11-22-2021

Increasing Oncology Nurses Knowledge of Palliative Care and Trigger for Patients with Stage II and III Cancers: A Quality Improvement Project

Jiselle Silva
FIU, jsilv048@fiu.edu

Recommended Citation

Silva, Jiselle, "Increasing Oncology Nurses Knowledge of Palliative Care and Trigger for Patients with Stage II and III Cancers: A Quality Improvement Project" (2021). *Nicole Wertheim College of Nursing Student Projects*. 24.
https://digitalcommons.fiu.edu/cnhs-studentprojects/24

Increasing Oncology Nurses Knowledge of Palliative Care and Trigger for Patients with Stage II and III Cancers: A Quality Improvement Project

A Scholarly Project Presented to the Faculty of the
Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements
For the Degree of Nursing Practice

By

Jiselle Silva, MSN, APRN, FNP-BC

Doctor of Nursing Practice Lead Professor
Deborah Witt Sherman, PhD, APRN, ANP-BC, ACHPN, FAAN

Clinical Preceptor
Crystal N. Allen, DNP, APRN, PMHNP-BC

Approval Acknowledged:
_______________________________, DNP Program Director
Date: _________________________

Acknowledgements

I would like to thank my mom Sory, dad Eric, brother Eddie, and boyfriend Christian Marrero for all of their love and support throughout my DNP journey. A huge part of this process has been Chrissy. I want to thank her for all of her help and support since day one; Without her none of this would be possible. Dr. Sherman is the palliative care expert, and I am beyond grateful for her guidance with my DNP project. She has allowed me to become the definition of a scholar. I am blessed to have her as my professor.

Abstract

BACKGROUND: Until recently, palliative care has been synonymous with hospice care for patients with end-stage cancer and other terminal illnesses. However, distinguishing between palliative care services and hospice care for the end of life has begun to slowly increase the understanding of patients and healthcare providers on the benefits of palliative care before the end of the disease trajectory. Early palliative care referrals are beneficial to patients at the onset of an advanced cancer diagnosis and can provide more benefits when referred earlier in the disease trajectory using triggers to alert providers for a patient's need of palliative care services. Still, there is a gap in the knowledge of the benefits of early palliative care and actual early referrals for patients. The purpose of this project was to examine how in-service education using an information guide regarding palliative care and triggers for early palliative care referral increase Registered Nurses' (RN) and Nurse Practitioners' (NP) knowledge of palliative care and triggers for patients with Stage II and Stage III cancers, as compared to their prior knowledge regarding palliative care and triggers?

METHODS: Data was collected from a sample of 23 Oncology RNs and NPs using the Palliative Care Quiz for Nursing (PCQN) instrument modified to include questions assessing knowledge about early palliative care triggers in a pre-/post-test design.

RESULTS: The scores of the pre- and post-intervention surveys were analyzed in GraphPad. The results of the QI project's pre- and post-intervention surveys showed improvement in Oncology RN's and NP's knowledge about palliative care and triggers for early palliative care referral, attending an education in-service.

CONCLUSIONS: In-service education for nurses in Oncology can assist in nurses realizing that palliative care may be needed at any point in a disease trajectory and how using a trigger protocol for symptoms related to physical, emotional, mental, and spiritual suffering will help to standardize referrals to palliative care. Future research is needed to examine the early referral rates to palliative care for Stage II and III Oncology patients before and after the implementation of trigger protocols and subsequently, the impact of the usage of palliative care services on the quality of life of patients in early and advanced stages of cancer.

Keywords: early palliative care, triggers, palliative care

Contents

I. Introduction

Cancer is one of the leading causes of death in the world (WHO, 2018). According to the World Health Organization (WHO) (2018), over 9 million people globally died of some form of cancer. In the United States, cancer is the second cause of death among men and women (CDC, 2020). The Centers for Disease Control and Prevention (CDC) estimated that in 2018, almost 600,000 people died of cancer. Although a diagnosis can be a harrowing experience for an individual, a cancer diagnosis is not always a death sentence. Through medical advancements, death rates from cancer have trended downward since 2009 (CDC, 2020). Still, there are many cancer patients who receive an advanced cancer diagnosis which can create feelings of distress and fear.

Palliative care is a specialty aimed at improving the quality of life of patients with progressive, chronic, or life-threatening illnesses (Hawley, 2017). According to Goldman and Schafer (2016), palliative care was established as a specialty to relieve the burden of illness by treating the overall suffering of patients and families. Clinicians who are reluctant to refer patients to palliative care have cited reasons such as not wanting to upset patients and feeling as they are failing their patients (Hawley, 2017). Despite the benefits of palliative care for patients and families, including improved ability to maintain daily activities, increased acceptance of their diagnosis and willingness to engage in therapy, and increased discussions concerning advanced directives, there are clinicians who refuse to refer patients to palliative care until late in the cancer trajectory (Temel et al., 2016; Hawley, 2017). Hesitance in referring palliative care may also come from the previous practice of referring palliative care only when curative or modifying treatment was no longer working (Senderovich & McFayden, 2020). For patients, reasons not to utilize palliative care range from lack of education about the service to equating palliative care with hospice/end of life care (Dalhammar, Malmstrom, Schelin, Falkenback, & Kristensson, 2020). In subscribing to these beliefs, clinicians are missing out on enhancing the quality of life of cancer patients by hesitating to refer patients to palliative care earlier in the cancer trajectory before Stage IV disease.

Background

Although all individuals with life-threatening illnesses, or older age, can benefit from palliative care, cancer makes up almost 35% of the patients who use the service (Oliver, 2017). The specialty practice of palliative care is believed to have been established in the 1960s by Dame Cicely Saunders. After witnessing the treatment of patients once clinicians were unable to provide continued life-prolonging care, Saunders founded the St. Christopher's Hospice in the United Kingdom (Garcia-Baquero Merino, 2018). Saunders was focused on providing care to terminally ill and dying patients that eased their physical, emotional, and spiritual pain, as well as eased the burden on families. However, the terms "palliative care" and "hospice care" have remained synonymous until the last decade when healthcare professionals have emphasized the distinction between the two (Hawley, 2017). Hospice care is offered when patients have a life expectancy of six months or less while also ceasing life-prolonging treatment (Goldman & Schafer, 2016). In contrast, palliative care services can begin at any time during an illness and used throughout the illness trajectory.

Palliative care involves and interprofessional team of experts. These teams can include primary care physicians, pain management specialists, advanced practice nurses, registered nurses, chaplains, social workers, and other professions such as pharmacists, and occupational and physical therapists who are extended members of the team. Each member of a palliative care team is involved in relieving the symptom burden of the patient. Palliative care is supportive of the physical, emotional, social, spiritual, and cultural needs of patients with cancer, end-stage organ disease, or neurodegenerative disorders and their families. Many patients with terminal illnesses are cared for by family members who spend at least 20 hours a week caring for the patient's needs (Agarwal & Epstein, 2017). The burden of care for untrained family members without the addition of palliative care can result in burnout, depression, anxiety, and negligence among family caregivers (Agarwal & Epstein, 2017).

Scope of the Problem

The World Health Organization (2018) estimates that about 40 million people around the world are in need of palliative care services. However, the same report finds that only 14% of those in the United States who need the service use palliative care. According to the Center to Advance Palliative Care (CAPC) (2020), the overall grade for the United States in the use of palliative care is a B which means that palliative care is a used service and does have wide access, but that grade has not moved forward since 2015. In Florida, a 2018 report on data from 2016 found that over 50% of admissions to palliative care and hospice centers were patient with cancer diagnoses (National Hospice and Palliative Care Organization, 2020). In a 2016 report compiled by the Palliative Care Ad Hoc Committee in Florida, it was reported that Miami-Dade County was among one of the counties with the highest need for more palliative care services.

Consequences of the Problem

Advanced cancer patients who do not use palliative care services are more likely to experience decreased quality of life, even early in their disease trajectory. With the advancement of technology and many research resources online for patients, there is a higher probability that in an internet search about an advanced cancer diagnosis, the terms "palliative care" and "hospice" are found together which creates a sense of dread and creates more of a resistance when referred later in the disease trajectory (Hui et al., 2016). According to the National Institute for Health and Care Excellence (NICE) (2019), not referring patients to palliative care services is a risk factor for more hospital and emergency admissions, depression, and increased medical costs. However, a large consequence of not referring patients to palliative care services earlier in their diagnosis is the probability of the patient and/or families refusing the services in later disease stages. Referrals to palliative care services include education about the benefits of palliative care.

Significance of the Problem

Patient-centered care is part of quality health care (Seelbach & Brannan, 2020). A part of patient-centered care is offering concurrent alternatives to treatments for life-threatening illnesses such as advancing cancer (Schroeder & Lorenz, 2018). Palliative care is a service that can be offered along with curative care, as well as when patients decline life-prolonging treatments (Senderovich & McFayden, 2020). Gallagher, Passmore, and Baldwin (2020) discuss that not educating patients and referring them to palliative care services early in the cancer trajectory could be considered a medical error. Late referral to palliative care can prolong suffering of patients and give them a lower quality of life as well as a shortened lifespan (Gallagher, Passmore, & Baldwin, 2020).

Knowledge Gaps

Researchers have noted the benefits of early referral to palliative care. According to Chidiac (2018), early palliative care improves patient survival and views on advanced care planning as well as improving patient satisfaction. Symptom burden, such as fatigue and pain are also improved (Gallagher, Passmore, & Baldwin, 2020). However, Chidiac (2018) noted there are limited studies that address early referral for cancer patients. There are studies highlighting beneficial protocols that involve triggers in a patient's record as to when to refer them to palliative care services. Collins et al. (2018) reported that although patients and their needs should ultimately determine when to consider palliative care, triggers such as health service use and symptom severity to indicate a need for palliative care services, can reduce hospital readmission. Chai (2017) mentions that using triggers during consultation would relieve some of the burden of the clinician to rely on subjective data in determining when to refer patients to palliative care. These studies are helpful in determining a palliative care referral protocol for the project. Though there are clear benefits for the patient regarding palliative care, there are some concerning knowledge gaps. There are for few studies determining the best time frame in which to refer a patient to palliative care. Another significant gap in the knowledge is how educating oncology nurses about triggers for early referrals to palliative care services would help them to have more confidence in developing a system to determine the best timing for palliative care referrals with patients (Antonacci et al., 2020).

