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Improving Utilization of Palliative Care for Heart Failure Patients

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Improving Utilization of Palliative Care for Heart Failure Patients

by

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Abstract

The purpose of this program was to educate providers regarding palliative care for heart failure patients. Palliative care is underutilized in conjunction with usual heart failure management despite proven benefits of decreased symptom burden, reduced hospitalizations, and improved overall quality of life. Provider education has the ability to improve provider knowledge of palliative care for heart failure patients. A brief education session was given to hospital providers in an acute care setting to evaluate the benefits of provider education on palliative care utilization for heart failure patients. Findings included improved provider confidence in referring heart failure patients to palliative care. Future implications for research surrounding palliative care for heart failure patients should include surveying provider barriers to referral to tailor education sessions toward provider needs.

Keywords: palliative care, heart failure, education, quality of life, symptom burden, referral

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Introduction

Palliative care (PC) is specialized medical care that aims to provide symptom and stress relief to individuals diagnosed with serious illnesses. The goal of PC is to improve patients’ quality of life. Palliative care specialists work closely with patients’ healthcare teams to provide an extra layer of support to patients and families (Center to Advance Palliative Care, 2020).

In recent years, palliative care has been gaining attention for its potential benefits on chronic illness management, including heart failure. Heart failure (HF) is considered a global pandemic, with more than 26 million individuals impacted (Savarese & Lund, 2017). Heart failure causes a variety of symptoms, including dyspnea, weight gain, weakness, nausea, anxiety, and depression, all of which can impact the quality of life. Palliative care can lessen the symptom burden for patients through supportive care while also improving their quality of life. However, the utilization of PC for heart failure patients continues to be poor. Kavalieratos et al. (2014) interviewed heart failure providers to assess barriers to palliative care referral. Major barriers to utilization were a general lack of knowledge regarding the role of palliative care alongside usual HF management and a public misconception surrounding palliative care. Many believe palliative care cannot be administered alongside life-prolonging treatment, and palliative care is equivalent to hospice care, or end-of-life care. This misconception often results in reluctancy to refer by heart failure providers, and a reluctancy to accept palliative care by patients (Hawley, 2017).

Problem Recognition

Heart failure costs are estimated to be around $108 billion per year (Lesyuk et al., 2018). The United States is the main contributor to these costs, with more than 6 million Americans affected. Heart failure continues to be the leading cause of hospitalizations in the United States, with associated medical costs projected to be more than $77 billion by 2030 (Kavalieratos et al., 2017). Due to the growing financial burden of heart failure globally as well as nationally, HF should be considered a public health priority (Rogers et al., 2017).

Heart failure is debilitating for patients, causing physical, emotional, mental, and spiritual symptoms as well as loss of independence. Ultimately, quality of life is compromised. As heart failure progresses, the burden of managing care increases, taking a toll on patients and caregivers. Patients need additional support with medical decision-making, development of goals of care, and care coordination. Due to the immense burden of heart failure, supportive care must be prioritized.

Background

Lack of provider knowledge regarding palliative care services and when to refer, as well as a public misconception of palliative care's role in healthcare, are major barriers to PC referrals for heart failure patients. Singh et al. (2019) surveyed providers and reported that 53% have no formal education in palliative care. These providers acknowledged their lack of knowledge resulted in late referrals. As the gatekeepers of palliative care for heart failure patients, it is imperative providers have access to PC learning opportunities to understand the correct timing of referral and potential benefits of palliative care given in conjunction with life-prolonging treatment. As heart failure prevalence increases and the quality of life for patients continues to be compromised, providers must understand the value of palliative care in chronic illness management (Singh et al., 2019).

Problem Statement

Heart failure patients continue to experience poor quality of life despite current management. Palliative care can alleviate some of the burdens on both patients and providers, yet it is not routinely incorporated into patient care or referrals are delayed. Education of healthcare providers is necessary to optimize the timing of referral and establish an understanding of the benefits of palliative care.

Literature Review

An expanded literature review was completed using a university database and the question, “In heart failure patients, how does palliative care utilization in conjunction with life-prolonging therapies compared to life-prolonging therapies alone affect heart failure patients’ quality of life throughout disease progression?” Filters of journal articles only, full text, published within the last 5 years, English language, scholarly material, and peer-reviewed were applied. Keywords such as heart failure, heart failure providers, heart failure and palliative care, and cost of heart failure were utilized.

Fourteen articles were chosen with key themes of high symptom burden for heart failure patients, underutilization of palliative care for HF patients, lack of provider knowledge of palliative care referral for HF patients, and high-cost burden of HF.

Needs Assessment

Sponsor and Stakeholders

The sponsor for this quality improvement project was a physician on the palliative care team located at an acute care facility in the southeast. Key stakeholders identified include the Duke Palliative Care Team members, hospitalists, heart failure providers, heart failure patients, and heart failure nurses. External stakeholders include insurers such as health maintenance organizations and the Centers for Medicare and Medicaid Services. Health organizations supporting palliative care integration for heart failure patients such as the National Institute of Health, American College of Cardiology, American Heart Association, and the Center to Advance Palliative Care also serve as external stakeholders (Kavalieratos et al., 2014). Additionally, the community surrounding the acute care hospital could benefit from increased palliative care utilization for HF patients. As associated costs decrease, money saved could be implemented toward community resources.

Organizational Assessment and SWOT Analysis

Rogers et al. (2017) of Duke Health conducted one of the first randomized controlled trials on the utilization of palliative care for HF patients in conjunction with life-prolonging treatments. This groundbreaking research is consistent with Duke Health’s values to provide exceptional quality of care, excellent patient experiences, and innovative care delivery (Duke Health, 2020). For these reasons, Duke Health was chosen as the setting for this program. A SWOT analysis was performed on Duke Health and the Duke Palliative Care team (Appendix A).

