E12. doi:

10.1097/NJH.0000000000000520

U.S. News and World Report. (2019). *How Does Rutgers University-Newark Rank Among*

America's Best Nursing Schools?. Retrieved from [https://www.usnews.com/best-](https://www.usnews.com/best-graduate-schools/top-nursing-schools/rutgers-biomedical-and-health-sciences-33177)

[graduate-schools/top-nursing-schools/rutgers-biomedical-and-health-sciences-33177](https://www.usnews.com/best-graduate-schools/top-nursing-schools/rutgers-biomedical-and-health-sciences-33177)

Valente, S. (2019). Facts Sheet on End-of-Life Care. *American Psychological Association*.

Retrieved from <https://www.apa.org/pi/aging/programs/eol/end-of-life-factsheet.pdf>

“What is Palliative Care?.” (2019). Retrieved from <https://getpalliativecare.org/whatis/>

White, K. M., Dudley-Brown, S., & Terhaar, M. F. (2016). *Translation of evidence into nursing and health care*. New York: Springer Publishing Company.

World Health Organization [WHO]. (2019). *Definition of Palliative Care*. Retrieved on March 27, 2019 from <https://www.who.int/cancer/palliative/definition/en/>

World Health Organization [WHO]. (2018). *Palliative Care*. Retrieved May 23, 2019, from <https://www.who.int/news-room/fact-sheets/detail/palliative-care>

Zeitoun, N. K. (2015). New medicare rule will reimburse physician for advance care planning. *The Hospitalist*, 11. Retrieved from <https://www.the-hospitalist.org/hospitalist/article/122030/health-policy/new-medicare-rule-will-reimburse-physicians-advance-care>

Appendix A

John Hopkins Appraisal Tool: Research/Non-Research

Johns Hopkins Nursing Evidence-Based Practice Appendix E: Research Evidence Appraisal Tool

Evidence Level and Quality: _____

Article Title:		Number:	
Author(s):		Publication Date:	
Journal:			
Setting:		Sample (Composition & size):	
Does this evidence address my EBP question?	<input type="checkbox"/> Yes	<input type="checkbox"/> No Do not proceed with appraisal of this evidence	
Level of Evidence (Study Design)			
A. Is this a report of a single research study? <i>If No, go to B.</i>			
1. Was there manipulation of an independent variable?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
2. Was there a control group?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3. Were study participants randomly assigned to the intervention and control groups?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If Yes to all three, this is a Randomized Controlled Trial (RCT) or Experimental Study →		<input type="checkbox"/> LEVEL I	
If Yes to #1 and #2 and No to #3, OR Yes to #1 and No to #2 and #3, this is Quasi Experimental (some degree of investigator control, some manipulation of an independent variable, lacks random assignment to groups, may have a control group) →		<input type="checkbox"/> LEVEL II	
If No to #1, #2, and #3, this is Non-Experimental (no manipulation of independent variable, can be descriptive, comparative, or correlational, often uses secondary data) or Qualitative (exploratory in nature such as interviews or focus groups, a starting point for studies for which little research currently exists, has small sample sizes, may use results to design empirical studies) →		<input type="checkbox"/> LEVEL III	
NEXT, COMPLETE THE BOTTOM SECTION ON THE FOLLOWING PAGE, "STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION"			

**Johns Hopkins Nursing Evidence-Based Practice
Appendix E: Research Evidence Appraisal Tool**

<p>B. Is this a summary of multiple research studies? <i>If No, go to Non-Research Evidence Appraisal Form.</i></p>		<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>1. Does it employ a comprehensive search strategy and rigorous appraisal method (Systematic Review)? <i>If No, use Non-Research Evidence Appraisal Tool; if Yes:</i></p>		<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>a. Does it combine and analyze results from the studies to generate a new statistic (effect size)? (Systematic review with meta-analysis)</p>		<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>b. Does it analyze and synthesize concepts from qualitative studies? (Systematic review with meta-synthesis)</p>		<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><i>If Yes to either a or b, go to #2B below.</i></p>		
<p>2. For Systematic Reviews and Systematic Reviews with meta-analysis or meta-synthesis:</p>		
a. Are all studies included RCTs?	→ <input type="checkbox"/> LEVEL I	
b. Are the studies a combination of RCTs and quasi-experimental or quasi-experimental only?	→ <input type="checkbox"/> LEVEL II	
c. Are the studies a combination of RCTs, quasi-experimental and non-experimental or non-experimental only?	→ <input type="checkbox"/> LEVEL III	
d. Are any or all of the included studies qualitative?	→ <input type="checkbox"/> LEVEL III	
<p>COMPLETE THE NEXT SECTION, "STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION"</p>		
<p>STUDY FINDINGS THAT HELP YOU ANSWER THE EBP QUESTION:</p>		
<p>NOW COMPLETE THE FOLLOWING PAGE, "QUALITY APPRAISAL OF RESEARCH STUDIES", AND ASSIGN A QUALITY SCORE TO YOUR ARTICLE</p>		

Quality Appraisal of Research Studies			
<ul style="list-style-type: none"> Does the researcher identify what is known and not known about the problem and how the study will address any gaps in knowledge? Was the purpose of the study clearly presented? Was the literature review current (most sources within last 5 years or classic)? Was sample size sufficient based on study design and rationale? If there is a control group: <ul style="list-style-type: none"> Were the characteristics and/or demographics similar in both the control and intervention groups? If multiple settings were used, were the settings similar? Were all groups equally treated except for the intervention group(s)? Are data collection methods described clearly? Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)? Was instrument validity discussed? If surveys/questionnaires were used, was the response rate $\geq 25\%$? Were the results presented clearly? If tables were presented, was the narrative consistent with the table content? Were study limitations identified and addressed? Were conclusions based on results? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	<input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA <input type="checkbox"/> NA
Quality Appraisal of Systematic Review with or without Meta-Analysis or Meta-Synthesis			
<ul style="list-style-type: none"> Was the purpose of the systematic review clearly stated? Were reports comprehensive, with reproducible search strategy? <ul style="list-style-type: none"> Key search terms stated Multiple databases searched and identified Inclusion and exclusion criteria stated Was there a flow diagram showing the number of studies eliminated at each level of review? Were details of included studies presented (design, sample, methods, results, outcomes, strengths and limitations)? Were methods for appraising the strength of evidence (level and quality) described? Were conclusions based on results? <ul style="list-style-type: none"> Results were interpreted Conclusions flowed logically from the interpretation and systematic review question Did the systematic review include both a section addressing limitations and how they were addressed? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	
QUALITY RATING BASED ON QUALITY APPRAISAL			
<p>A High quality: consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence</p> <p>B Good quality: reasonably consistent results; sufficient sample size for the study design; some control, and fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</p> <p>C Low quality or major flaws: little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn</p>			