II. Summary of the Literature

Search Strategy

A literature review was conducted to research primary studies, systematic reviews, and meta-analysis relevant to research question. Two databases were used, PubMed and the Cumulative Index to Nursing and Allied Health Literature (CINAHL), as well as Google for information on worldwide and national cancer institutions. The keywords used in the searches were advanced cancer, cancer stages, symptom burden, palliative care, early palliative care, pain, advanced directives, quality of life, and referral. The inclusion criteria for the review included publication dates between 2017 and 2021 with some studies published before 2017 used as reference. Other inclusion limitations were English language articles and study participants of all ages. Exclusion criteria included articles using the hospice or end-of-life care apart from discussing the changes made in distinguishing between the two practices of hospice and palliative care.

The initial search on PubMed resulted in 987 articles and the CINAHL search resulted in 345 articles. After reviewing the titles and abstracts of the articles and applying the inclusion and exclusion criteria, the articles were examined to determine the relevance of the information to the research topic. A total of 18 articles were used in the literature review as well as information from the American Cancer Society and the National Cancer Institute.

Prevalence of Cancer and Risk Factors

The American Cancer Society (ACS) estimates that 1.9 million new cases of cancer will be diagnosed and over 600,000 people will die from cancer in 2021 (ACS, 2021). The National Cancer Institute (NCI) estimates that in men, 43% of all new cancer diagnoses in 2020 were attributed to prostate, colorectal, and lung cancer (NCI, 2020). In women, breast, colorectal, and lung cancer make up 50% of all new cancer diagnoses in 2020 (NCI, 2020). The leading type of cancer that causes death in both men and women is lung and bronchus cancer with 22% of deaths in both sexes being from lung and bronchus cancer (ACS, 2021). Although several thousand people die a year from cancer in the United States, there are also high rates of survivorship in the most common types of cancer among men and women (ACS, 2019). According to the ACS (2019), there were 3,650,030 prostate cancer survivors and 3,861,520 female breast cancer survivors in 2019.

There are several risk factors for the development of cancer including modifiable and unmodifiable risk factors. Modifiable risk factors are risk factors an individual can control using healthy lifestyle methods, pharmacological methods, or other methods to lessen the risk of developing a chronic condition or disease (Yusuf et al., 2019). Unmodifiable risk factors are risk factors that cannot change or are not easily modifiable such as age, family history, or environmental factors. The risk factors for certain types of cancers can vary such as tobacco use increasing the chances of developing lung cancer; however, the general risk factors of cancer include age, weight, family history, tobacco or alcohol use, sun exposure, and exposure to harmful environmental dangers like asbestos (ACS, 2019). The chances of developing cancer increase as an individual has multiple risk factors or participates in risky lifestyle habits. Although risk factors act as a predictability tool, there are some individuals who develop cancer without associated risk factors.

Cancer Stages

Cancer classifications are used to explain the extent or severity of cancer. According to the National Cancer Institute (NCI) (2015), there are several types of classifications or staging systems. The most used system is the TNM system created by the American Joint Committee on Cancer (AJCC) to explain the size and spread of the tumor (T), the lymph nodes affected (N), and the spread of the cancer to other areas of the body, or metastasis (M) (NCI, 2015). Another commonly used staging system is classifying cancer with one of five stages, Stage 0-IV. This staging system classifies the cancer in a simplified way. The stages of cancer are defined as (Rosen & Sapra, 2020):

- Stage 0 – carcinoma in situ; precancerous or abnormal cells that have not spread farther than the area they are found.
- Stage I – abnormal cells have become cancer but remains in the localized area without spreading further.
- Stage II – cancer has become larger but has not spread to other parts of the body.

- Stage III – cancer has grown more, spread deeper into the local or regional tissue, or spread to the lymph nodes.
- Stage IV – metastatic cancer; cancer has spread outside the area of origin and into other parts of the body.

Palliative Care and Hospice

Palliative care and hospice or end-of-life (EOL) care are still being used synonymously by health care professionals and researchers today. While performing the literature review, several studies were excluded because the authors equated palliative care with EOL care which has posed a problem with early referrals to palliative care programs both on the clinician side and on the patient side. There is a reasonable explanation for this interchangeable use of the term since many past protocols of treating cancer or other life-threatening illnesses did not introduce palliative care options until the curative intervention options were no longer feasible (Chiag, Lee, & Kao, 2019). The interchangeable use of the terms “palliative care” and “hospice” or “end of care” has been shown to have created a type of taboo around mentioning palliative care programs (Chiag, Lee, & Kao, 2019).

Though the use of “palliative care” and “hospice care” have been used as interchangeable terms, there has been advancement in distinguishing the definitions of the two services. According to Hawley (2017), hospice care is now being understood to refer to services solely for people who are at the end-stage of their illness with a life expectancy of six months or less and are no longer seeking curative treatments for their primary cancer diagnosis, but aggressive management of symptoms related to the disease or treatment. Furthermore, hospice covered under Medicare has strict rules that have been used to distinguish the services as far as payment for the services and the definition of when it should be used. When an individual decides to transition from curative cancer therapies to hospice, they are no longer eligible to have those treatments covered by Medicare although palliative care chemotherapy or radiation may be used to modify symptom burden from cancer such as pain or dyspnea (Sherman, 2019). While the definitions of palliative care are becoming more tailored toward the use of the program concurrent with curative or maintenance services, there are healthcare professionals still wary of referring patients due to deficient knowledge of services provided by palliative care professionals and the lack of time spent in palliative care programs (Hawley, 2017).

Referral issues with palliative care can also come from the lack of knowledge regarding palliative care of patients as well as providers. Again, the lack of awareness has much to do with the association of hospice care and palliative care; for individuals may hear a mention of palliative care and they immediately think death or EOL care. Shalev et al. (2018) surveyed individuals in New York and found that many respondents either had no knowledge of service provided either by palliative care or hospice programs and their uses. They associated palliative care programs with "giving up" and dying or did not understand palliative care services can be used across the illness trajectory even when curative treatments are being given. Because of these misconceptions, researchers such as Dai, Chen, and Lin (2017) have suggested doing away with the term "palliative care" and replacing it with "supportive care" to better describe the services available.

Palliative Care Services and Benefits

Palliative care services include interprofessional teams who provide physical, emotional, social, spiritual, and practical support to an individual and their family (Koesel et al., 2019). Though an individual's palliative care needs, and preferences may determine the members of the palliative care team who play a leading role dedicated to the support of the patient, palliative care teams usually involve physicians, pain management, nurses, chaplains, case workers, social workers and other health professionals to address patient and family needs across the illness experience (Koesel et al., 2019). Palliative care is about promoting quality of the patient as they go through treatments (Koesel et al., 2019). Cancer and cancer treatments can negatively affect not only the physical, emotional, social, and spiritual well-being of patients and their family members (Sherman, 2019).

Symptom Burden

Symptom burden is used to describe how the symptoms of a disease or illness impacts the patient. Though healthcare has made a shift more to patient-centered care and the wishes and preferences of patients are being addressed, Gill, Chakraborty, and Selby (2012) noted that symptom burden is more generally noted as the number of symptoms experienced at a time. Gill, Chakraborty, and Selby (2012) also explain the importance of understanding the burden of symptoms, specifically how those burdens can affect the patient's quality of life as well as life expectancy. According to a systematic review conducted by Haun et al. (2017), early palliative care had a significant positive impact on the patients' quality of life, as measured by pain and symptom burden, as compared to usual care without palliative care interventions. Themes found in a study about common patient definitions of symptom burden included the inability to participate in daily activities, psychological suffering, anxiety about impending death, the inability to return to their "normal" self, and drug dependency (Gill, Chakraborty, & Selby, 2012).

Despite the understanding that symptom burden is an issue in all stages of cancer from the disease itself or resulting from treatment, Bubis et al. (2018) report that most studies of symptom burden focus mainly on patients in late and end-stages of the disease. Bubis et al. found that symptom burden is also a concerning problem within the first month to a year after an initial cancer diagnosis. Patients reported experiencing life-altering symptoms such as extreme fatigue, anxiety, change in feeling of well-being, and mood disorders throughout the first few months after diagnosis (Bubis et al., 2018). For many patients, with or without treatment, the symptom burden continues to worsen through the advancement of the disease. The earlier recognition of symptom burden and the impact in the patient's life is important in managing the supportive care given to the patient, such as palliative care. According to both Verkissen et al. (2019) and Bubis et al. (2018), treating the symptom burden of patients earlier in the cancer trajectory before the diagnosis of advanced disease should become a standard practice of care.

Pain Management

Pain is subjective and is often based on an individual's definition of pain and discomfort. Pain is multidimensional as is suffering and both pain and suffering are interconnected. Pain is a combination of the patient's experiences on a biological, psychological, and sociological level (Trachsel, 2020). A patient may not feel a measurable amount of what they define as physical pain but may feel a high degree of emotional or mental pain (Granek et al., 2019). Emotional pain or distress as well as mental pain or distress can also manifest as physical pain symptoms. According to van Boekel and colleagues (2017), there are seven dimensions of pain: physical, sensory, behavioral, sociocultural, cognitive, affective, and spiritual. The physical dimension is essential an individual's perception of pain and how the person experiences pain such as a stabbing or burning sensation. The sensory dimension is the location and how intense the pain is for a person. The behavioral and sociocultural dimensions are concerned with how the patient expresses pain or their expressed need for pain management. The cognitive dimension is how the person is motivated to or not motivated to relieve their pain and how pain can impair an individual's ability to function. The spiritual dimension concerns the meaning the patient places on their experience with pain regarding whether they believe a higher power may be putting them through the pain as a lesson (Silkman, 2008).

Granek et al. (2019) report that high levels of pain can increase the likelihood of suicide or decrease the will to live in cancer patients. Mental and emotional distress was the highest cause of physical pain, as well as the reverse in which pain caused the highest levels of mental and emotional distress (Granek et al., 2019). However, one of the benefits of palliative care is various methods of pain management therapies are considered to address the multidimensional aspects of pain (Granek et al., 2019). In many palliative care programs, pharmacists are part the interprofessional team to prescribe the most effective pain management medications given after a comprehensive pain management assessment by the palliative care team. Patients can benefit from integrative pain management therapies such as acupuncture, practicing meditation, and being prescribed medical marijuana in states that allow for the medicated use of the substance (Scarborough & Smith, 2019). Psychotherapy and psychologists are also part of a palliative care team and can help manage the mental and emotional distress that exacerbates pain through counseling services (Scarborough & Smith, 2019).