Available Resources

Resources available for implementation of the program include support from the program sponsor, Dr. Delani Mann-Johnson, the Duke Palliative Care Team, HF providers acting as committee members, personal computers, a collaborative space to implement an educational session, and professional email to communicate survey links and session date.

Desired and Expected Outcomes

This program aims to improve provider knowledge of palliative care and increase provider willingness to refer heart failure patients to PC through the implementation of a provider educational session with pre-and post-survey questions. We expect the program will provide an opportunity for patient-centered care, increase advanced care planning, enhance goals of care discussions, improve knowledge of referral criteria, and decrease costs associated with HF hospitalizations.

Team Selection

The program was developed with support from the program sponsor and committee members. Dr. Delani Mann, MD served as program sponsor and practice partner. Committee members from various backgrounds include Kerrith McDowell, AGPCNP-BC, of Duke’s Palliative Care Team, as well as Brooke Moyer, MSN, APRN, AGACNP-BC, NP-C, Jade Clausen, RN, MSN, FNP-C, and Dr. Shelley Thompson, DNP, NP-C whom currently work as cardiology providers in the Duke Health System.

Cost/Benefit Analysis

Multiple studies have been done to prove the cost-effectiveness of palliative care for heart failure patients versus usual heart failure management alone. Wiskar et al.

(2017) completed a study comparing 2, 282 heart failure patients utilizing inpatient palliative care and 2, 282 heart failure patients who did not receive palliative care in 22 different states. The results showed patients who received palliative care were 9.3% less likely to be readmitted for HF within 30 days of discharge during a 9-month follow-up period. Average hospital costs for patients without palliative care referral during the follow-up period were about $53, 000 more than patients who received PC during admission.

Although the availability of the costs associated with palliative care consults for heart failure patients is limited, studies show overall hospital costs neutralize or decrease with the utilization of palliative care (Hawley, 2017). Areas of impact include readmissions, length of stay, cost per day, and acute care expense avoidance by transferring patients to their preferred location for receipt of PC (Center to Advance Palliative Care, 2020; Hawley, 2017). Therefore, the benefit of this program considerably outweighs the potential costs of increasing inpatient palliative care consults.

Scope of Problem

Over 1 million American adults are admitted to hospitals annually with HF as their primary diagnosis. Readmission rates within 30 days of discharge are increasing and Medicare costs are estimated to be over $17 billion per year (Olchanski et al., 2020). Palliative care has the ability to decrease the symptom burden of HF, thus decreasing the need for frequent hospitalizations. However, palliative care is consistently underutilized for heart failure patients despite studies proving the benefits regarding cost and quality of life. Further research is needed to investigate the potential advantages of educating providers on palliative care for HF patients.

Goals, Objectives, and Mission Statement

Goals

The goal of this project was to decrease symptom burden, improve patient-centered care, and improve the quality of life for heart failure patients. Fitzsimons et al. (2007) used semi-structured qualitative interviews to assess the unmet needs of heart failure patients. Patients reported social isolation, decreased independence, and increased caregiver burden caused by their deteriorating health status. Additionally, patients reported a lack of resources and availability of community services to address these needs. This often led to depression, anxiety, and overall poor quality of life. Rogers et al. (2017) provided evidence incorporating palliative care into current HF management can improve symptoms associated with HF. Therefore, more research is needed to explore the benefits of palliative care utilization for heart failure patients.

Objectives

In order to assess patient desire for palliative care, individualized care discussions must take place between providers and patients. This will include patient-centered discussions about prognosis, and education regarding the clinical progression of HF including associated symptoms and functional decline. These discussions will provide an opportunity for the patient and provider to discuss goals of care and advanced care planning based on prognosis. Providers can then assess the appropriateness of a palliative care referral determined by the goals of care. Therefore, the objectives for this project include:

- Provide a brief educational course with pre-and post-survey for HF providers in collaboration with the practice partner to educate providers on palliative care's role in HF care, as well as when to refer patients
- Increase provider willingness to refer heart failure patients to palliative care through evaluation of pre-and post-surveys

Mission Statement

Heart failure patients experience recurrent hospitalizations and associated costs due to poorly managed symptoms, resulting in physical and emotional suffering. Palliative care has the ability to provide patient-centered care focused on pain and symptom management, social support, emotional well-being, advanced care planning, and patient-centered goals of care conversations. Despite these proven benefits, palliative care continues to be underutilized for heart failure patients. Consequently, 50% of heart failure patients die within 5 years after diagnosis, and heart failure is the number one reason for hospitalizations nationwide (Bakitas et al., 2013). Therefore, it is a priority to implement provider education on palliative care services. By enhancing provider knowledge of palliative care's role alongside current HF management strategies, HF patient suffering can be decreased and quality of life can be improved.

Application of Nursing Theory

Uncertainty in Illness

"Uncertainty is defined as the inability to determine the meaning of illness-related events" (Mishel, 1988, p.225). Merle H. Mishel created the theory of uncertainty in illness (Appendix B) to explain how persons interpret illness-related events and the role providers play. The theory of uncertainty contains three major themes: antecedents of uncertainty, the process of uncertainty appraisal, and coping with uncertainty (Mishel, 1988).

Antecedents of Uncertainty

According to the theory, antecedents of uncertainty include a stimuli frame, cognitive capacities, and structure providers. The stimuli frame consists of symptom patterns, event familiarity, and event congruency. Symptom patterns, or the extent to which symptoms maintain consistency, or a pattern, directly affect how a person interprets their illness. Without consistency in symptoms, uncertainty is more likely to develop. For example, heart failure patients go through periods of exacerbations which can disrupt the patient’s understanding of their disease status. This allows for uncertainty to manifest. Event familiarity describes the patterns within the patient’s environment. Mishel believes a person creates a “map” influenced by experiences, culture, social resources, and health care providers. This “map” allows a person to navigate their illness with more confidence, decreasing feelings of uncertainty. Event congruence is the level of consistency between illness-related events. When events are unexpected, or a person is not adequately prepared regarding their disease trajectory, there is a lack of congruence, which results in uncertainty (Mishel, 1988).