Johns Hopkins Nursing Evidence-Based Practice Appendix F: Non-Research Evidence Appraisal Tool

Evidence Level & Quality: _____

Article Title:		Number:	
Author(s):		Publication Date:	
Journal:			
Does this evidence address the EBP question?	<input type="checkbox"/> Yes	<input type="checkbox"/> No Do not proceed with appraisal of this evidence	
<input checked="" type="checkbox"/> Clinical Practice Guidelines: Systematically developed recommendations from nationally recognized experts based on research evidence or expert consensus panel. LEVEL IV			
<input checked="" type="checkbox"/> Consensus or Position Statement: Systematically developed recommendations based on research and nationally recognized expert opinion that guides members of a professional organization in decision-making for an issue of concern. LEVEL IV			
<ul style="list-style-type: none"> Are the types of evidence included identified? Were appropriate stakeholders involved in the development of recommendations? Are groups to which recommendations apply and do not apply clearly stated? Have potential biases been eliminated? Were recommendations valid (reproducible search, expert consensus, independent review, current, and level of supporting evidence identified for each recommendation)? Were the recommendations supported by evidence? Are recommendations clear? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	
<input type="checkbox"/> Literature Review: Summary of published literature without systematic appraisal of evidence quality or strength. LEVEL V			
<ul style="list-style-type: none"> Is subject matter to be reviewed clearly stated? Is relevant, up-to-date literature included in the review (most sources within last 5 years or classic)? Is there a meaningful analysis of the conclusions in the literature? Are gaps in the literature identified? Are recommendations made for future practice or study? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	
<input type="checkbox"/> Expert Opinion: Opinion of one or more individuals based on clinical expertise. LEVEL V			
<ul style="list-style-type: none"> Has the individual published or presented on the topic? Is author's opinion based on scientific evidence? Is the author's opinion clearly stated? Are potential biases acknowledged? 	<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	

Johns Hopkins Nursing Evidence-Based Practice Appendix F: Non-Research Evidence Appraisal Tool

Organizational Experience:			
<input type="checkbox"/> Quality Improvement: Cyclical method to examine organization-specific processes at the local level. LEVEL V			
<input type="checkbox"/> Financial Evaluation: Economic evaluation that applies analytic techniques to identify, measure, and compare the cost and outcomes of two or more alternative programs or interventions. LEVEL V			
<input type="checkbox"/> Program Evaluation: Systematic assessment of the processes and/or outcomes of a program and can involve both quantitative and qualitative methods. LEVEL V			
Setting:		Sample (composition/size):	
<ul style="list-style-type: none"> Was the aim of the project clearly stated? Was the method adequately described? Were process or outcome measures identified? Were results adequately described? Was interpretation clear and appropriate? Are components of cost/benefit analysis described? 		<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Case Report: In-depth look at a person, group, or other social unit. LEVEL V			
<ul style="list-style-type: none"> Is the purpose of the case report clearly stated? Is the case report clearly presented? Are the findings of the case report supported by relevant theory or research? Are the recommendations clearly stated and linked to the findings? 		<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No
Community Standard, Clinician Experience, or Consumer Preference			
<input type="checkbox"/> Community Standard: Current practice for comparable settings in the community LEVEL V			
<input type="checkbox"/> Clinician Experience: Knowledge gained through practice experience LEVEL V			
<input type="checkbox"/> Consumer Preference: Knowledge gained through life experience LEVEL V			
Information Source(s):		Number of Sources:	
<ul style="list-style-type: none"> Source of information has credible experience. Opinions are clearly stated. Identified practices are consistent. 		<input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> N/A
Findings that help you answer the EBP question:			

Johns Hopkins Nursing Evidence-Based Practice Appendix F: Non-Research Evidence Appraisal Tool

QUALITY RATING FOR CLINICAL PRACTICE GUIDELINES, CONSENSUS OR POSITION STATEMENTS (LEVEL IV)

- A High quality:** Material officially sponsored by a professional, public, private organization, or government agency; documentation of a systematic literature search strategy; consistent results with sufficient numbers of well-designed studies; criteria-based evaluation of overall scientific strength and quality of included studies and definitive conclusions; national expertise is clearly evident; developed or revised within the last 5 years.
- B Good quality:** Material officially sponsored by a professional, public, private organization, or government agency; reasonably thorough and appropriate systematic literature search strategy; reasonably consistent results, sufficient numbers of well-designed studies; evaluation of strengths and limitations of included studies with fairly definitive conclusions; national expertise is clearly evident; developed or revised within the last 5 years.
- C Low quality or major flaws:** Material not sponsored by an official organization or agency; undefined, poorly defined, or limited literature search strategy; no evaluation of strengths and limitations of included studies, insufficient evidence with inconsistent results, conclusions cannot be drawn; not revised within the last 5 years.