Advance Directives

Although the goals of palliative care are to support the patient, palliative care across the cancer trajectory, including all cancer stages can also be used to help patients feel more comfortable discussing goals for the end of their life and advance directives for care either to describe when they may want to end curative treatments or when the end of life becomes imminent (Woollen & Bakken, 2017). Advance directives are the written wishes of a person concerning medical treatment during the trajectory of a disease. These can include living wills, planning of wishes for treatments if their disease advances enough to render them incapable of expressing their wishes, and wills to express their wishes after death (Woollen & Bakken, 2017).

According to Buiar and Goldim (2019), some health professionals believe the discussion of advance directives and end-of-life care cause patients higher levels of distress. But Buiar and Goldim (2019) also found that patients want more realistic discussions about what they should do to prepare for the possibility that their cancer treatments may not cure or manage the disease for a prolonged period of time. Beginning palliative care earlier in the cancer trajectory has been found to increase the chances of a patient planning for care in advance and preparing the needed documentation associated with the end of life (Buiar & Goldim, 2019). Advance directives and discussions around goals of care are favorable because these discussions can decrease stress in patients, their family, and care givers and improve the communication between patients and their physicians during the trajectory of their illness (Woollen & Bakken, 2017).

Family Caregiver Burden

Cancer is distressful for the patient but can also be devastating for the family as well. In many cases, patients with any stage of cancer are often cared for by informal family caregivers. These familial caregivers are usually given no training yet act as the advocate for their family member. According to Sherman (2019), family caregivers are a neglected population of people in the discussion around cancer and the burden the disease can cause. Sherman (2019) continues by discussing the emphasis the National Consensus Guidelines for Quality Palliative Care focuses on the importance of the patient and family as a “unit of care.” In another article, Sherman and McMillan (2015) state that an estimated 74% of cancer caregivers provide around the clock care which can create burnout, emotional distress, and financial hardship for the caregivers. Palliative care services are also used to support the families and caregivers by offering emotional and practical support such as counseling, financial planning, and caregiver education.

Triggers for Early Palliative Care Referrals

A common issue concerning the early referral of palliative care is the availability of palliative care specialists and access to the services provided by palliative care. Basing a patient's need for early palliative care referral on the subjective feelings of the clinician can cause a delay in palliative care referral (Fujisawa et al., 2020). According to Chai (2017), the development of triggers to specify sub-groups of patients who were need of early palliative care referrals can alert a clinician to the possible need for a palliative care referral. As the clinician discusses symptoms and notes the objective observations in the patient's electronic health record (EHR), the noted symptoms can trigger a notification for the possible intervention of palliative care referral if the patient meets one or more of the pre-determined symptoms (Fujisawa et al., 2020).

The use of triggers to signal the need for palliative care is generally viewed as helpful in many different areas of healthcare. Patel, Gorawara-Bhat, Levine, and Shega (2012) explained that during focus groups on the attitudes and experiences of nurses in using palliative sedation, nurses suggested triggers as a form of decision making when to start palliative care between the clinician and the patient or the patient along with their caregivers. As an overall rule, the nurses suggested symptom's experienced by the patient that would trigger the need for a palliative service such as sedation included intractable physical symptoms, distressing or severe psychological or emotional symptoms, the patient's expressed wishes for sedation either verbally or through advanced directives, and the patients' families' distress concerning the suffering of the patient (Patel, Gorawara-Bhat, Levine, & Shara, 2012).

Wysham et al. (2017) conducted a study with participants of mixed professions such as physicians and bedside nurses about the use of triggers for unit-based palliative care. The overall feeling of the participants was that triggers could be a useful tool in determining the patients in the most need for palliative care. However, the ICU physicians felt that those who were tasked with consulting referrals or administering the palliative interventions should have heavy input into the trigger symptoms and that they should have the ability to override the referral even if a patient's symptoms triggered the referral. A theme that occurred in open-ended questions given to participants was the difference in opinion in whether nurses should have the ability to approve referrals (Wysham et al., 2017). Attendings and ICU physicians felt that nurses should not have the ability to approve all referrals and nurses felt the opposite of that opinion, citing that only allowing attending or physician approval would limit palliative care access for patients in need (Wysham et al., 2017). Triggers are also useful in assisting nurses with the confidence to suggest the need for palliative care for patients with other clinicians. Kirby, Broom, and Good (2014) studied the role of the nurse in transitioning patients to palliative care and found that many nurses felt confident in their proactive approach to refer patients to palliative care. Triggers allow for a more standardized method of determining when the best time is to approach the topic of palliative care with patients and clinicians alike.

III. Goal, PICO Clinical Question, SMART Outcomes Goal

Earlier referrals to an interdisciplinary palliative care program are becoming increasingly essential to providing the best possible care for patients with life-threatening illnesses (Gradwohl & Brant, 2015). The goals of the DNP project are to increase Registered Nurses' (RN) and Nurse Practitioners' (NP) knowledge of palliative care and triggers for early palliative care referral for patients with Stages II and III of cancer, by providing education on palliative care and triggers for Oncology patients through an in-service education with the use of an educational information guide.

PICO Question

Earlier referrals to an interdisciplinary palliative care program are becoming increasingly essential to providing the best possible care for patients with life-threatening illnesses (Gradwohl & Brant, 2015). The clinical question for the quality improvement project was “For Registered Nurses (RN’s) and Nurse Practitioners (NP’s) working on the Oncology Unit, does in-service education using an education information guide regarding palliative care and triggers increase nurses’ knowledge of palliative care and triggers for early palliative care referral for patients with Stage II and Stage III cancers, as compared to RNs and NPs prior knowledge?”

(P)opulation – RN’s and NP’s working on the Oncology Unit
(I)ntervention – in-service education regarding palliative care and early palliative care triggers for Oncology patients using an educational information guide
(C)omparison – Prior RN and NP knowledge of palliative care and triggers
(O)utcome – Increase in RN’s and NP’s knowledge of palliative care and triggers for patients with Stage II and Stage III cancers

Objectives

The objectives of the DNP project are to: educate nurses about palliative care and triggers for early palliative care referrals by developing an educational, evidence-based information guide for RNs and NPs on the Oncology Unit.

SMART Goals and Outcomes

A SMART goal is a mnemonic acronym or tool is that is used to guide and achieve a specific goal. These goals were first developed for the business and organizational industry. The acronym SMART uses each letter to stand for (S)pecific, (M)easurable, (A)chievable, (R)ealistic, and (T)imed. According to Bailey (2017), SMART goals should be motivating, based on the mastery of the individual, and challenging without setting up the individual for failure. The SMART goals for the proposed DNP project are:

- Create an evidence-based in-service using an educational informative guide about palliative care and triggers for early palliative care referral by July 14, 2021.
- Evaluate the knowledge of RNs and NPs of the Oncology Unit regarding palliative care and triggers for early referral to palliative care services for patients with a Stage II and III cancer three weeks before incorporation of an early palliative care educational informative guide to identify triggers that will be needed to consult the palliative care service by August 30, 2021, and the units palliative care referral rates.
- Review with RNs and NPs during the change-of-shift huddle the palliative care and trigger information guide for one week from September 26th to October 7th.
- Evaluate knowledge of palliative care and triggers for early referral of RNs and NPs, and unit palliative care referral rates three weeks post intervention November 20th.

IV. Organizational Assessment and SWOT Analysis

Jackson Memorial Hospital (JMH), located in Miami, Florida, is the central facility of the Jackson Health System, a major healthcare system in Florida. JMH is a tertiary hospital, the largest in Florida, with 1,500 beds and one of the largest public hospitals in the United States (Jackson Health System, 2021). The hospital is a research and teaching facility associated with University of Miami Miller School of Medicine. The oncology department at JMH has many different specialties regarding cancer and treatments for patients (Jackson Health System, 2021).

Jackson Memorial Hospital's Oncology Unit consists of 48 in-patient beds for patients receiving surgical oncology, chemotherapy infusions, supportive management such as blood transfusions, prophylactic antibiotic care, electrolyte replacements, and patients with sepsis admitted to a 12-bed oncology stepdown unit. The most common cancer and oncological surgeries are bladder cancers post ilio-conduit surgery, renal cancer post nephrectomy, lung cancer post Video Assisted Thoracic Surgery and pancreatic cancer post Whipple procedure, that generally account for 15 out of the 48-patients on the unit. The most common blood cancer for which patients are treated on this unit is Acute Myeloid Leukemia (AML). AML is a blood cancer with an excess amount of immature white blood cells that progresses rapidly and requires immediate and aggressive treatment such as chemotherapy, blood product transfusions, and infection prevention and management. Septic patients account for a high percentage of patients with increased length of stay is related to the high number of neutropenic patients with AML who also have the most symptom burden such as fatigue, recurrent infections, bleeding, nausea, bone and bone marrow pain, and the psychological aspect of fear, stress, anxiety and depression. The average length of stay from initial diagnosis of AML is one month due to the initiation of aggressive chemotherapy and supportive measures to achieve the primary goal of infection prevention and active bleeding but is prolonged up to one week post initiation of aggressive antibiotics depending on the severity of sepsis.

Stakeholders

There are both internal and external stakeholders for the project. The internal stakeholders include the oncology department physicians and nurses at Jackson Memorial Hospital who have high interest and influence on the project as they are participants of the proposed project. They will receive palliative care education to enhance their knowledge and attitudes regarding early palliative care referrals. The nurses and physicians also have influence on the creation of standards and protocols in the Oncology Department. Jackson Memorial Hospital has both high power and high influence on the project as well. The directors of the hospital must approve the proposed project and the results of the projects can be used to influence the Oncology Department in improving the quality of their patient care by early palliative care referrals.

The external stakeholders are the oncology patients and their families. According to 2021 data, Florida has the second highest cancer burden in the United States (Florida Health, 2021). In Miami-Dade County, there were 392 deaths attributed to cancer per 100,000 deaths every year between 2015 and 2017 (Miami-Dade Matters, 2020). The results of the proposed project can determine how cancer patients at Jackson Memorial are referred to palliative care programs which can influence their quality of life. The families of the cancer patients are also stakeholders as family members are often the caregivers for patients and palliative care programs, especially early referrals, will benefit them as well.