The stimuli frame can be affected by the cognitive capacities of persons. Lack of or decreased ability to accurately process information can negatively impact the frame, resulting in uncertainty. Physical illness causing pain and discomfort is proven to decrease a person’s ability to complete cognitive tasks. In the case of heart failure, if symptoms are not well controlled leading to feelings of discomfort, dyspnea, and loss of independence, a person’s cognitive capacity will be diminished allowing uncertainty to develop. Additionally, a person’s level of education can directly impact their cognitive abilities and interpretation of the elements of the stimuli frame. Evidence shows persons with less than a high school level of education have higher levels of uncertainty (Mishel, 1988).

Health care providers, or structure providers, have the ability to positively impact how a person interprets their illness and the stimuli frame. As a trusted support system, providers can have discussions with patients about their experiences with their illnesses. This allows the patient to clarify illness-related situations, such as the causes and consequences of symptoms. Sharing information about the manifestations of the illness or experiences in the health care environment can enhance event familiarity (Mishel, 1988). Providers can prepare patients for possible events associated with illnesses, creating predictability and event congruence. Thus, decreasing the possibility of uncertainty.

Process of Uncertainty Appraisal

Mishel (1988) affirms appraisal in uncertainty involves inference and illusion. The inference is the “evaluation of uncertainty using related examples” (p. 228). On the other hand, illusion is the belief formed during uncertainty. Perceptions of uncertainty are the basis for illusions.

Once the patient has completed the appraisal, uncertainty is viewed as a danger or opportunity. When the view is perceived as a danger, there is the possibility of a harmful outcome. For example, uncertainty is shown to increase anxiety levels and depression. Antecedents such as lack of support at diagnosis and during treatment, event unfamiliarity, and lack of symptom pattern all contribute to a dangerous appraisal.

However, when the result of the appraisal is an opportunity, often manifested as hope by the patient, a positive outcome can result (Mishel, 1988).

Coping with Uncertainty

After establishing uncertainty in illness as an opportunity or danger, coping strategies can be employed. Danger appraisals require coping strategies aimed at decreasing uncertainty and addressing emotions associated with the appraisal. One strategy shown to effectively reduce uncertainty is information seeking. This involves the patient discussing experiences with support persons and interdisciplinary team members. With sufficient coping strategies, adaptation can be achieved (Mishel, 1988).

Uncertainty in Heart Failure Patients

Dudas et al. (2012) completed a study on heart failure patients using Mishel's theory of uncertainty in illness to understand the effects of uncertainty and how patient-centered care (PCC) can combat these effects. The study suggests uncertainty is related to feelings of loss of control related to worsening symptoms, increasing complexity of management, emotional burden, and stress. Patient-centered care has the ability to lessen the uncertainty.

Patient-Centered Care and Palliative Care

Patient-centered care declares a person should not be identified by their disease. Instead, a person should be equipped to interpret their experiences and be allowed to express the impact these experiences have on their life. Healthcare providers play a key role in assisting patients with interpretation (Dudas et al., 2012). Palliative care is a valuable resource that can be utilized by providers as an extra layer of support to facilitate patient-centered care. PC team members participate in discussions with patients to assist patients with understanding their illness, navigating care options, and ensuring their needs are met (National Institute of Nursing Research, 2020). By adding an extra layer of support with PC, patients can strengthen map development, adaptation, and coping skills.

Provider Education

Lack of provider education regarding palliative care services continues to be a major barrier to referrals. Educating providers on the utilization of PC for heart failure patients need to be prioritized in order to promote patient-centered care to assist patients in map development. In doing so, providers and PC can work together to prevent danger appraisals, improve interpretation and adaptation, relieve feelings of loss of control, and decrease the uncertainty, thus enhancing patient quality of life.

Work Planning

The design, planning, implementation, and evaluation tasks associated with the completion of a heart failure provider educational course on palliative care can be found in Appendix C. The proposed timeline associated with each task is located in Appendix D. Anticipated expenses for the educational session and related costs are provided in Appendix E. Direct costs identified for this project including labor and materials. The educational course will be provided during hospital hours. Providers choosing to complete the course and surveys outside of work hours via the recorded session will not receive additional reimbursement or incentive. Indirect expenses include the estimated cost of heart failure patient care for providers with the intended reimbursement rate, as well as hospitalization expenses for heart failure patients receiving palliative care versus usual care.

Evaluation Planning

Evaluation planning is an important aspect of quality improvement; it allows measurement of change in a population. This is a vital aspect of quality improvement to demonstrate the effectiveness of the intervention (Zaccagnini & White, 2017). The logic model presented in Appendix F will allow stakeholders to understand the resources needed for the provider educational course, as well as how outcomes will be measured to evaluate the effectiveness of the session. Resources such as hospital faculty and technology are the main inputs for this project. The activity, or intervention, is virtual due to Covid-19 guidelines regarding group gatherings in the hospital. An adjunct presentation modality will be included in the form of a PowToon to serve as an additional resource for providers. Outputs will evaluate virtual course participation as well as overall participation versus completion of pre-and post-survey.

Short-term and long-term outcomes are also included in the logic model. The intention of the provider's educational session is to improve the provider's understanding of palliative care and enhance the provider’s knowledge of how palliative care can be utilized most effectively for heart failure patients. The long-term goal is to increase referrals to palliative care for heart failure patients. However, due to the timeline of this project surveys will assess willingness to refer before and after completion of the session. These outcomes are intended to positively impact the heart failure population by improving pain and symptom management and promoting goals of care conversations, as well as advanced care planning while also reinforcing patient-centered care using Mishel’s theory of uncertainty in illness.