QUALITY RATING FOR ORGANIZATIONAL EXPERIENCE (LEVEL V)

- A High quality:** Clear aims and objectives; consistent results across multiple settings; formal quality improvement or financial evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence
- B Good quality:** Clear aims and objectives; formal quality improvement or financial evaluation methods used; consistent results in a single setting; reasonably consistent recommendations with some reference to scientific evidence
- C Low quality or major flaws:** Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement/financial analysis method; recommendations cannot be made

QUALITY RATING FOR LITERATURE REVIEW, EXPERT OPINION, COMMUNITY STANDARD, CLINICIAN EXPERIENCE, CONSUMER PREFERENCE (LEVEL V)

- A High quality:** Expertise is clearly evident; draws definitive conclusions; provides scientific rationale; thought leader in the field
- B Good quality:** Expertise appears to be credible; draws fairly definitive conclusions; provides logical argument for opinions
- C Low quality or major flaws:** Expertise is not discernable or is dubious; conclusions cannot be drawn

Appendix B

Table of Evidence

Author/Year Title	Study Topic/Problem	Study Methods		Results	Comments	Evidence Level & Quality
		Intervention	Outcome			
Long, A. C., Downey, L., Engelberg, R. A., Ford, D., Back, A. I, & Curtis, J. R. (2016). Physicians' and nurse practitioners' level of pessimism about end-of-life care during training: Does it change over time?	Research attitudes of NPs, residents and fellow in regard to end of life issues	Used a pre and post survey to examine these clinicians' attitudes; participants were randomly assigned to a workshop; post survey was done after 1 year of the participants being in the clinical setting	Out of 1068 participants, 383 completed the research study	Post workshop 49% found it difficult to keep patients hopeful after discussing terminal illness; but with experience pessimism decrease.	Randomized control trial study The survey used was not validated; and lack of diversity from the participant	Research Level I High quality
Schoonover, K., Herber, A., Heusinkvelt, S., Yadav, H., & Burton, C. (2018). Case- based	Research if a case-based PowerPoint can be used to improve code status discussion	Pre-survey used to assess knowledge; than short case-based PowerPoint presentation on	All 14 participants made up of medical student, PA and NP	PowerPoint was used to improve knowledge on code status, and they found that 89% started having code	Prospective, single academic center pilot study	Research Level III/good quality

PowerPoint to improve knowledge and comfort of having code status discussions by physician assistant and nurse practitioner students.	among NPs' and Pas'	code status decisions and then a post survey	completed the surveys	status conversation once this was implemented.		
Chiu, N., Cheon, P., Lutz, S., Lao, N., Pulenzas, N., Chiu, L., McDonald, R., Rowbottom, L., & Chow, E. (2015). Inadequacy of palliative training in the medical school curriculum.	Literature review to evaluate palliative training with medical students	Search conducted in medline with dates ranging from 1950-Aug 2014; using specific search terms of palliative, medical school, end of life, training, and education; researchers used only articles written in English and if the articles discuss palliative education and	In their search 24 articles were found to be useful for their topic	Concluded that due to aging populations and chronic conditions it is necessary for palliative care to be included in their education. The researchers also made note that increase exposure help with making clinicians better at addressing the topic	Literature review Mostly qualitative studies were use as part of this literature review; not done systematically	Non-research Level III/high quality

		its improvement				
Jensen-Seaman, K., & Herbert, R. S. (2016). Palliative care education in nurse practitioner programs: A survey of academic deans.	This study done to evaluate if NP programs are providing palliative care in their curriculum	Survey sent to 376 deans of NP programs	101 deans responded	46% responded that the curriculum was already overloaded with subjects; and 35 of the schools that were part of the sample size did not include palliative care at all via imbedding it into different topics, or offered clinical sites that have palliative care	Cross-sectional survey Lack of time and staff preparedness on the subject stated as issues for palliative care not being included in most curriculums	Research Level III/good quality
Shih, C., Hu, W., Lee, L., Yao, C., Chen, C., & Chiu, T. (2012)	The researchers were concern about compassion in those requiring palliative care among medical students	Cross-sectional survey done among medical students and a 1-day multimodule course on palliative care was done which included lecture, patient visit on a palliative care	251 Medical students participated	Post training there was an improvement of 85% from 78% of students with improve compassion for those in palliative care. Palliative care training added to medical student's	Cross-sectional survey Done in Taiwan so study would need to be duplicated elsewhere to check for validity	Research Level III/good quality

		unit and role playing		curriculum proven to be beneficial at improving decision making skills		
National Coalition for Hospice and Palliative Care. (2018).	Clinical guideline for hospice and palliative care.	No method use conclusion derive from other studies	No method use conclusion derive from other studies	Hospice/Palliative care guideline using references to give clinicians a way of how it can be and should be incorporated in practice	Extensive guideline on hospice and palliative care	Non-research Level IV/high quality
Kriebel-Gasparro, A., & Doll-Shaw, M. (2017). Integration of palliative care into a nurse practitioner DNP program.	This research was done to integrate palliative care into a DNP program	The students were given a 3.5 hour didactic and one or two days of clinical on palliative care; pre/post-survey done to check the effectiveness of the program integration into the curriculum	30 NPs participated in this research	This research showed that integrating end of life care into a DNP curriculum prove to be helpful to new nurse practitioners. 90% of the participants agreed that even 1 day of didactic and 1 day of clinical made a difference in their knowledge of palliative care	Qualitative study Extensive survey of 54 questions	Research Level III/good quality