At JMH, there are two hematology oncologists who work with a team of six Nurse Practitioners on this oncology unit. The Nurse Practitioners complete the initial patient consult and then the oncologist does his/her own initial consult in collaboration with the Nurse Practitioners; the oncology team then collaborate in providing patient care. There are two attending physicians that divide the unit and round on the patients daily across a 24-hour period. There are also a variety of surgical oncologists depending on the surgical procedure that is being performed. On this unit, there are 10 to 12 registered nurses who work during the day shift, and 8 or 9 nurses who work during night shift, as well as six nurse practitioners. Registered nurses have either an associate’s degree or bachelor’s degree in nursing and nurse practitioners either have a master’s degree or a doctoral degree. This unit has four social workers who divide the unit and attend to the patients’ needs and arrangements, such as insurance information, processing of advance directives, and arrangements needed for discharge, among others. The unit has one chaplain who rounds on the patients depending on their request; if patients request a specific religion preference, the chaplain will arrange the service.

Palliative care is an important service to incorporate on any medical unit, especially on the oncology unit. This unit refers patients to the palliative care service when the patient has an end-stage or terminal condition. The Oncology Unit does not have a specific palliative care team on the unit, but the palliative care service responds to the consults within 24-hours. The institution and healthcare personnel are open to the palliative care service and recognize its benefits to patient care regarding the provision of supportive treatment in conjunction with cancer therapies. Palliative care consults are encouraged by the RNs and NPs to oncology team, including the oncologists and the attending physicians. However, the attending physicians on the unit most often make the referral to palliative care before oncologists or the oncology team. The oncology team focuses on continuation of aggressive treatment options rather than offering or suggesting a palliative care referral for aggressive symptom management and discussion of goals of care.

On the Oncology Unit, patients with solid tumor cancers, such as pancreatic, lung, bladder and the blood cancers, such as AML, Multiple Myeloma, Hodgkin’s and Non-Hodgkin’s Lymphoma are referred to palliative care when there is perceived suffering. During the organizational assessment, the RNs on this unit have expressed when and how the palliative care team should be included in the patient’s care during the organizational assessment. Out of 12 registered nurses, 9 nurses believed the palliative care service should be included in the treatment of care for all patients diagnosed with cancer at a stage II level. It was the overall perception that palliative care was included when the patient was already experiencing symptoms related to their disease and the aggressive treatment that the patient is currently receiving. The overall consensus of the RNs, oncology team, attending physicians, and social workers was that there was a need to intervene earlier in the cancer trajectory to support patients throughout the cancer treatment.

During the organizational assessment, members of the palliative care team indicated that they could handle increased number of referrals for patients diagnosed with Stage II and Stage III cancer. Members of the Palliative Care team emphasized the importance of education of patients, families, and health care providers regarding palliative care at the initial diagnosis. They believed that it would decrease the stigma and clarify that palliative care is distinct but not exclusive of end-of-life care. The Palliative Care team are supportive of early palliative care referrals before patients experience significant symptoms related to cancer or its treatment. The goal of palliative care is to reduce symptom burden, alleviate anxiety, depression, and fear, while providing comfort and support of patients and their families.

SWOT Analysis

Strengths

The strengths of Jackson Memorial Hospital are the support among the nursing staff in the belief that palliative care options should be given to cancer patients with a stage II, III, and IV diagnosis. As mentioned previously, the nurses on the Oncology Unit are interested in educational opportunities to identify triggers and encourage earlier palliative care referrals. Jackson Memorial Hospital is also a teaching hospital and continuing education is encouraged. Oncology professionals in the oncology department have been open to quality improvement suggestions, such as providing additional patient and family support through palliative care consultation earlier in the cancer trajectory.

Weaknesses

The weaknesses of Jackson Memorial Hospital have been prior medical oncology staff referral to palliative care at the initial diagnosis of Stage II cancer. If the medical oncology team incorporated aggressive treatment in conjunction with early palliative care referrals, it would allow for improved patient outcomes through palliative care collaboration in developing and implementing the cancer treatment plan. Another weakness noted at Jackson Memorial Hospital is the lack of triggers related to the stage of cancer, associated symptoms of the disease or its treatment, and anticipated goals for discharge of patients with palliative care needs. Recognition of triggers indicating the need for a Palliative Care consultation would provide more objective data rather than subjective prognostication by physicians.

Opportunities

The opportunities for this DNP project are utilizing continuing education to help oncology registered nurses understand the importance of palliative care at the onset of a Stage II cancer diagnosis to increase quality care for oncology patients through early referral to palliative care in conjunction with oncology care.

Threats

A few threats were noted at JMH for the completion of this project. Patients may not be receptive to earlier palliative care referrals even after the healthcare professionals receive more education on the importance of palliative care in improving quality of life during cancer treatment. Time constraints for the oncology RN and NP staff can limit time available during the change of shift huddles to provide informative education.

SWOT Analysis of Jackson Memorial Hospital	
Strengths • Support from oncology nursing staff • JMH encourages education • Open to suggestions for quality improvement	**Weaknesses** • Support from medical-oncology staff • Lack of triggers that identify subgroups of patients
Opportunities • Specific palliative care education • Increase in quality of patient care • Immediate increase of early palliative care referrals after educational information guide regarding palliative care and triggers	**Threats** • Time constraints • Patient negative response to suggestions regarding palliative care referral

V. Definition of Terms

The following terms for definition in the quality improvement project are regional cancer, metastatic cancer, oncology care, palliative care, and triggers.

Regional cancer: Cancer that has grown past the original tumor site but has yet to spread to other parts of the body and is normally classified as Stage II or Stage III (Wen et al., 2021).

Metastatic cancer: Cancer that has spread to second or more site in the body outside of the original tumor site and is classified as Stage IV (Ghadjar et al., 2021).

Oncology care: The medical specialty focused on the diagnosis and treatment of cancer including various curative and palliative treatments (Knutzen et al., 2020).

Palliative care: Specialized, supportive care for persons with serious and life-threatening illnesses and their families that includes physical, emotional, psychological, and spiritual care to enhance the quality of life during the illness trajectory (Knutzen et al., 2020).

Triggers: Pre-determined symptoms, both on the physical and psychological spectrum, that will alert a clinician to the possible need for an intervention such as palliative care referral (Knutzen et al., 2020).

VI. Theoretical Framework

The National Consensus Project (NCP) for Quality Palliative Care has established guidelines that define the “gold-standard” of palliative care programs in facilities around the country (National Consensus Project for Quality Palliative Care, 2018). There are eight domains of a quality palliative care program: Structure and process of care, physical aspects of care, psychological and psychiatric aspect, social aspects of care, spiritual and existential aspects, cultural aspects, care of the patient at the end of life, and the ethical and legal aspects of care (Ferrell, Twaddle, Melnick, & Meier, 2018). The guidelines discuss how palliative care programs should compose interprofessional teams, how a patient’s care should be planned, how and when to integrate psychological care into a patient’s treatment and support for the family. The guidelines also establish the need for cultural competence when designing a palliative care treatment plan, as well as taking a patient’s spiritual needs and treatment preference. The guidelines are beneficial to both the patient and the facilities offering palliative care in that they not only set the standard for quality care, but also help to establish the distinction between palliative care and hospice care (Ferrell, Twaddle, Melnick, & Meier, 2018).

VII. Methodology

Introduction of QI Methodology (PDSA)

The Plan, Do, Study, Act (PDSA) model is a commonly used model in quality improvement projects (Christoff, 2018). The model focuses on developing an intervention and evaluating how the intervention positively impacts the study environment or subjects while adjusting the intervention as needed. The PDSA model determined when an intervention positively serves its purpose or is found that the intervention is not feasible or efficient. According to Christoff (2018), among the popular models for change, such as Six-sigma and Lean, the PDSA model is most used in healthcare quality improvement projects and it is a model that can be used within the same project to adjust variables as needed.

The four phases of the PDSA model are Plan, Do, Study, and Act. The “Plan” phase includes determining the needs of a group of subjects or a study site or a combination of both. It also includes the development of an intervention, identification of participants, obtaining IRB approval, and assigning tasks to begin implementing the intervention and completing the other steps (Christoff, 2018). The “Do” phase is the implementation of the intervention and all elements of the “Plan” phase. The “Study” phase involves analyzing the collected data to learn how the intervention was successful or if the intervention needs to be modified. The “Act” phase is the final part of the cycle and determines whether the intervention is either put into protocol, changed to better fit the needs of the participants, or deemed as unadoptable (Christoff, 2018).

Plan Phase

Study Design

The DNP quality improvement project will be a pre-test and post-test design to measure RNs and NPs knowledge regarding palliative care, triggers related to early palliative care referrals for patients with Stage II and III. A pre-test demographic and professional form will be created to test the level of knowledge in RNs and NPs on the Oncology Unit at the study site. The intervention will be educational in-service on the Oncology Unit with RNs and NPs on palliative care and early Palliative Care referrals for Oncology patients with Stage II and III cancer.

Setting

The QI project was conducted at the Oncology Unit at a publicly funded, tertiary teaching hospital. This unit consists of 48 in-patient beds which includes Surgical Oncology, chemotherapy infusions, supportive management such as blood transfusions, prophylactic antibiotic care, and electrolyte replacements.

Sample

The QI project sample population consisted of 23 participants, specifically Registered Nurses (RNs) and Advanced Practice Registered Nurses (APRNs) on the Oncology Unit.

Intervention

The intervention was an educational in-service using an educational, evidence-based information guide, created by the DNP candidate, during the RNs and NPs the change of shift huddle on the Oncology Unit. The educational information guide included information on palliative care, the benefits of early palliative care referral, as well as information about the use of triggers that will identify the need for a Palliative Care referral for patients with Stage II and III cancer. The information about triggers included: the benefits of using triggers for both clinicians and patients, and specific triggers for oncology patients. The education information guide also contained contacts such as emails and websites pertaining to palliative care specialists within the JMH system, as well as within Miami-Dade that can be used at the point of discharge.

Instruments

A Demographic and Professional Form assessed RNs and NPs characteristics including age, gender, ethnicity, education status, number of years in oncology, number of years on this oncology unit, professional role on unit, and prior participation in educational sessions related to palliative care.

The Palliative Care Quiz for Nursing (PCQN) was developed to assess nurse's knowledge on palliative care and promote quality improvement in facilities offering Palliative Care services by highlighting the areas in which the services need improvement (Ross, McDonald, & McGuiness, 1996).) The PCQN tool was developed to identify the palliative care educational needs of health professional by assessing five competency domains: overarching values and knowledge, communication skills, assessment and care planning, symptom management, maintaining comfort and well-being, and advance care planning (Ross, McDonald, & McGuiness, 1996). According to Soikkeli-Jalonen et al. (2019), the PCQN has a Cronbach's alpha of 0.67 which establishes an acceptable level of reliability. The PCQN was used to assess the RNs' and NPs' knowledge of palliative care and modified by adding additional knowledge questions related to triggers for early palliative care referral of patients with Stage II and III cancers.