Implementation

Threats and Barriers

A major threat to the implementation phase of the education session is provider misconception surrounding palliative care for chronic illness. Although the session’s purpose was to combat this misperception, providers may not be willing to participate due to their misunderstanding of palliative care roles in chronic illness management. Covid-19 has created an additional barrier, preventing an in-person session where incentives and refreshments could be offered. The presentation will take place at the Hospital Medicine Monthly Group meeting. This meeting is not mandatory but providers are encouraged to attend. Lack of attendance at the meeting on the date of the education session could interfere with adequate sample collection.

Monitoring of Implementation

Monitoring during implementation will include routine assessment of Qualtrics data, ensuring Qualtrics surveys are working properly and periodic communication with potential participants, practice partner, and the Doctorate of Nursing Practice (DNP) chair. An initial email will be sent with the recorded education session from the meeting. This email will request participation from those unable to attend the meeting. Two follow-up emails and one final email will be sent reminding hospitalists of the study over an 18-day period.

Project Closure

Project closure will include an email thanking those who participated, assessment of survey results, and communication of aggregate data with the Duke Raleigh Hospital Palliative Care team. Results will be presented formally at the University (GWU)

Nursing Scholars Day in a presentation. The final paper will be uploaded through GWU Dover Library electronic database. Findings will be uploaded and stored in the Gardner-Webb University Digital Commons.

Interpretation of Data

Qualitative Data

Study participants were asked to name three benefits of palliative care for heart failure patients with a text entry question. Of the 12 pre-survey participants, two left this question blank and three participants only stated two responses. The majority of responses were appropriate, citing symptom management, family support, goals of care discussions, improving quality of life, and decreasing admissions. However, some responses alluded to comfort measures once the patient is no longer a candidate for advanced therapies.

In comparison, only one participant left the question blank in the post-survey. One participant only stated two benefits. The post-survey responses addressed specific benefits discussed during the education session. This included quality of life, decreased hospitalizations and length of stay, goals of care discussions, and symptom management. Two individuals stated improved medication compliance which was not discussed during the education session. However, medication management by the palliative care team and potential side effects impacting diet adherence were addressed during the discussion of a patient scenario.

No participants cited comfort care or hospice-related answers in the post-survey compared to five responses in the pre-survey. These results support the idea education can be effective to combat provider misconception that palliative care is comfort care or hospice care.

Quantitative Data

Participants were asked questions to assess knowledge of palliative care versus hospice care, confidence in referring, appropriate referral time, palliative care roles, and likeliness to refer heart failure patients to palliative care (Appendix G). A two-sample t-test was performed for each question. Significance was assessed using $p < 0.05$. Significant results were found in regards to addressing confidence in referring heart failure patients to palliative care ($p=0.04$). A referral was addressed during the education session. Providers were educated about the Congestive Heart Failure (CHF) Management Standard Work implemented by the hospital in recent months. The standard work identifies risk factors for poor prognosis indicating a need for referral. Educating providers about the concrete criteria, or triggers, established by the standard work may have improved their confidence in referring patients.

Limitations

In five of the 12 pre-survey responses, participants were unable to select multiple answers for the select all that apply question due to survey error. This question addressed the roles of palliative care. These responses were removed from the data prior to analysis. An additional limitation included the lack of mandatory attendance at the Hospital Medicine Monthly Group meeting. This may have impacted the sample size.

Process Improvement Data

Outcomes

The objective to provide an educational course to heart failure providers was met. The course provided information about the hospital's referral criteria, palliative care roles, and exactly when to refer patients. This education allowed providers to feel more confident in referring patients ($p<0.05$). Despite emphasizing the differences between palliative care and hospice care, survey results revealed further education is needed to distinguish between these services.

Another objective of this program was to increase provider willingness to refer. The majority of participants indicated they are somewhat likely or extremely likely to refer patients prior to the education course. Post survey results revealed similar data. Since the education session, anecdotal evidence shows palliative care referrals for heart failure patients did not increase.

Sustainability

The project site has no plans to continue providing education to providers about palliative care for heart failure patients. The course required a minimal budget and was completed during work hours. The hospital palliative care team continues to assess barriers to referral and implement strategies to improve consults. Should long-term data show improvement in consults as a direct result of the education course, the hospital may choose to further the program.

Future Implications

Survey data did not reveal significant results and heart failure patient referrals did not increase despite some willingness to refer. Participants continued to perceive palliative care services as a resource for heart failure patients who are no longer candidates for advanced therapies or in need of comfort care. Further provider education is needed to change perceptions of palliative care's role and associated benefits in heart failure patient care. Future research may benefit from surveying provider needs and barriers prior to education in order to tailor future education programs.

Conclusion

Heart failure patients experience an overwhelming symptom burden leading to recurrent hospitalizations. Palliative care can improve symptom management, decrease the need for hospitalizations, and add an extra layer of support for patients, families, and caregivers by employing patient-centered care. However, it continues to be underutilized by providers. Ongoing education is needed to improve knowledge surrounding palliative care and decrease misconceptions to reduce uncertainty in HF and improve patients' quality of life.