<p>Stacy, A., Magdic, K., Rosenzweig, M., Freeman, B., & Verosky, D. (2019). Improving knowledge, comfort, and confidence of nurses providing end-of-life care in the hospital setting through use of the CARES tools.</p>	<p>Communication among those at end of life stated in the research as being difficult; they use the CARES tools which is an acronym for symptoms that some may experience at end of life to guide conversation among nursing staff, families and patients</p>	<p>Pre/post surveys used in this study. The participants were provided education on the CARES tool and then used it on a progressive care unit over a 5-month period and then post survey done to assess comfort level</p>	<p>A total of 9 nurses participated in this study</p>	<p>This study thought nurses end of life care communication using the CARES tool. The CARES tool is to increase knowledge of symptoms related to EOL as in comfort, airway, restlessness, delirium, emotional, self-care, and spiritual to help nurses manage patient at EOL. These nurses were first surveyed on the topic than given education on the topic that aided them with having end of life discussion with their patient and families and was proven to be helpful by those that participated</p>	<p>Pre and post quasi experimental design with pre-educational and post educational intervention</p> <p>Small sample size; but this study has been done by other researchers that had similar findings Interviews of the families was conducted by nurses at their discretion</p>	<p>Research Level II/good quality</p>
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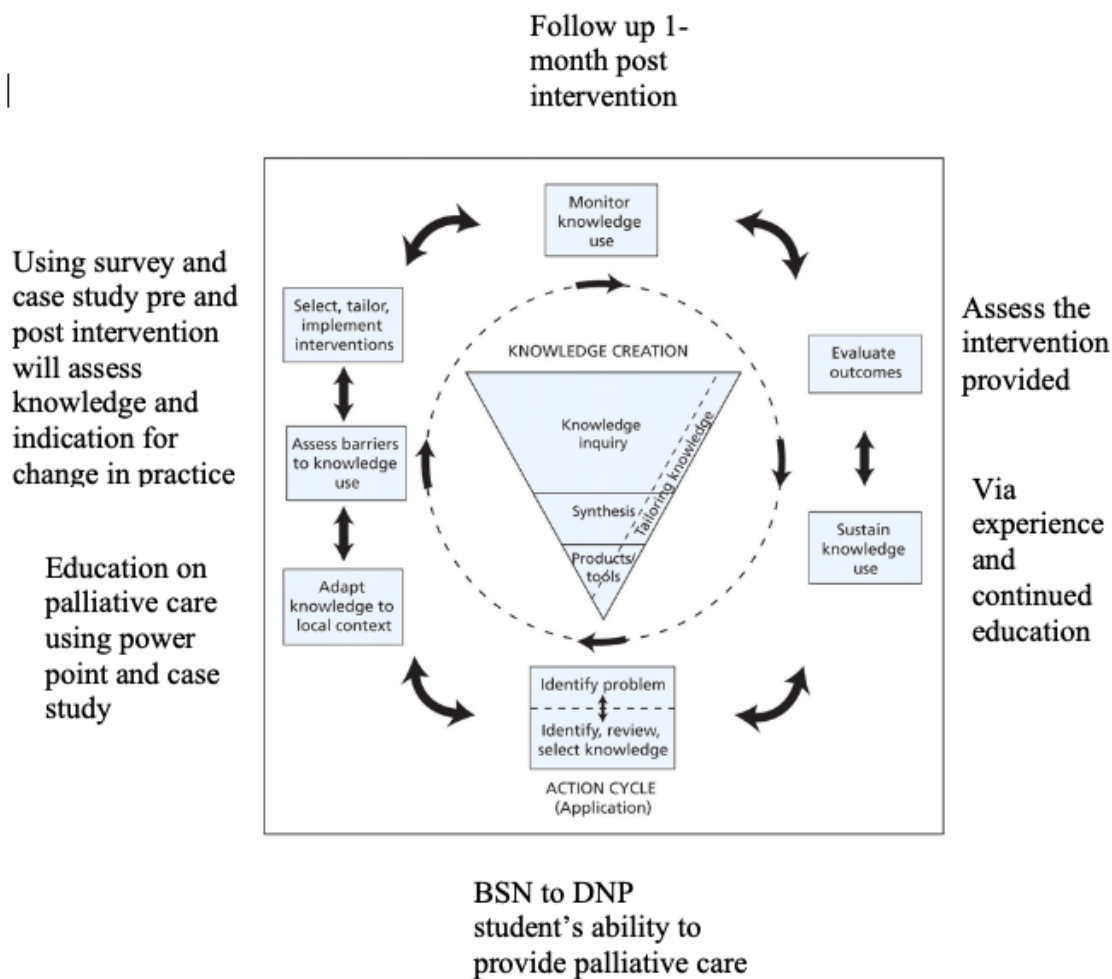
Lewis, C., Reid, J., McLernon, Z., Ingham, R., & Traynor, M. (2016). The impact of a simulated intervention on attitudes of undergraduate nursing and medical students towards end of life care provision	Purpose of this study was to see if simulation can be used to improve attitudes towards end of life care among medical and nursing students	This was a voluntary study with participants that chose to participate in 2 types of simulation that allow them to practice their assessment and communication skills on patient that are at end of life	19 participants	Highlighted medical students and nurses needing experience with end of life care in order to be good at it; the researchers did a simulation to improve that skillset for participants; the researchers noted knowledge in this area is important given that end of life topics will be encountered during their practice. Simulation is use in many aspects of healthcare education and this is another way it can be used to teach student.	Quasi-experimental, pre-test/post-test design without a control group Frommelt Attitudes Towards Care of the Dying Part B Scale was use	Research level II/good quality
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Dimoula, M., Kotronoulas, G., Katsaragakis, S., Christou, M., Sgourou, S., Patiraki, E. (2019). Undergraduate nursing students' knowledge about palliative care and attitudes towards end-of-life care: A three-cohort, cross-sectional survey	The researchers aim was to look at undergraduate nursing student's knowledge and attitudes at end of life	The researchers use the PCQN and Frommelt Attitudes Toward Care of the Dying	Response rate was 87.6%	The researchers found a lack within this group knowledge of palliative care; 60% found to have a positive attitude to caring for those at end of life	Descriptive, cross-sectional, questionnaire-based survey design. Average age of participants 21.7 Suggested palliative care to be included as part of curriculum	Research Level III/good quality
Dyar, S., Lesperance, M., Shannon, R., Sloan, J., & Gerardo, C. (2012). A nurse practitioner directed intervention improves the quality of life of patients with metastatic cancer: Results of a randomized pilot study.	This study examined if a nurse practitioner led program which provided end of life discussion in those with metastatic cancer would be helpful	The study planned to recruit 100 patients and randomly place in either control or interventional group. Both groups completed pre assessment and post assessment survey which included	26 patients participated in this study This research ended early due to positive results of the interventional group perception of quality of care	This was a small pilot study with 26 participants which were separated into those that receive end of life intervention imbedded into their care and those that receive standard care. They found the patients that receive the intervention their	Randomize control trial, pilot study	Research Level I/ High quality

		<p>hospice questionnaires, functional assessment of cancer therapy general and linear analogue self-assessment scale. The control group received standard of care which mean if they required hospice than they would be referred and at their request would; interventional group was given discussion in regard to option for end of life planning and were assisted in filling out advance directives forms.</p>		<p>mental state improves and their perception of quality of life</p>		
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Appendix C


Theoretical Framework Diagram



Adapted from (Graham, et al., 2006)

Appendix D

Palliative Care PowerPoint




School of Nursing

Palliative Care


Gesemene Ulysse, AGNP, MSN

Version 1.06/15/2019




What is Palliative Care?