Within the period of three weeks before the educational intervention, the Oncology Unit manager was asked for the number of Palliative Care referrals and stage of cancer of patients referred, as well as the reason for referral. This data was also collected within three weeks post-educational intervention.

Data Collection, Management, and Protection of Human Subjects

The DNP Candidate and Lead Faculty of the Quality Improvement project completed the required Collaborative Institutional Training Initiative (CITI) program that educates about the importance of the protection of human subjects. Before the start of the project, the Institutional Review Board (IRB) application was submitted to Florida International University Office of Research and Economic Development for project approval, as well as project approval at JMH.

A flyer informing the RN and NP staff of the Oncology Unit about the project was posted in the unit conference room including the project's type of educational intervention, and contact information of the DNP candidate. When the DNP Candidate was contacted by potential participants, the projects inclusion and exclusion criteria was discussed, and any questions asked about the project were answered. Potential participants were informed that their participation is totally voluntary and that they may withdraw from the study at any time without any negative consequences.

An electronic adult written informed consent form was sent by the DNP Candidate to the participant. It was returned electronically to the DNP Candidate and was assigned a participant code number. The Demographic and Professional Form, as well as the pre-test Palliative Care Quiz for Nursing (PCQN), was sent by email and returned by email to the DNP Candidate. The signed consent, Demographic and Professional Form, and PCQN test were kept in a locked a file cabinet in the locked office of the DNP Candidate. Study data was entered into a password protected SPSS program for data analysis.

The project's educational intervention was conducted on the Oncology Unit during the night shift huddle at 7 pm to meet by day and night shift nursing staff for one week was allowed by FIU and JHM given the ongoing Covid pandemic. Otherwise, a Covid Mitigation Plan would have been submitted to gain FIU to conduct the project on-site rather than through a virtual approach using a zoom meeting.

Participants were emailed a link to a modified PCQN pre- and post-intervention survey on SurveyMonkey. They were instructed to create unique, anonymous identification codes. The SurveyMonkey website was password protected and accessed on the password protected computer belonging to the DNP candidate.

Data Analysis

The survey data was uploaded to GraphPad Prism in the DNP candidate's password protected computer for data analysis. The data from both surveys were scored with a percentage and a mean score was calculated. Scores were analyzed using a paired t-test to compare mean knowledge scores before and after the intervention. Using the paired t-test, p-values were also obtained. An alpha level of 0.05 was used for all statistical tests.

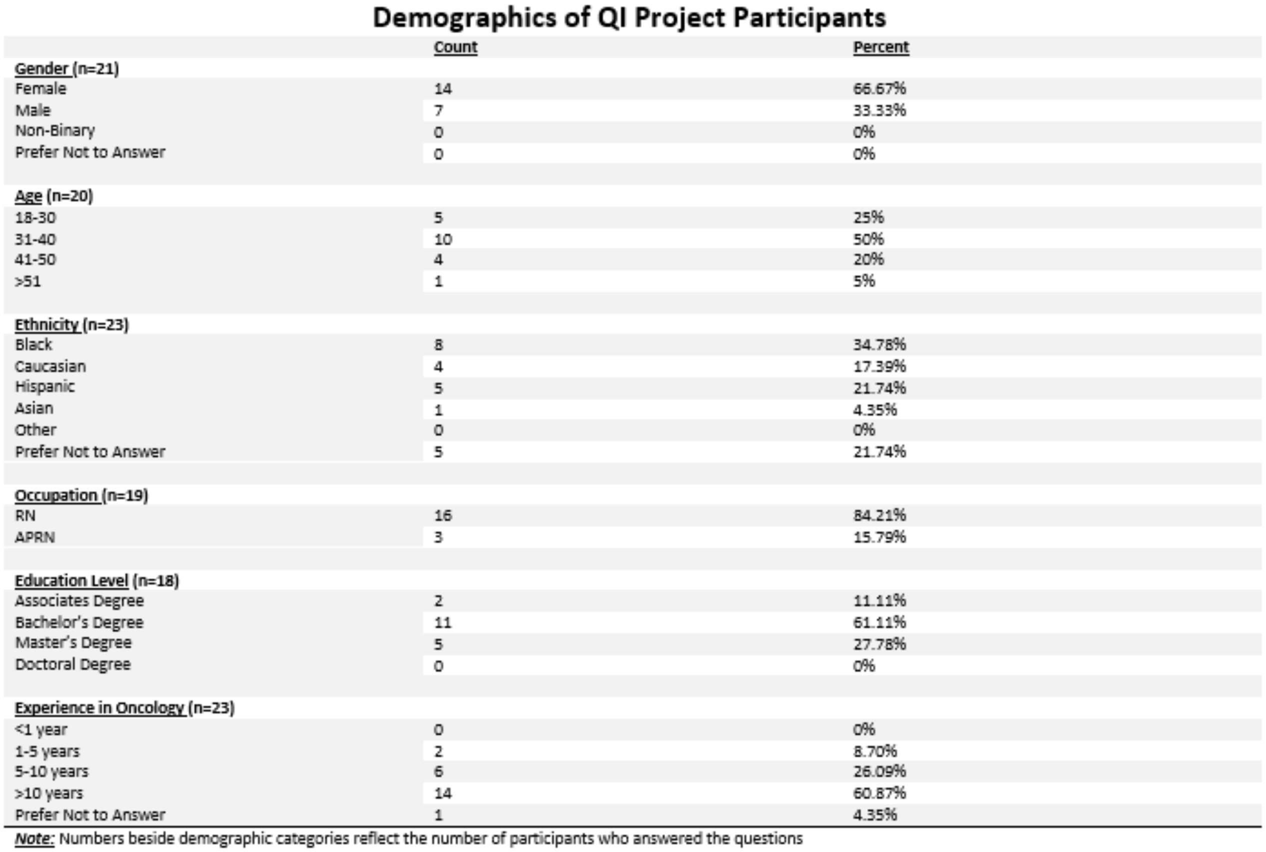
VIII. Results

The purpose of the QI project was to increase the knowledge of Oncology nurses and Nurse Practitioners about palliative care and triggers for early palliative care referrals for patients with Stage II and III cancer. The QI project was also intended to educate nurses on the use of triggers for a more standardized and less subjective method of determining a patient's need for palliative care.

Demographics

Some participants chose not to complete all questions in the demographics portion and the discussion reflects the percentages from the data of those who answered the questions.

Survey Sample



Demographics of QI Project Participants

	Count	Percent
Gender (n=21)		
Female	14	66.67%
Male	7	33.33%
Non-Binary	0	0%
Prefer Not to Answer	0	0%
Age (n=20)		
18-30	5	25%
31-40	10	50%
41-50	4	20%
>51	1	5%
Ethnicity (n=23)		
Black	8	34.78%
Caucasian	4	17.39%
Hispanic	5	21.74%
Asian	1	4.35%
Other	0	0%
Prefer Not to Answer	5	21.74%
Occupation (n=19)		
RN	16	84.21%
APRN	3	15.79%
Education Level (n=18)		
Associates Degree	2	11.11%
Bachelor's Degree	11	61.11%
Master's Degree	5	27.78%
Doctoral Degree	0	0%
Experience in Oncology (n=23)		
<1 year	0	0%
1-5 years	2	8.70%
5-10 years	6	26.09%
>10 years	14	60.87%
Prefer Not to Answer	1	4.35%

Note: Numbers beside demographic categories reflect the number of participants who answered the questions

Of the 23 participants in the QI project, 14 (66.67%) identified as female and 7 (33.33%) identified as male. Most participants indicated their age range as 31-40 (50%) with an age range between 18-30 (25%), 41-50 (20%), and 51 or older (5%). Eight participants (34.78%) identified their ethnicity as Black, 4 (17.39%) identified as Caucasian, 5 (21.74%) identified as Hispanic, 1 (4.35%) identified as Asian, and 5 (21.74%) indicated they preferred not to answer the question. The QI project focused on RNs and APRNs and 16 (84.21%) participants indicated their occupation as RN, while 3 (15.79%) indicated APRN as their title. The highest level of education of the participants was Master's degree (27.78%), while other participants chose Bachelor's degree (61.11%), and Associate's degree (11.11%). The majority of the participants who chose to answer had more than 10 years of experience working in Oncology (60.87%).

Pre- and Post-Intervention Results of Knowledge of Palliative Care

The surveys completed by the participants included The PCQN tool to identify the palliative care educational needs of health professional by assessing five knowledge domains: overarching values and knowledge, communication skills, assessment and care planning, symptom management, maintaining comfort and well-being, and advance care planning.

The scores of the pre- and post-intervention surveys were analyzed in GraphPad. A two-tailed paired samples t-test was performed. The results are shown in Table 2. The result of the two-tailed paired samples t-test was t(22) = 3.1699, p = 0.0044, indicating a statistically significant difference based on an alpha value of 0.05. A chart representing the mean scores of the pre- and post-intervention results is shown in Figure 1.

Table 2
Two-Tailed Paired Samples t-Test Results

	Pre-Intervention	**Post-Intervention**
Mean	18.674	**21.587**
SD	4.532	**3.239**

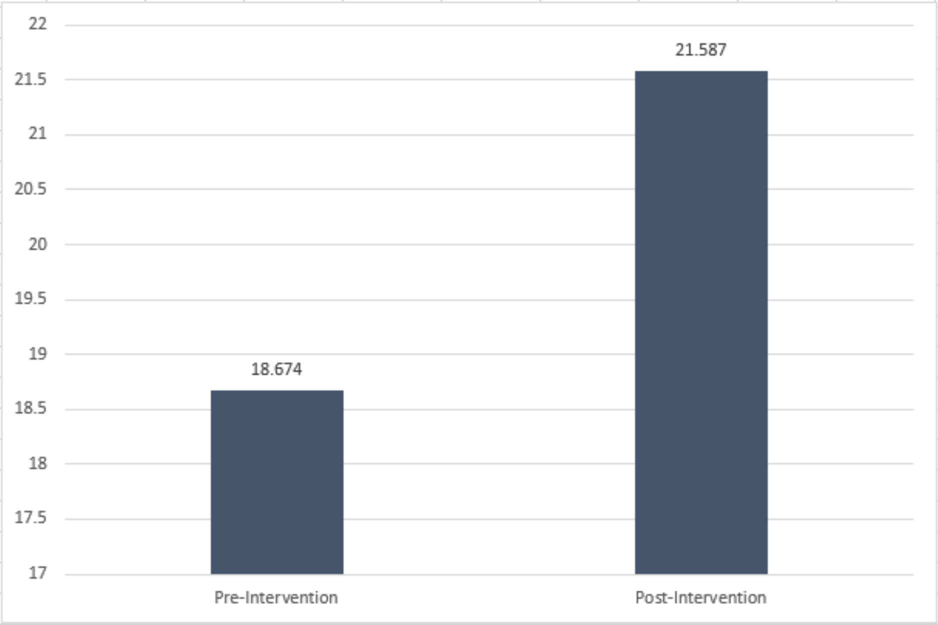
IX. Discussion

The results of the QI project's pre- and post-intervention surveys showed improvement in Oncology RN and APRN knowledge about palliative care and triggers for early palliative care referral, attending educational presentations conducted by the DNP candidate.