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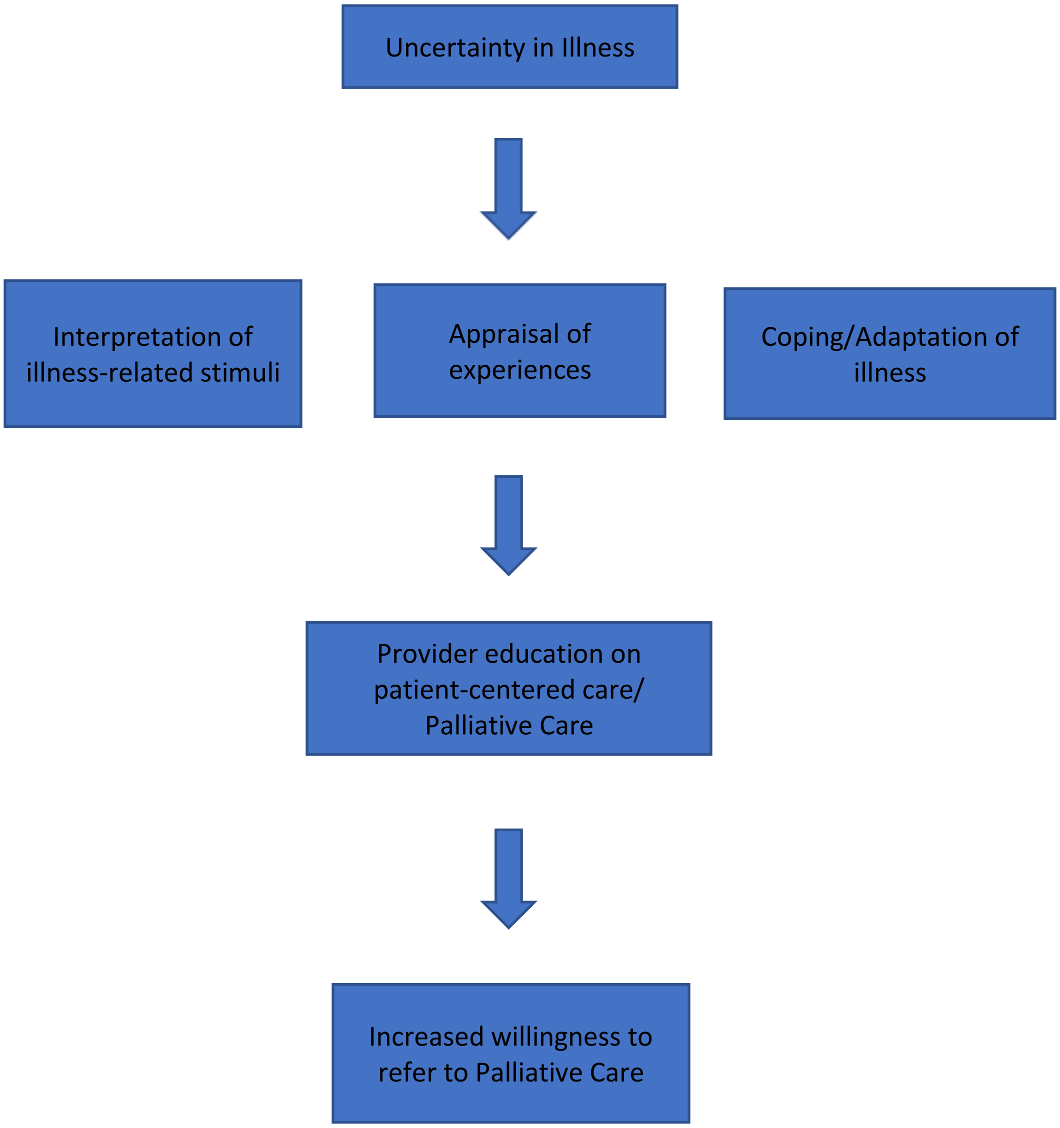
Appendix A

SWOT Analysis

Strengths • Established Palliative Care Team with a desire to increase heart failure patient referrals • Outpatient Palliative Care Services can provide continuity of care once the patient is discharged • Duke Health provides exceptional care and has a multitude of resources	Opportunities • Incorporate PC training into cardiology fellowships (Puckett & Goodlin, 2020) • Routine continuing education for cardiology providers on PC treatment alongside life-prolonging therapies • Routine early referral to PC to provide HF patients with holistic care • Establish a screening tool to “flag” patients for referrals
Weaknesses • Hospital culture- “high-intensity treatment” (Kennedy et al., 2019) • No screening tool for identifying HF patients in need of PC support • Lack of provider and hospitalist education regarding PC utilization for HF patients • Inadequate advanced care planning and goals of care conversations	Threats • The public misconception of PC impeding acceptance of referral • Provider misconception of PC causing low participation • Outpatient primary care providers fear prescribing high dose narcotics to non-cancer patients potentially causing unmet pain and respiratory needs of HF patients