Extra support for patients that are dealing with life-altering illnesses for symptom management, spiritual assistance, diagnosis education, medication management, and end of life (EOL) management



School of Nursing (Hospice & Palliative Care, 2018)

Version 1.06/15/2019




Palliative Care

- Can be introduced at any stage of treatment of a person with a serious chronic illness that can lead to death
- Curative treatment can be continued while on palliative care
- Patients can be placed in palliative care and choose to be removed
- Diseases that palliative care is useful: cancer, advanced COPD, CHF, Alzheimer's disease
- Focus on quality of life
- Reaffirm that death is a normal process
- Assist family
- Can be transition from palliative to hospice care


School of Nursing (What is palliative care, 2019)

Version 1.06/15/2019



Palliative vs. Hospice Care

Palliative care	Hospice care
– Focus on symptom management	– Prognosis less than 6 months
– Educate patient and families on diagnosis and prognosis	– Curative treatment stopped
– Emotional support	– Focus on comfort care
– Can be provided by PCP, acute and non acute care setting	– Educate on normal dying process
	– Provide grieving support to families
	– Normally provided by specialized personnel



School of Nursing (Center for Hospice Care: Southeast Connecticut, 2018; AACN, 2019)

Version 1.06/15/2019

RUTGERS


A Bit of History of Palliative Care

- 1948 Dr. Saunders use the term hospice
- 1967 Dr. Saunders created St. Christopher's hospice in the United Kingdom
- 1978 U.S. Department of Health, Education and Welfare task force report hospice should be use in end of life
- 1984 JCAHO initiate hospice accreditation
- 1997 growing need for improvement of clinician to improve quality care at end of life
- 2001 Children's Project on Palliative/Hospice Services want improvement in the care care of those dealing with life altering illnesses
- 2002 Department of Veterans Affairs launches program for vets to have access to this service
- 2004 Clinical Practice Guidelines for Quality Palliative Care published by national consensus project
- 2006 ABMS recognized palliative and hospice as a specialty

School of Nursing (National Hospice and Palliative Care Organization, 2016) Version 1: 06/15/2019

RUTGERS

Pain Management



1st establish realistic goals
Is there a history of pain use
Acute vs. chronic
May not be establish being pain free
Start with non-opioid medications ex Tylenol, Motrin
Use same scale to assess and reassess pain

School of Nursing (American Pain Society, 2016) Version 1: 06/15/2019

RUTGERS

Pain Management

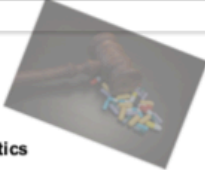
- Short acting medications:
 - Oral Morphine, Oxycodone, Hydromorphone
 - Peak time 60-90 min
 - Can be ordered q 2-4hrs
- Long acting medications
- Other routes in cases of dysphagia
 - Sq, IV, IM, transdermal
 - Ex. Hydromorphone, Morphine, Fentanyl



School of Nursing (Palliative Care Network of Wisconsin, 2018) Version 1: 06/15/2019

RUTGERS

Pain Management




Prescription of Narcotics

- End of life care providers exempt from opioids regulations
- Federal and state laws exclude providers in the treatment of those being treated for cancer, palliative or hospice
- Rules may limit dispensing of opioids
- Make note to pharmacy patient EOL status

School of Nursing (Fehlberg, Broyles, Wu, & Halpern, 2018) Version 1: 06/15/2019

RUTGERS

Five Common Non-Pain Symptoms



Dyspnea
Nausea
Bowel dysfunction
Delirium
Fatigue

School of Nursing (Palliative Care Network of Wisconsin, 2018) Version 1: 06/15/2019

RUTGERS

Common Non-Pain Symptoms: Dyspnea

- Can be a symptom of many illness ex. CHF, COPD
- Assess for issues
- Use oxygen via nasal cannula
- Use fan or open windows
- Use opioids ex. IV Morphine
- Associating symptoms like cough can exacerbate SOB; treat with antitussives
- Scopolamine for excess secretions

School of Nursing (Palliative Care Network of Wisconsin, 2018) Version 1: 06/15/2019

RUTGERS

Common Non-Pain Symptoms: Nausea


- Causes:
 - Vestibular
 - Anticholinergic ex. scopolamine, antihistamine ex.
 - Bowel obstruction
 - Stimulate myenteric plexus ex. Senna
 - Infection
 - Anticholinergic antihistaminic, 5HT3 antagonists, Neurokinin 1 antagonist
 - Ex. Promethazine, Prochlorperazine
 - Dysmotility of upper gut
 - Drugs that stimulate 5HT4 receptors ex. Metoclopramide
 - Toxins
 - Antidopaminergic, 5HT3 antagonist ex. Prochlorperazine, Haldol, Zofran

School of Nursing (Palliative Care Network of Wisconsin, 2018)
Version 1.06/15/2019

RUTGERS

Common Non-Pain Symptoms: Nausea

- Non medication management:
 - Ginger
 - Peppermint
 - Deep breathing exercises
 - Exercise ex. Yoga, aerobics
 - Acupuncture
 - Spices: cinnamon, fennel powder, cumin
 - Avoid spicy food
 - Avoid drinking with meals
 - Sit up after eating



School of Nursing (Petro, 2017)
Version 1.06/15/2019

RUTGERS

Common Non-Pain Symptoms: Bowel

- Constipation
 - Decrease activity
 - Assess for issues ex. SBO
 - Opioid usage
 - Use of anticholinergics, antidepressants
 - Stress hydration
 - MiraLAX, lactulose, Senna
 - Enema: soap suds, mineral oil, Dulcolax
- Diarrhea
 - Common causes: chemo drugs, SBO, enteritis
 - Treat issue
 - Stress hydration
 - Bulk forming agent Kaopectate
 - Opioid Imodium can be use
 - Radiation enteritis: Cholestyramine
 - Probiotics