When asked about the use of morphine as the standard used to compare the analgesic effect of other opioids, 73.91% answered true and 13.04% answered false while 13.04% did not know in the pre-intervention survey. In the post intervention survey, the percentage of participants who answered true increased to 82.61% while those who answered false decreased to 0% though the number of participants who did not know increased to 17.39%.

Figure 1

Mean Scores of Pre- and Post-Intervention Surveys



It could be assumed that some participants who answered they did not know in both surveys were either clicking through the answers to complete the surveys or were basing their answers on subjective feelings rather than objective facts. The understanding of the palliative care needs for patients with Stages I – II cancer is with the most significant improvement. In the pre-intervention survey, only 56.52% of participants indicated they knew the palliative care needs but in the post-intervention survey, that number increased to 95.65%.

The project found that after education regarding the benefits of earlier palliative care referrals as well as what symptoms could trigger a need for a patient's need of palliative care despite the stage of disease, participants were more likely to recognize symptoms or complaints mentioned by patients that should trigger the need for palliative services for their patients with earlier stages of cancer. After the educational presentation, participants recognized more than a single symptom to trigger palliative care referrals for patients. In the pre-intervention survey, several participants chose single symptoms for triggering palliative care services such as just pain (26.09%), nausea (8.7%), or Stage II or III diagnosis (4.35%) with 60.87% choosing “all of the above” and none choosing anxiety. However, in the post-intervention survey, 91.3% of participants indicated that all of the symptoms listed suggested patients may benefit from palliative care services while only 8.7% chose the singular symptom of pain. This is like the findings of Patel et al. (2012) in which nurses described unmanageable physical symptoms, expressing wishes for sedation, extreme emotional or psychological symptoms, or familial distress as triggers for palliative care services rather than a particular diagnosed stage of disease.

The project results also suggest increased education about the benefits of early palliative care earlier in the disease trajectory positively affects a change in participant knowledge toward when palliative care services should be included in patient care as well as the need for palliative care screening without a documented diagnosis of advanced cancer. Fujisawa et al. (2020) found that subjective feelings from either healthcare professionals or the patient can delay palliative care service referrals. In the study, the pre-intervention survey results showed support for screening of patients for palliative care services without the diagnosis of advanced cancer and support of palliative care services despite a diagnosis of a lower stage of cancer were 91.3% and 56.52%, respectively. In the post-intervention survey, those percentages rose to 95.65% and 73.91%. The result of the project implies that nurses are more likely to screen all cancer patients for the need of palliative services and believe patients need palliative services when screening indicates so after educational training, giving a positive to the argument of the need of a development of an early palliative care trigger protocol for the study site Oncology unit.

X. Limitations

There were several limitations to the implementation of the QI project. These limitations were sample size, as well as time constraints. The QI project focused on nurses and Nurse

Practitioners working in an Oncology unit when the determination of time frames for palliative care services includes the opinions of physicians, families, and patients as well. Future research should include a sample population involving other specialties within Oncology to help develop an educational program and trigger protocol for early palliative care referrals. The sample size was also a limitation as the QI project was conducted in a single facility using a convenience sample of nurses available at the times of the educational presentations and pre- and post-intervention surveys. As QI projects require approval from the FIU IRB, as well as approval from the study site, time was a limitation as well. Approval from the study site required a longer period of time and the QI project began later than expected.

XI. Implications for Advanced Nursing Practice

To improve early palliative care referrals for patients earlier in the cancer trajectory, trigger protocols alerting to the need of services should be implemented as a standard across all health facilities. For nurses, physicians, and other healthcare professionals to undergo positive change in knowledge regarding earlier use of palliative care for patients regardless of cancer stage, they should undergo educational training highlighting the benefits of palliative care for patients including improved symptom management, improved spiritual and emotional coping, longer lifespan, and future care through advanced directives. There is importance in understanding that many Oncology nurses already have the knowledge needed about the overall benefits of palliative care. Education should also focus on the ways in which trigger protocols can standardize the referrals to palliative care. Palliative care education and protocols should be further researched, implemented, and standardized.

XII. Conclusion

Palliative care services are an important part of care for patients with serious and life-threatening illnesses. Though palliative care services are widely used, the time frame in which patients receive care can vary greatly based on subjective feelings of healthcare providers, patients, and their families. Due to the history of relating palliative care with hospice care, healthcare professionals and patients alike have been reluctant to refer to palliative care services earlier in the disease trajectory where it can benefit patients as an addition to their treatment. One of the challenges to earlier palliative care referrals is the knowledge of palliative care and triggers by professionals such as Oncology nurses. In-service education for nurses in Oncology can assist in nurses realizing that palliative care may be needed at any point in a disease trajectory and how using a trigger protocol for symptoms related to physical, emotional, mental, and spiritual suffering will help to standardize referrals to palliative care. Future research is needed to examine the early referral rates to palliative care for Stage II and III Oncology patients before and after the implementation of trigger protocols and subsequently, the impact of the usage of palliative care services on the quality of life of patients in early and advanced stages of cancer.

XIII. References

AACN. (2021). *End-of-Life-Care (ELNEC)*. American Association of Colleges of Nursing: The voice of academic nursing. https://www.aacnnursing.org/ELNEC/About.

Agarwal, R., & Epstein, A. S. (2017). The role of palliative care in oncology. *Seminars in Interventional Radiology*, *34*(4), 307–312. https://doi.org/10.1055/s-0037-1608702

Al-Mahrezi, A., & Al-Mandhari, Z. (2016). Palliative care: Time for action. *Oman Medical Journal*, *31*(3), 161–163. https://doi.org/10.5001/omj.2016.32

American Cancer Society. (2019). *Cancer facts & figures 2021*. American Cancer Society. https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2021/cancer-facts-and-figures-2021.pdf.

American Cancer Society. (2019). *Cancer treatment & survivorship facts & figures 2019-2021*. American Cancer Society. https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/cancer-treatment-and-survivorship-facts-and-figures/cancer-treatment-and-survivorship-facts-and-figures-2019-2021.pdf.

Antonacci, R., Barrie, C., Baxter, S., Chaffey, S., Chary, S., Grassau, P., Hammond, C., Mirhosseini, M., Mirza, R. M., Murzin, K., & Klinger, C. A. (2020). Gaps in hospice and palliative care research: A scoping review of the North American literature. *Journal of Aging Research*, *2020*, 3921245. https://doi.org/10.1155/2020/3921245

Bailey, R. R. (2017). Goal setting and action planning for health behavior change. *American Journal of Lifestyle Medicine*, *13*(6), 615–618. https://doi.org/10.1177/1559827617729634

Bubis, L. D., Davis, L., Mahar, A., Barbera, L., Li, Q., Moody, L., … Coburn, N. G. (2018). Symptom burden in the first year after cancer diagnosis: An analysis of patient-reported outcomes. *Journal of Clinical Oncology*, *36*(11), 1103–1111. https://doi.org/10.1200/jco.2017.76.0876

Buiar, P. G., & Goldim, J. R. (2019). Barriers to the composition and implementation of advance directives in oncology: A literature review. *Cancer Medical Science*, *13*, 974. https://doi.org/10.3332/ecancer.2019.974

CAPC. (2020, May 11). Palliative Care, Report Card. https://reportcard.capc.org/.

Carrasco-Zafra, M. I., Gómez-García, R., Ocaña-Riola, R., Martín-Roselló, M. L., & Blanco-Reina, E. (2020). Level of palliative care complexity in advanced cancer patients: A multinomial logistic analysis. *Journal of Clinical Medicine*, *9*(6). https://doi.org/10.3390/jcm9061960

CDC. (2020, May 29). *An update on cancer deaths in the United States*. *Centers for Disease Control and Prevention*. https://www.cdc.gov/cancer/dcpc/research/update-on-cancer-deaths/index.htm.

Chai, E. (2017). To trigger or not: That is the question. *Journal of Palliative Medicine*, 20(2), 112-113.

Chidiac, C. (2018). The evidence of early specialist palliative care on patient and caregiver outcomes. *International Journal of Palliative Nursing*, *24*(5), 230–237. https://doi.org/10.12968/ijpn.2018.24.5.230

Christoff, P. (2018). Running PDSA cycles. *Current Problems in Pediatric and Adolescent Health Care*, *48*(8), 198–201. https://doi.org/10.1016/j.cppeds.2018.08.006

Collins, A., Sundararajan, V., Burchell, J., Millar, J., McLachlan, S.-A., Krishnasamy, M., … Philip, J. (2018). Transition points for the routine integration of palliative care in patients with advanced cancer. *Journal of Pain and Symptom Management*, *56*(2), 185–194. https://doi.org/10.1016/j.jpainsymman.2018.03.022

Cruz-Oliver, D. M. (2017). Palliative care: An update. *Missouri Medicine*, *114*(2), 110–115.

Dai, Y. X., Chen, T. J., & Lin, M. H. (2017). Branding palliative care units by avoiding the terms "palliative" and "hospice". *Inquiry : A Journal of Medical Care Organization, Provision and Financing*, *54*, 46958016686449. https://doi.org/10.1177/0046958016686449

Dalhammar, K., Malmström, M., Schelin, M., Falkenback, D., & Kristensson, J. (2020). The impact of initial treatment strategy and survival time on quality of end-of-life care among patients with oesophageal and gastric cancer: A population-based cohort study. *PloS One*, *15*(6), e0235045. https://doi.org/10.1371/journal.pone.0235045

Department of Elder Affairs. (2018). *Hospice demographics and outcome measures*. Department of Elder Affairs. http://elderaffairs.state.fl.us/doea/Evaluation/2018_Hospice_Report.pdf.