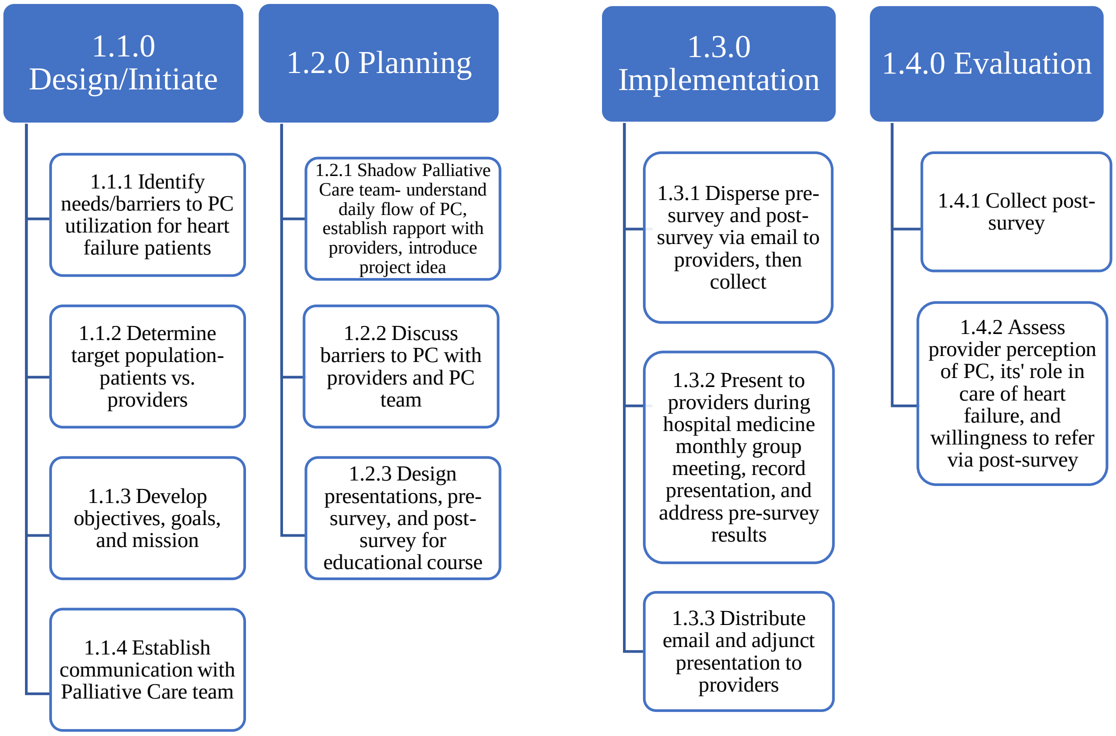
Appendix B

Application of Nursing Theory



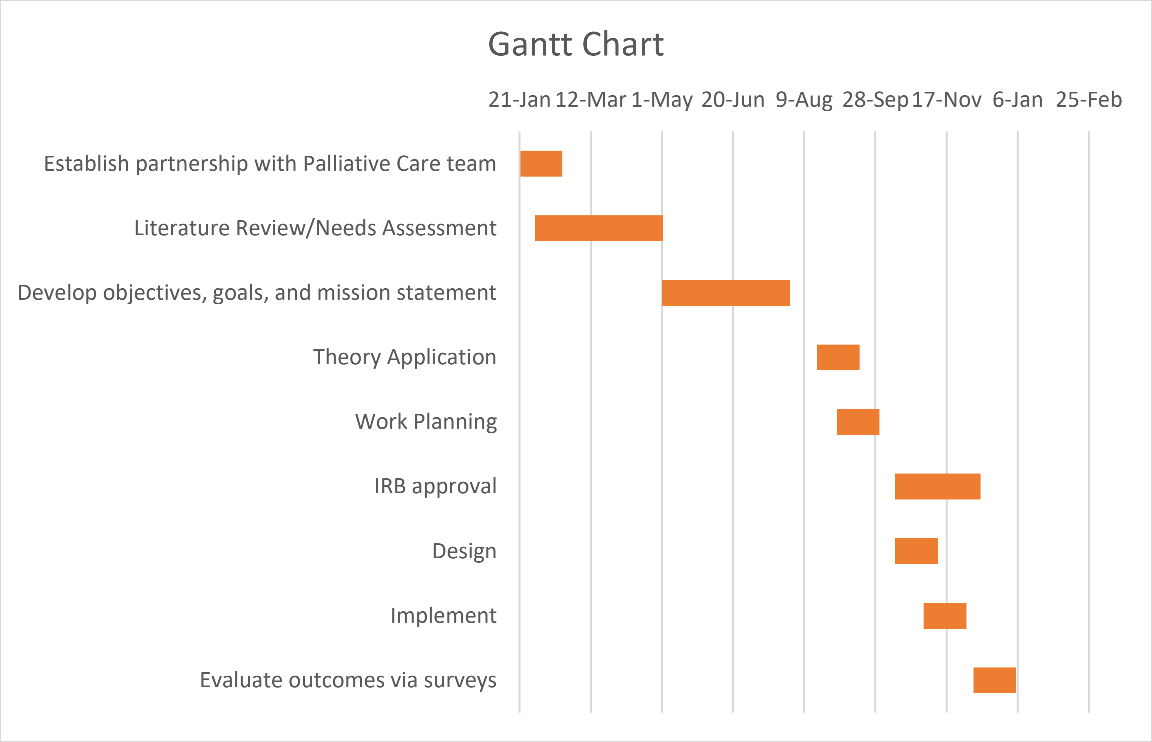
Appendix C

Work Breakdown Structure



Appendix D

Estimated Timeline



Appendix E

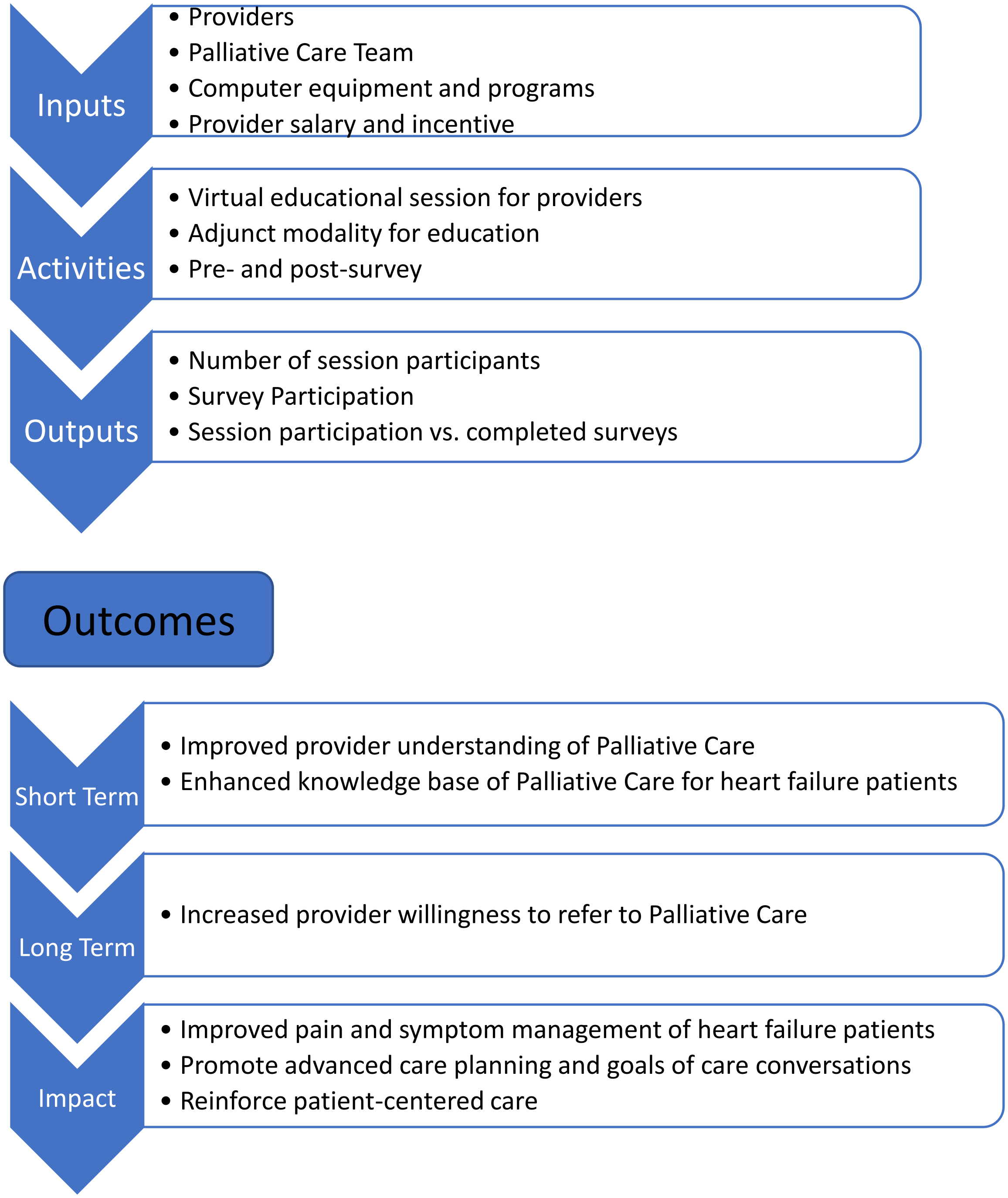
Cost Analysis

Direct Expenses	
Survey distribution via email	$0
Average Cardiologist salary (Raleigh, NC) (Zip Recruiter, 2021)	$135/hour
Average NP/PA salary (Raleigh, NC) (Zip Recruiter, 2021)	$61/hour
Total Direct Expenses	$196.00

Indirect Expenses	
Average cost of hospitalizations for HF patients without PC in 9-month period	$77,643 (Wiskar et al., 2017)
Average cost of hospitalizations for HF patients with PC in 9-month period	$23,200 (Wiskar et al., 2017)

Appendix F

Logic Model



Inputs