School of Nursing (Palliative Care Network of Wisconsin, 2018)
Version 1.06/15/2019

RUTGERS

Common Non-Pain Symptoms: Delirium

- Assess for possible causes:
 - Infection
 - Electrolyte abnormality
 - Oxygen level
 - Medication
 - Alcohol withdrawal
 - Immobility
- Management
 - Treat the causes
 - Get family involve for reorientation
 - Mobility
 - Medication: Haloperidol, risperidone, Lorazepam

School of Nursing (Palliative Care Network of Wisconsin, 2018)
Version 1.06/15/2019

RUTGERS

Common Non-Pain Symptoms: Fatigue


- Common symptoms in palliative care patients
- Review causes and medications
- Management:
 - Focus on reversal of cause
 - Glucocorticoid can be use in those at terminal stage of cancer or other terminal illnesses
 - Psychostimulants ex. Dextroamphetamine, modafinil, methylphenidate
 - Address low testosterone levels in men
 - Nonpharmacological treatment ex. Exercise, sleep hygiene

School of Nursing Bruera & Yennurajalingam (2017)


RUTGERS

Easy Communication Skills

- Assess patient/family knowledge of disease, treatment options
- Evaluate goals for the current disease state
- Discuss patient values and realistic expectation
- Provide knowledge on prognosis
- Be conscious of your own thoughts and emotions
- Be neutral
- Empathize
- Actively listen




School of Nursing (Delgado, 2017; Datta-Barua & Hauser, 2018)
Version 1.06/15/2019

 **Case Study: Dyspnea in COPD**


- HPI: Rita Usher is a 72 year old female who is an ex-smoker with 50 pack/years. She lives alone, has no children and is a widow. Rita has advanced COPD on continuous home oxygen at 2 L/min. She presents to ED with acute COPD exacerbation. This is Rita 3rd admission for respiratory distress within the last 2 months. On her last admission she opted to be followed by palliative care service after being in the intensive care and was intubated and extubated. During this admission she requires the need of BIPAP due to elevated CO₂ level. Her condition improved and she is on nasal canula.

School of Nursing (Adapted from McSteen, 2012)
Version 1, 06/15/2019

 **Case Study: Dyspnea in COPD**


- Physical Exam
 - Vitals: T 98.9f, BP 120/60, HR 98, RR 39, O₂ saturation 91% on 2 L NC
 - CNS: alert and oriented
 - HEENT: normocephalic, dry mucous membrane
 - Card: tachycardic S1S2, no murmurs, no edema, strong pedal/radial pulses
 - Pulm: bilateral lungs mild expiratory wheeze
 - GI: soft, nontender, + bowel sounds
 - GU: voiding
 - Extremities: cachectic, normal ROM, no edema

School of Nursing (Adapted from McSteen, 2012)
Version 1, 06/15/2019

 **Case Study: Dyspnea in COPD**

- Diagnostics
 - Chest x-ray: hyperinflation; no infiltrates or effusion
- Medications:
 - Duoneb q6h
 - Prednisone 10mg daily
 - Advair BID
 - Spiriva inhaler daily

School of Nursing (Adapted from McSteen, 2012)
Version 1, 06/15/2019

 **Case Study: Dyspnea in COPD Discussion**

- What is the issue?
- What key facts should be considered?
- What interventions can be used to reduced dyspnea?
 - Medications:
 - Non-medication intervention:

School of Nursing
Version 1, 06/15/2019



Appendix E

PCQN Usage Permission

Hello,

My name is Gesmene Ulysse. I am a doctorate student at Rutgers School of Nursing. I am trying to get in contact with Dr. Ross in regard to the tool that her and colleagues created the PCQN because I would like to use it for my project looking at new nurse practitioner's knowledge on palliative care. Is there anyway I can get a contact information so that I can get permission to use their tool? Thank you in advance for your time.

Sincerely,

Gesmene Ulysse

Response from Dr. Bourbon:

fbourbon@uottawa.ca

Tue 4/16/2019 10:26 AM

To:Gesmene Ulysse <ulysege@sn.rutgers.edu>;

> Hello Gesmene. I have looked after Dr. Ross correspondence for many

years. Dr Ross is deceased. You are welcome to use the PCQN in your

important project. Best wishes on your work. Frances

Appendix F

Palliative Care Quiz for Nursing

Palliative Care Quiz for Nursing: Created by Ross, McDonald, and McGuinness (1996) **Right Answer**

1. Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration.

True **False** Don't Know

2. Morphine is the standard used to compare the analgesic effect of other opioids.

True False Don't Know

3. The extent of the disease determines the method of pain treatment

True **False** Don't Know

4. Adjuvant therapies are important in managing pain.

True False Don't Know

5. It is crucial for family members to remain at the bedside until death occurs.

True **False** Don't Know

6. During the last days of life, the drowsiness associated with electrolyte imbalance may decrease the need for sedation.

True False Don't Know

7. Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain.

True **False** Don't Know

8. Individuals who are taking opioids should also follow a bowel regime.

True False Don't Know

9. The provision of palliative care requires emotional detachment.

True **False** Don't Know

10. During the terminal stages of an illness, drugs that can cause respiratory depression are appropriate for the treatment for severe dyspnea.

True False Don't Know

11. Men generally reconcile their grief more quickly than women.

True **False** Don't Know

12. The philosophy of palliative care is compatible with that of aggressive treatment.

True False Don't Know

13. The use of placebos is appropriate in the treatment of some types of pain.

True **False** Don't Know

14. In high doses, codeine causes more nausea and vomiting than morphine.

True False Don't Know

15. Suffering and physical pain are synonymous.

True **False** Don't Know

16. Demerol is not an effective analgesic in the control of chronic pain.

True False Don't Know

17. The accumulation of losses renders burnout inevitable for those who seek work in palliative care.

True **False** Don't Know

18. Manifestations of chronic pain are different from those of acute pain.

True False Don't Know

19. The loss of a distant or contentious relationship is easier to resolve than the loss of one that is close or intimate.