Ferrell, B. R., Twaddle, M. L., Melnick, A., & Meier, D. E. (2018). National Consensus Project Clinical Practice Guidelines for Quality Palliative Care. *Journal of Palliative Medicine*, *21*(12), 1684–1689. https://doi.org/10.1089/jpm.2018.0431

Fujisawa, D., Umemura, S., Okizaki, A., Satomi, E., Yamaguchi, T., Miyaji, T., Matsumoto, Y. (2020). Nurse-led, screening-triggered, early specialised palliative care intervention programme for patients with advanced lung cancer: Study protocol for a multicentre randomised controlled trial. *BMJ Open*, *10*(11). https://doi.org/10.1136/bmjopen-2020-037759

Florida Health. (2021, January). Cancer. Retrieved March 24, 2021, from http://www.floridahealth.gov/diseases-and-conditions/cancer/index.html.

Florida Department of Health. (2016, June 30). *Palliative care in Florida, 2016*. Issuu. https://issuu.com/floridahealth/docs/palliative_care_in_florida__2016.

García-Baquero Merino, M. T. (2018). Palliative care: Taking the long view. *Frontiers in Pharmacology*, *9*, 1140. https://doi.org/10.3389/fphar.2018.01140

Gallagher, R., Passmore, M. J., & Baldwin, C. (2020). Hastened death due to disease burden and distress that has not received timely, quality palliative care is a medical error. *Medical Hypotheses*, *142*, 109727. https://doi.org/10.1016/j.mehy.2020.109727

Ghadjar P, Stritter W, von Mackensen I, Mehrhof F, Foucré C, Ehrhardt VH, Beck M, Gebert P, Kalinauskaite G, Luchte JS, Stromberger C, Budach V, Eggert A, Seifert G. External application of liver compresses to reduce fatigue in patients with metastatic cancer undergoing radiation therapy, a randomized clinical trial. Radiat Oncol. 2021 Apr 19;16(1):76. doi: 10.1186/s13014-021-01757-x. PMID: 33874968; PMCID: PMC8054395.

Gill, A., Chakraborty, A., & Selby, D. (2012). What is symptom burden: A qualitative exploration of patient definitions. *Journal of Palliative Care*, *28*(2), 83–89. https://doi.org/10.1177/082585971202800204

Goldman, L. W., & Schafer, A. I. (2016). *Goldman's cecil medicine*. Elsevier/Saunders.

Gradwohl, R., & Brant, J. M. (2015). Hospital-based palliative care: Quality metrics that matter. *Journal of the Advanced Practitioner in Oncology*, *6*(6), 606–610.

Granek, L., Nakash, O., Ariad, S., Shapira, S., & Ben-David, M. (2019). Strategies and barriers in addressing mental health and suicidality in patients with cancer. *Oncology Nursing Forum*, *46*(5), 561–571. https://doi.org/10.1188/19.onf.561-571

Haun, M. W., Estel, S., Rücker, G., Friederich, H.-C., Villalobos, M., Thomas, M., & Hartmann, M. (2017). Early palliative care for adults with advanced cancer. *Cochrane Database of Systematic Reviews*. https://doi.org/10.1002/14651858.cd011129.pub2

Hawley P. (2017). Barriers to access to palliative care. *Palliative Care*, *10*, 1178224216688887. https://doi.org/10.1177/1178224216688887

Hui, D., Meng, Y. C., Bruera, S., Geng, Y., Hutchins, R., Mori, M., Strasser, F., & Bruera, E. (2016). Referral criteria for outpatient palliative cancer care: A systematic review. *The Oncologist*, *21*(7), 895–901. https://doi.org/10.1634/theoncologist.2016-0006

Jackson Health System. (2021). *Jackson Memorial Hospital*. Jackson Health System. https://jacksonhealth.org/locations/jackson-memorial-hospital/.

National Consensus Project for Quality Palliative Care (2018). Clinical Practice Guidelines for Quality Palliative Care, 4th edition. Richmond, VA: National Coalition for Hospice and Palliative Care. https://www. nationalcoalitionhpc.org/ncp.

National Institute for Health and Care Excellence. (2019, October). *Evidence review: Timing of referral to palliative care services*. National Center for Biotechnology Information. https://www.ncbi.nlm.nih.gov/books/NBK558768/.

Kirby, E., Broom, A., & Good, P. (2014). The role and significance of nurses in managing transitions to palliative care: A qualitative study. *BMJ Open*, *4*(9), e006026. https://doi.org/10.1136/bmjopen-2014-006026

Knutzen, K. E., Schifferdecker, K. E., Murray, G. F., Alam, S. S., Brooks, G. A., Kapadia, N. S., Butcher, R., & Barnato, A. E. (2020). Role of norms in variation in cancer centers' end-of-life quality: qualitative case study protocol. BMC Palliative Care, 19(1), N.PAG. https://doi-org.ezproxy.fiu.edu/10.1186/s12904-020-00641-x

Koesel, N., Tocchi, C., Burke, L., Yap, T., & Harrison, A. (2019). Symptom distress: Implementation of palliative care guidelines to improve pain, fatigue, and anxiety in patients with advanced cancer. *Clinical Journal of Oncology Nursing*. https://doi.org/10.1188/19.cjon.149-155

Malloy, P., Takenouchi, S., Kim, H. S., Lu, Y., & Ferrell, B. (2017). Providing palliative care education: Showcasing efforts of Asian nurses. *Asia-Pacific Journal of Oncology Nursing*. https://doi.org/10.4103/apjon.apjon_55_17

Miami-Dade Matters. (2020, May). *Miami cancer incidence rate*. Miami-Date Matters. http://www.miamidadematters.org/indicators/index/view?indicatorId=162&localeId=414.

Mitrea, N., Moşoiu, D., Ancuţa, C., Malloy, P., & Rogozea, L. (2017). The impact of the end-of-life nursing education consortium international training program on the clinical practice of eastern European nurses working in specialized palliative care services. *Journal of Hospice & Palliative Nursing*, *19*(5), 424–434. https://doi.org/10.1097/njh.0000000000000367

National Cancer Institute. (2020, September 5). *Cancer statistics*. National Cancer Institute. https://www.cancer.gov/about-cancer/understanding/statistics.

National Cancer Institute. (2015, March 9). *Cancer staging*. National Cancer Institute. https://www.cancer.gov/about-cancer/diagnosis-staging/staging.

National Hospice and Palliative Care Organization (2020). *NHPCO FACTS AND FIGURES*. https://www.nhpco.org

O'Shea, E. R., & Mager, D. (2019). End-of-life nursing education: Enhancing nurse knowledge and attitudes. *Applied Nursing Research*, *50*, 151197. https://doi.org/10.1016/j.apnr.2019.151197

Patel, B., Gorawara-Bhat, R., Levine, S., & Shega, J. W. (2012). Nurses' attitudes and experiences surrounding palliative sedation: components for developing policy for nursing professionals. *Journal of Palliative Medicine*, *15*(4), 432–437. https://doi.org/10.1089/jpm.2011.0336

Rosen, R., & Sapra, A. (2020, April 16). *TNM Classification*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK553187/.

Ross, M., McDonald, M., & 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(1), 126–137.* doi:10.1111/j.1365-2648.1996.tb03106.x

Scarborough, B. M., & Smith, C. B. (2018). Optimal pain management for patients with cancer in the modern era. *CA: A Cancer Journal for Clinicians*, *68*(3), 182–196. https://doi.org/10.3322/caac.21453

Schroeder, K., & Lorenz, K. (2018). Nursing and the future of palliative care. *Asia-Pacific Journal of Oncology Nursing*, *5*(1), 4–8. https://doi.org/10.4103/apjon.apjon_43_17

Seelbach, C. L., & Brannan, G. D. (2020, April 24). *Quality Management*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK557505/.

Senderovich, H., & McFadyen, K. (2020). Palliative care: Too good to be true? *Rambam Maimonides Medical Journal*, *11*(4), e0034. https://doi.org/10.5041/RMMJ.10394

Shalev, A., Phongtankuel, V., Kozlov, E., Shen, M. J., Adelman, R. D., & Reid, M. C. (2018). Awareness and misperceptions of hospice and palliative care: A population-based survey study. *The American Journal of Hospice & Palliative Care*, *35*(3), 431–439. https://doi.org/10.1177/1049909117715215

Sherman, D. W., & McMillan, S. C. (2015). The physical health of patients with advanced pancreatic cancer and the psychological health of their family caregivers when newly enrolled in hospice. *Journal of Hospice & Palliative Nursing*, *17*(3), 235–241. https://doi.org/10.1097/njh.0000000000000154

Sherman, D.W. (2019). A review of the complex role of family caregivers as health team members and second-order patients. *Healthcare*, *7*(2), 63-75. https://doi.org/10.3390/healthcare7020063

Silkman, C. (2008). *Assessing the seven dimensions of pain*. American Nurse. https://www.myamericannurse.com/assessing-the-seven-dimensions-of-pain/.

Soikkeli-Jalonen, A., Stolt, M., Hupli, M., Lemetti, T., Kennedy, C., Kydd, A., & Haavisto, E. (2019). Instruments for assessing nurses' palliative care knowledge and skills in specialised care setting: An integrative review. *Journal of Clinical Nursing*, *29*(5-6), 736–757. https://doi.org/10.1111/jocn.15146

Sparla, A., Flach-Vorgang, S., Villalobos, M., Krug, K., Kamradt, M., Coulibaly, K., … Ose, D. (2017). Reflection of illness and strategies for handling advanced lung cancer – A qualitative analysis in patients and their relatives. *BMC Health Services Research*, *17*(1). https://doi.org/10.1186/s12913-017-2110-x

Temel, J. S., Greer, J. A., El-Jawahri, A., Pirl, W. F., Park, E. R., Jackson, V. A., Back, A. L., Kamdar, M., Jacobsen, J., Chittenden, E. H., Rinaldi, S. P., Gallagher, E. R., Eusebio, J. R., Li, Z., Muzikansky, A., & Ryan, D. P. (2017). Effects of early integrated palliative care in patients with lung and GI cancer: A randomized clinical trial. *Journal of Clinical Oncology*, *35*(8), 834–841. https://doi.org/10.1200/JCO.2016.70.5046

Trachsel, L. (2020, July 10). *Pain theory*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK545194/.

van Boekel, R., Vissers, K., van der Sande, R., Bronkhorst, E., Lerou, J., & Steegers, M. (2017). Moving beyond pain scores: Multidimensional pain assessment is essential for adequate pain management after surgery. *PloS One*, *12*(5), e0177345. https://doi.org/10.1371/journal.pone.0177345

Verkissen, M. N., Hjermstad, M. J., Van Belle, S., Kaasa, S., Deliens, L., & Pardon, K. (2019). Quality of life and symptom intensity over time in people with cancer receiving palliative care: Results from the international European Palliative Care Cancer Symptom study. *PLOS ONE*, *14*(10). https://doi.org/10.1371/journal.pone.0222988

Wen, Y. F., Chen, M. X., Yin, G., Lin, R., Zhong, Y. J., Dong, Q. Q., & Wong, H. M. (2021). The global, regional, and national burden of cancer among adolescents and young adults in 204 countries and territories, 1990–2019: A population-based study. Journal of Hematology & Oncology, 14(1), 1–14. https://doi-org.ezproxy.fiu.edu/10.1186/s13045-021-01093-3

Woollen, J., & Bakken, S. (2016). Engaging patients with advance directives using an information visualization approach. *Journal of Gerontological Nursing*, *42*(1), 16–20. https://doi.org/10.3928/00989134-20150804-63

World Health Organization. (2018, September 12). *Cancer*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/cancer.