- Providers
- Palliative Care Team
- Computer equipment and programs
- Provider salary and incentive

Activities
- Virtual educational session for providers
- Adjunct modality for education
- Pre- and post-survey

Outputs
- Number of session participants
- Survey Participation
- Session participation vs. completed surveys

Outcomes

Short Term
- Improved provider understanding of Palliative Care
- Enhanced knowledge base of Palliative Care for heart failure patients

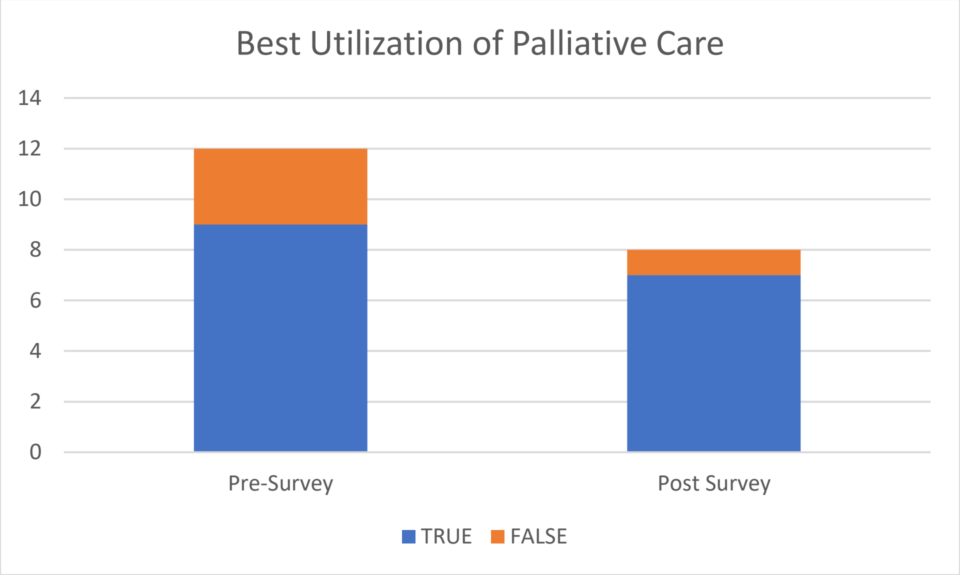
Long Term
- Increased provider willingness to refer to Palliative Care

Impact
- Improved pain and symptom management of heart failure patients
- Promote advanced care planning and goals of care conversations
- Reinforce patient-centered care