True **False** Don't Know

20. The pain threshold is lowered by anxiety or fatigue.

True False Don't Know

Appendix G

Case Study Sample

Case Study: Dyspnea in Congestive Heart Failure**Background:**

Jane is a 74-year-old woman who lives alone, a widow and has no children. She has systolic heart failure. She presents to ED with complaint of worsening SOB. She use nasal canula at 2L/minute continuously at home and reports that has not been helping her symptoms. She is admitted with acute congestive heart failure exacerbations. Patient was last admitted 1 month ago due to worsening shortness of breath. During that admission patient was referred to palliative care.

Physical Exam:

Vital signs: T 98.1F, HR 75, BP 103/68, RR 20, O2 saturation 91% on 2 L NC

- CNS: alert and oriented
- HEENT: normocephalic, dry mucous membrane
- Card: Regular S1S2, no murmurs
- Pulm: bilateral lungs coarse crackles
- GI: soft, nontender, + bowel sounds
- GU: voiding
- Extremities: normal ROM, bilateral lower legs +2 edema

Diagnostics:

- **Chest x-ray:** Overall, little change with stable prominent cardiac silhouette and signs of mild to moderate fluid overload.

Clinical question: Right answer

1. What is the issue?
 - Dyspnea at end stage of CHF
2. What key facts should be considered?
 - Patient comfort
 - Patient goals
 - Family understanding of diagnosis, stage of disease and treatment options
3. What interventions can be used to reduce dyspnea?
 - a. Medication that can be used for comfort of dyspnea:
 - Opioids: morphine
 - Lasix as needed for fluid overload
 - Scopolamine patch for excessive secretion
 - Bronchodilators
 - b. Non-medication intervention:
 - Nasal cannula
 - Fresh air
 - Use of fan
 - Position: sitting up

Adapted from Chan (2012)

Chan, G. K. (2012). Case 2.5: Dyspnea and heart failure. In M. L. Campbell (Ed.), Case studies in palliative an end of life care (pp. 117-127). Ames, IA: John Wiley & Sons.

Case Study: Dyspnea in Congestive Heart Failure #2**Background:**

Mathew is a 64-year-old man who lives with his wife. He has diastolic heart failure. He presents to ED via emergency services due to SOB. He has nasal canula at 2L/minute continuously at home and reports that has not been helping his symptoms. He is admitted with acute congestive heart failure exacerbations. Patient was last admitted 2 month ago due to worsening shortness of breath. During that admission patient was referred to palliative care.

Physical Exam:

Vital signs: T 98.1F, HR 79, BP 143/78, RR 22, O2 saturation 92% on 2 L NC

- CNS: alert and oriented
- HEENT: normocephalic, dry mucous membrane
- Card: Regular S1S2, no murmurs
- Pulm: bilateral lungs coarse crackles
- GI: soft, nontender, + bowel sounds
- GU: voiding
- Extremities: normal ROM, bilateral lower legs +2 edema

Diagnostics:

- **Chest x-ray:** Overall, little change with stable prominent cardiac silhouette and signs of mild to moderate fluid overload.

Clinical question:

4. What is the issue?

5. What key facts should be considered?
6. What interventions can be used to reduce dyspnea?
 - a. Medication that can be used for comfort of dyspnea:
 - b. Non-medication intervention:

Adapted from Chan (2012)

Chan, G. K. (2012). Case 2.5: Dyspnea and heart failure. In M. L. Campbell (Ed.), Case studies in palliative an end of life care (pp. 117-127). Ames, IA: John Wiley & Sons.

Appendix H

Professor Recruitment Script:


This is Gesmene Ulysse; she is a student in the Executive Weekend Model-DNP class. She is here today to introduce her project on Palliative Care. Please refer all questions to Gesmene.

Student Recruitment Script:

Hello, my name is Gesmene Ulysse. I am a student in the Executive Weekend Model-DNP class. I am here today to introduce my project on Palliative Care. Palliative care is a treatment plan that can be used in multiple settings but due to comfortability of providers seldom get used. I am looking to recruit participants for this project in which I will be assessing knowledge on palliative care and provide information on the topic. Participation on this project is strictly voluntarily. Please take a flyer. Thank you for your time.

Appendix J

Sample Handout



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Invitation to Participate in a Research Study:

Let's Talk Palliative Care

Are you curious about palliative care?
Would you like to know more?
If so, be part of this educational research on palliative care?
Looking for students in the Adult-Gerontology Primary Care Theory 1
didactic/practicum course
Need to be 18 and older
Program is of no cost to participants
Food will be provided

The purpose of the study is to educate participants on palliative care and formulate a plan of care for a palliative care patient
Participants will be asked to take a quiz/formulate a plan of care on palliative care; education will be provided on the topic; participants will be re-tested post the educational session and again 1 month later to assess for retention
Program will take a total of 60 minutes
Principal Investigator: Dr. Judith Barberic (~~barberic@rutgers.edu~~)
Contact Co-Investigator ~~Gesmene Ulyse~~ for additional information at: ulyse@sn.rutgers.edu
Location: Rutgers School of Nursing, 65 Bergen Street, Newark, NJ, 07107;
Classroom (TBD)
Date: xx/xx/2019
Time: xx/xx/2019

Rutgers, The State University of New Jersey

Appendix K

Consent

CONSENT TO TAKE PART IN A RESEARCH STUDY

TITLE OF STUDY: Among BSN-DNP students will an educational program on palliative care plans of care and symptom management have an improvement in the nurses' knowledge and elicit a change in practice of palliative care planning for seriously ill patients and families?

Principal Investigator: Dr. Judith Barberio

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. It is your choice to take part or not. After all of your questions have been answered and you wish to take part in the research study, you will be asked to sign this consent form. You will be given a copy of the signed form to keep. Your alternative to taking part in the research is not to take part in it.

Who is conducting this research study and what is it about?

You are being asked to take part in research being conducted by principal investigator, Dr. Judith Barberio and co-investigator, Gesmene Ulysse.