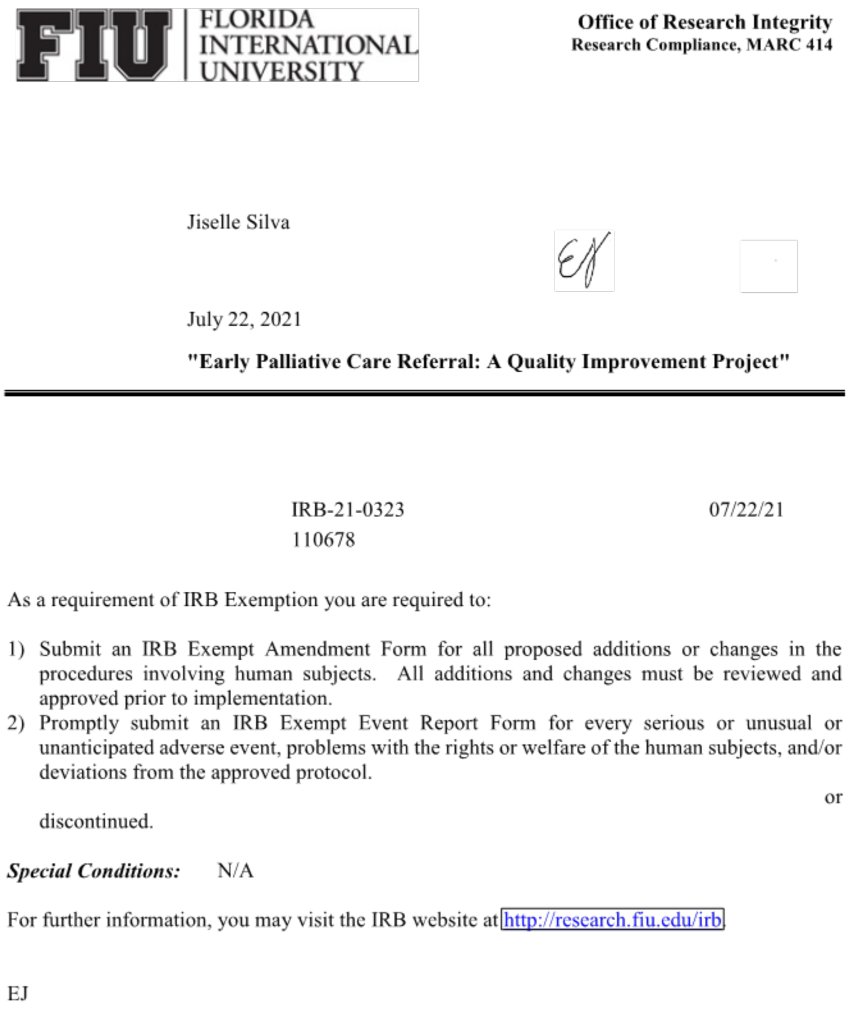
Wysham, N. G., Hua, M., Hough, C. L., Gundel, S., Docherty, S. L., Jones, D. M., … Cox, C. E. (2017). Improving ICU-based palliative care delivery. *Critical Care Medicine*, *45*(4). https://doi.org/10.1097/ccm.0000000000002099

Yusuf, S., Joseph, P., Rangarajan, S., Islam, S., Mente, A., Hystad, P., … Dagenais, G. (2020). Modifiable risk factors, cardiovascular disease, and mortality in 155 722 individuals from 21 high-income, middle-income, and low-income countries (PURE): A prospective cohort study. *The Lancet, 395(10226)*, 795–808. https://doi.org/10.1016/s0140-6736(19)32008-

XVI. Appendices

Appendix A

IRB Approval Letter



FIU FLORIDA INTERNATIONAL UNIVERSITY

Office of Research Integrity
Research Compliance, MARC 414

Jiselle Silva

July 22, 2021

"Early Palliative Care Referral: A Quality Improvement Project"

IRB-21-0323 07/22/21
110678

As a requirement of IRB Exemption you are required to:

1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.

or

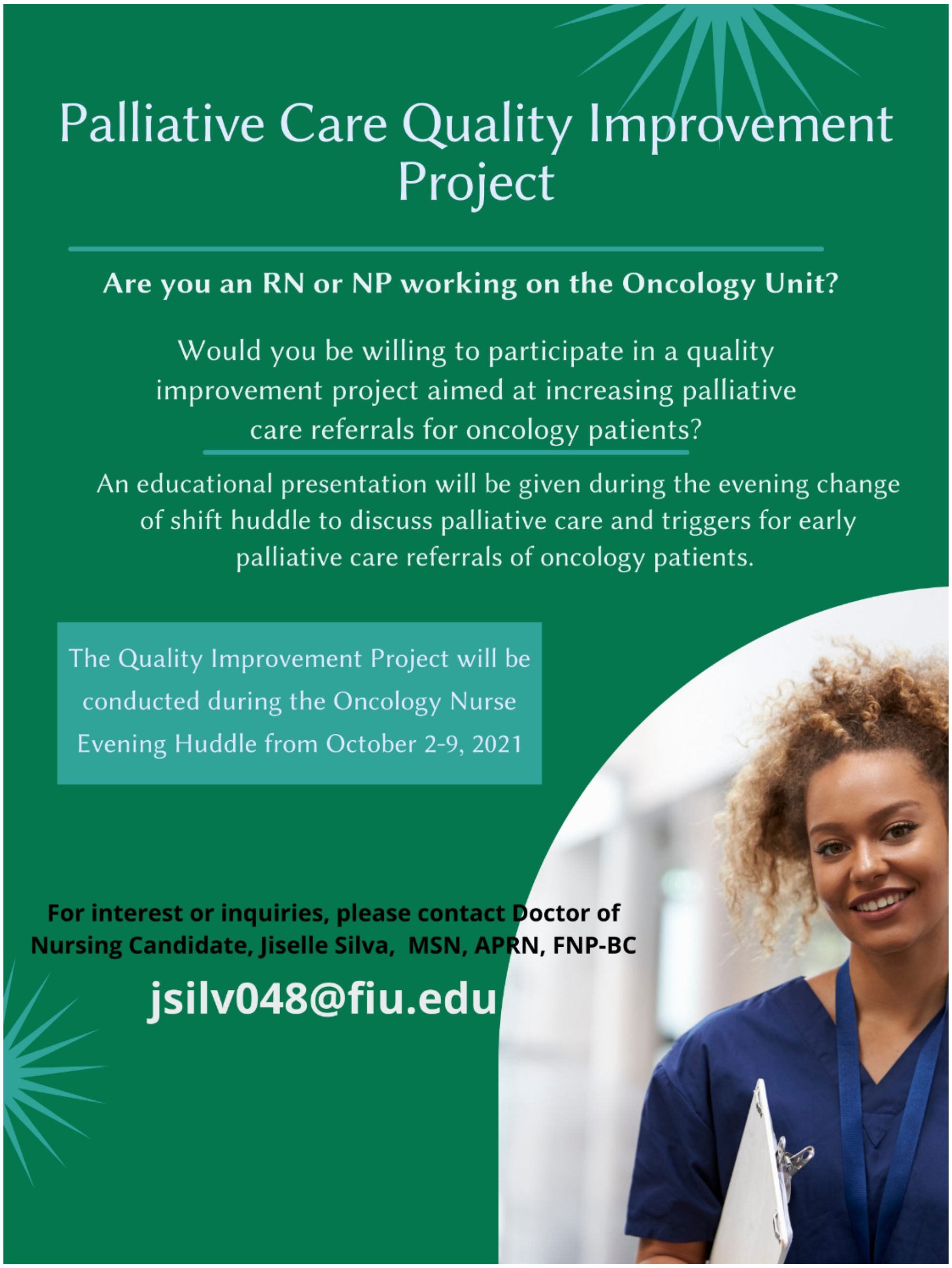
discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at http://research.fiu.edu/irb.

EJ

Appendix B
Recruitment Flyer



Palliative Care Quality Improvement Project

Are you an RN or NP working on the Oncology Unit?

Would you be willing to participate in a quality improvement project aimed at increasing palliative care referrals for oncology patients?

An educational presentation will be given during the evening change of shift huddle to discuss palliative care and triggers for early palliative care referrals of oncology patients.

The Quality Improvement Project will be conducted during the Oncology Nurse Evening Huddle from October 2-9, 2021

For interest or inquiries, please contact Doctor of Nursing Candidate, Jiselle Silva, MSN, APRN, FNP-BC

jsilv048@fiu.edu

Appendix C

Modified PCQN Assessment Tool (Ross, M., McDonald, M., & McGuinness, J. (1996)

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

True False Don't Know

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

True False Don't Know

5. Adjuvant therapies are important in managing pain.

True False Don't Know

6. When a patient states signs/symptoms "suffering," I stop and ask them to elaborate

True False Don't Know

7. I know and can use palliative care triggers for my oncology patients early on in their cancer diagnosis

True False Don't Know

8. What are some palliative care triggers for early Palliative Care Referral?

Pain Nausea/Vomiting Anxiety Stage II/III diagnosis All of the above

9. The provision of palliative care requires emotional detachment.

True False Don't Know

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

True False Don't Know

11. Suffering and physical pain are synonymous

True False Don't Know