Appendix G

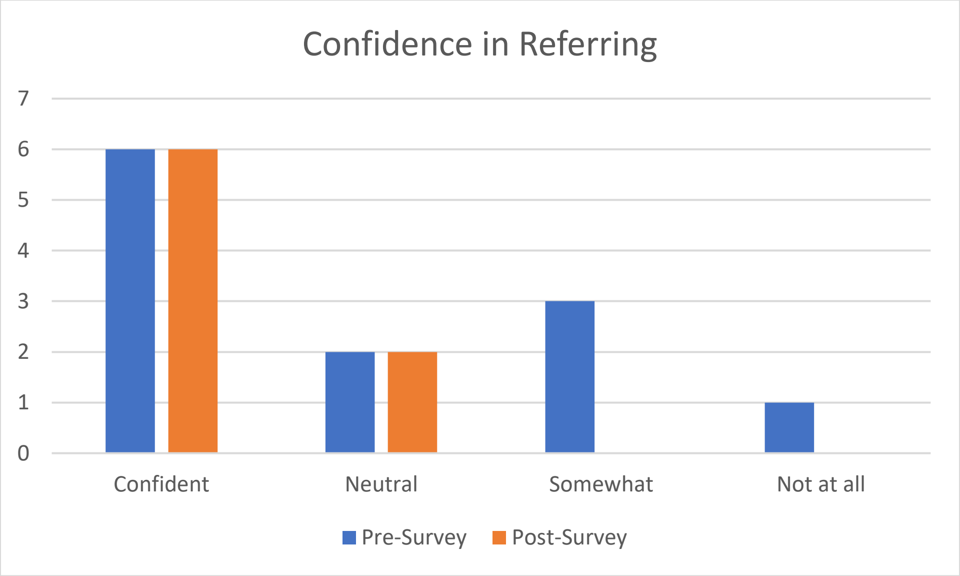
Data Analysis

Question 2: Palliative Care is best utilized when the patient is in need of hospice or end-of-life care. True or False?
(Pre-Survey n=12; Post Survey n=8)

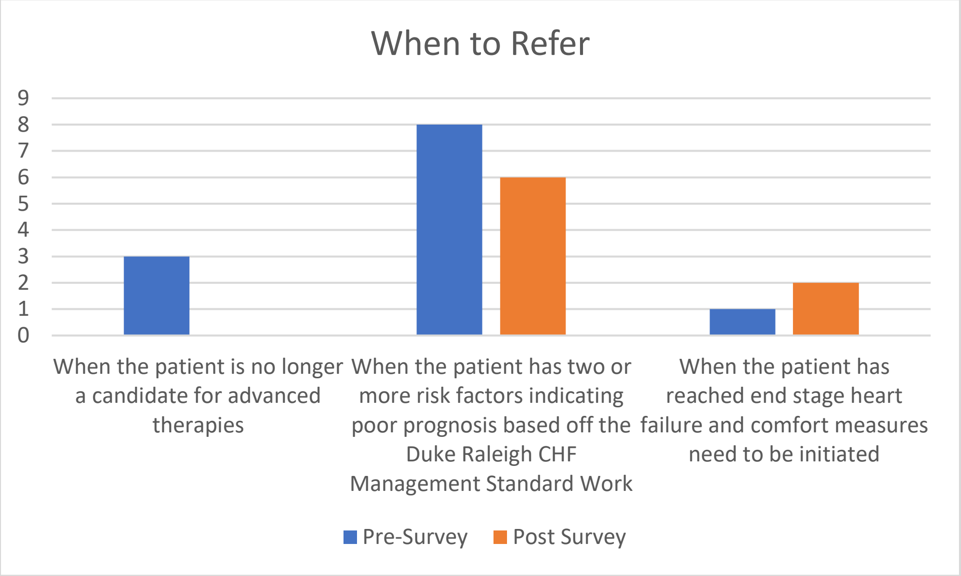


Question 4: How confident are you with discussing Palliative Care with patients, families, and/or caregivers?

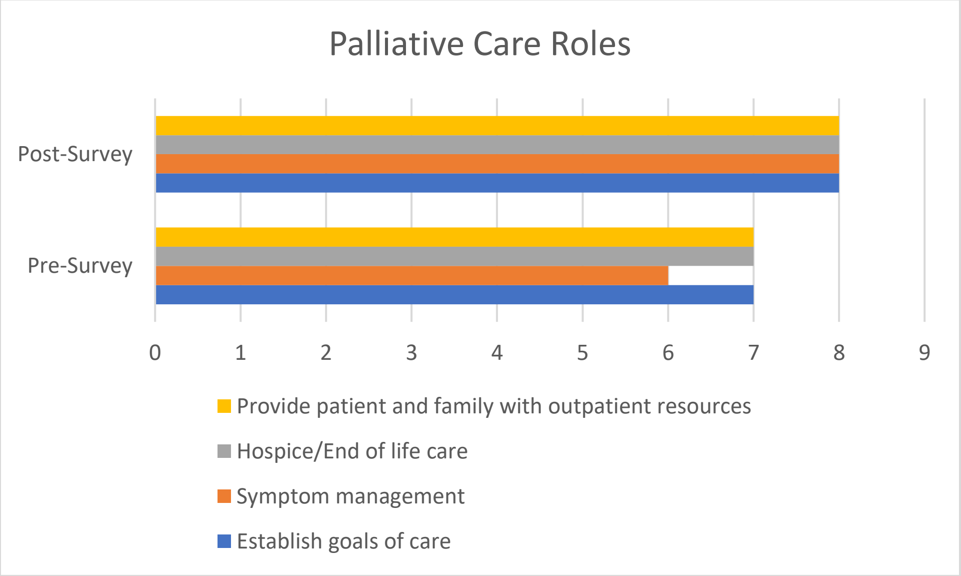
(Pre-Survey n=12; Post Survey n=8)



Question 5: When is the best time to refer heart failure patients to Palliative Care?
(Pre-Survey n=12; Post Survey n=8)



Question 6: What role(s) can Palliative Care play in heart failure patient care? Select all that apply.
(Pre-survey n=7: 5 participants were excluded due to survey malfunction; Post Survey n=8)



Question 7: How likely are you to utilize Palliative Care for heart failure patients? (Pre-Survey n=12; Post Survey n=8)