What will I be asked to do if I take part?

This project will ask participants to take a demographic survey which includes age, gender, area of practice, previous palliative care experience, years of RN experience, and prior palliative care education. The participants will be asked to take a survey and develop a plan of care on palliative care. There will be an educational session on palliative care given. The survey and plan of care will be given post the educational session and again one-month post to test for retention. The surveys, plan of care activities, and education on palliative care will take 60 minutes total to complete. Up to 60 subjects will take part in the study.

What are the risks and/or discomforts I might experience if I take part in the study?

There are minimal risks in participating in this study. Breach of confidentiality is a risk of harm, but a data security plan is in place to minimize such a risk. Also, some questions may make you feel uncomfortable. If that happens, you can skip those questions or withdraw from the study altogether. If you decide to quit at any time before you have finished the surveys or complete the case studies your answers will NOT be recorded.

Are there any benefits to me if I choose to take part in this study?

There is no direct benefits to you for taking part in this research other than an increase in knowledge about palliative care. You will be contributing to knowledge about BSN to DNP students' knowledge and practice challenges in palliative care.

Will I be paid to take part in this study?

You will not be paid to take part in this study.

How will information about me be kept private or confidential?

All efforts will be made to keep your responses confidential, but total confidentiality cannot be guaranteed.

- We will ask you to provide your name when you first sign up to participate in this program. This identifiable information will not be stored with your responses. Instead, your responses will be assigned a subject number which will be stored separately from your responses so others will not know which responses are yours. Names will not be attached to questionnaires. We will securely store the list of names associated with your number in a lock file box to be stored by the co-investigator which will be destroyed after data collection is complete. No information that can identify you will appear in any professional presentation or publication.

What will happen to information I provide in the research after the study is over?

- The information collected about you for this study will not be used by or distributed to investigators for other studies.

What will happen if I do not want to take part or decide later not to stay in the study?

Your participation is voluntary. If you choose to take part now, you may change your mind and withdraw later. You may leave without turning in a completed form or by turning in a blank or incomplete form. The quizzes will not count towards your grade and the course professor will not be present. Palliative care will not be part of your mid-term or final. You may also withdraw your consent for use of data you submitted, but you must do this in writing to the co-investigator, Gesmene Ulysse.

Who can I call if I have questions?

If you have questions about taking part in this study, you can contact the co-investigator: Gesmene Ulysse at ulysege@sn.rutgers.edu You can also contact my faculty advisor Dr. Judith Barberio at barberio@sn.rutgers.edu.

If you have questions about your rights as a research subject, you can call the IRB Director at: Newark HealthSci (973)-972-3608; or the Rutgers Human Subjects Protection Program at (973) 972-1149.

AGREEMENT TO PARTICIPATE**1. Subject consent:**

I have read this entire consent form, or it has been read to me, and I believe that I understand what has been discussed. All of my questions about this form and this study have been answered. I agree to take part in this study.

Subject Name (printed): _____

Subject Signature: _____ Date: _____

2. Signature of Investigator/Individual Obtaining Consent:

To the best of my ability, I have explained and discussed all the important details about the study including all of the information contained in this consent form.

Investigator/Person Obtaining Consent (printed): _____

Signature: _____ Date: _____

Appendix K

Sign-up Sheet



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Sign Up Sheet



Name	Name
1.	31.
2.	32.
3.	33.
4.	34.
5.	35.
6.	36.
7.	37.
8.	38.
9.	39.
10.	40.
11.	41.
12.	42.
13.	43.
14.	44.
15.	45.
16.	46.
17.	47.
18.	48.
19.	49.
20.	50.
21.	51.
22.	52.
23.	53.
24.	54.
25.	55.
26.	56.
27.	57.
28.	58.
29.	59.
30.	60.

Appendix L

Demographic Survey



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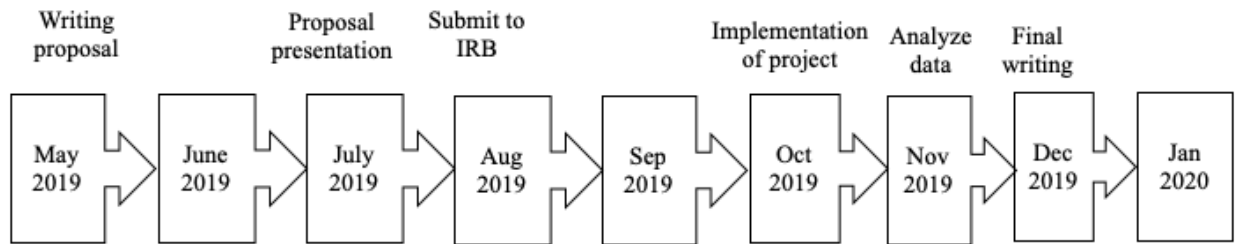
Demographics

- 1. Age**
 - a. 18-24 years
 - b. 25-30 years
 - c. 31-35 years
 - d. 36-40 years
 - e. 41-45 years
 - f. 46-50 years
 - g. 51-55 years
 - h. 56+
- 2. Gender**
 - a. Male
 - b. Female
- 3. Area of practice**
 - a. Inpatient hospital:
 - Medical-surgical
 - Critical care
 - Oncology
 - Cardiac-Telemetry
 - Obstetrics and Gynecology
 - b. Long Term Care
 - c. Outpatient
 - d. Other
- 4. Previous palliative care experience**
 - a. Yes
 - b. No
- 5. Previous palliative care education**
 - a. Yes
 - b. No
- 6. Years of registered nurse experience**
 - a. 1-5 years
 - b. 6-10 years
 - c. 10-15 years
 - d. 16+

Appendix M

Timeline

Project Proposal Timeline: May 2019 to Dec 2020



Appendix N

Sample budget

Expense	Cost		Total cost
Education material print out	50 @ 0.15	\$	\$7.50
Food (Panera) for ~35	\$500	\$	\$500
Dissemination posters	\$75	\$	\$75
Statistician	\$50 x 2 hours	\$	\$100
Unexpected cost	\$50	\$	\$50
Total budget		\$	\$732.50