Symptom Management Protocol and Hospice Nurse Educational Intervention Improves Management of Exacerbated Symptoms

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Dedication

This project and publication is dedicated to all individuals approaching end-of-life and their loved ones.

Acknowledgments

A special thank you to Dr. Nancy Smith, Assistant Professor of Nursing at Salisbury University and chair of my DNP project for all her guidance, assistance, patience, and support. Also, thank you to Heather Guerieri, Executive Director at Compass Regional Hospice for serving as my DNP project committee member. Your support throughout this project was invaluable. Thank you to Compass Regional Hospice staff, most especially the nurses, who offered support to myself and the project.

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Abstract

Problem Statement: Hospice nurses are responsible for managing patient exacerbated symptoms, although research has shown that symptom management at end of life is deficient. The symptom management protocol (SMP) utilized by a rural hospice organization is not sufficient, causing nurses to struggle with the management and documentation of exacerbated symptoms.

Purpose: The purpose of this DNP project was to determine if a revised SMP and related educational intervention will increase hospice nurse self-efficacy, and subsequent improvement in documentation, and follow-up care.

Methods: Self-efficacy of the nurses related to the SMP was measured using a Palliative Care Self-Efficacy Scale and retrospective medical record chart audits comparing three months pre- and post-implementation documentation of patient symptom management provided by hospice nurses.

Results: SMP implementation did demonstrate an increase in nurse self-efficacy related to symptom management over the three-month timeframe. Run Charts revealed an initial increase in nurse documentation of symptom management and follow-up; however, there was decline during the last month of the post-SMP implementation phase, indicating the necessity of ongoing protocol education.

Significance: Adequate symptom management by hospice nurses leads to improved patient outcomes and quality of life, and adequate documentation of exacerbated symptoms will ensure the hospice organization will meet regulatory standards.

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Project Overview

Patients with terminal medical conditions are eligible to receive hospice and palliative care services once a physician or advanced care practitioner deems a life expectancy of six months or less (National Hospice and Palliative Care Organization [NHPCO], 2010). As the end of life approaches, many patients experience exacerbation of symptoms including, but are not limited to, pain, anxiety, agitation, nausea, constipation, and dyspnea, that require frequent monitoring and pharmacologic interventions to control (Wilke & Ezenwa, 2012). While symptom management is the main goal of hospice and palliative care, Wilkie and Ezenwa's (2012) literature review concludes that hospice patient symptom management is inadequate in palliative care and end of life settings, and educational strategies for staff are a vital solution to ensure patient outcomes are achieved.

Hospice and palliative care staff are charged with performing appropriate symptom management interventions both pharmacological and non-pharmacological (Clary & Lawson, 2009). The implementation of symptom management protocols (SMP) serves as a guide for nurses and medical practitioners when managing a patient's exacerbated symptoms (Walling, Ettner, Barry, Yamamoto, & Wenger, 2011). For example, SMP can provide an outline of pharmacological interventions that may be utilized based upon the organization's pharmacological formulary. Nurses can also utilize SMP to help apply appropriate interventions; while also creating a pathway for nurses to use when evaluating patients and documenting the findings (Walling et al.,

2011). Adequate documentation of symptom management is vital to monitor the quality of care administered by the organization, but also is required by insurance companies for the agency to receive reimbursement for patient services rendered (NHPCO, 2010).

Furthermore, the NHPCO (2010) published Workforce Excellence Standards that outline the necessity of a well-developed SMP and staff training before providing patient care to improve patient outcomes. To ensure SMP are utilized effectively by medical staff, the organization must determine the best method for providing the appropriate education for all new and existing staff (Walling et al., 2011). Thorough education of the organization's medication formulary in conjunction with the hospice philosophy can increase compliance with SMP, subsequently improving patient quality of life. Understanding and compliance with SMP will increase healthcare providers confidence when transitioning patients from aggressive treatment to comfort care and can increase provider attention to symptom management at the end of life (Walling et al., 2011).

Problem Statement

According to NHPCO (2016), hospice nurses are responsible for meeting the patient's end of life goals and manage exacerbated symptoms, although research has shown that symptom management at end of life is deficient and not meeting patient's health and quality of life outcomes (Walling et al., 2008; White & Coyne, 2011; Woo et al., 2011). Currently, the SMP utilized by Compass Regional Hospice (CRH), a rural hospice organization is not sufficient, causing nurses to struggle with the management and documentation of exacerbated symptoms. The majority of nurses employed by the

organization have two or less years of hospice experience, resulting in many nurses learning both symptom management and the hospice philosophy simultaneously.

Purpose

Therefore, the purpose of this Doctor of Nursing Practice project is to determine if a revised SMP and related face-to-face educational intervention will increase hospice nurse self-efficacy, and subsequent improvement in documentation, and follow-up care. This protocol will ensure that hospice and palliative care patients receive quality nursing care and symptom management services provided through the elected hospice benefit.

PICOT Question

The PICOT questions is as follows: Does hospice and palliative care nurse's patient symptom management documentation improve and hospice nurses rate their level of self-efficacy higher after the utilization of new SMP and related educational training than those who use the current SMP at three months' post-implementation?

Review of the Literature

A comprehensive search utilizing CINAHL, PsychINFO, MEDLINE, Cochrane Library, and Google Scholar databases, and the subsequent examination of reference lists from relevant articles, were used to identify studies discussing the implementation of a SMP in hospice and palliative care practice settings, as well as educational methods utilized when implementing new healthcare policies. Databases were searched for articles published between 2008 and 2017 to identify the most recent clinical evidence. Key words such as "symptom management protocol," "care pathways," and "end of life

symptom management order sets" were combined with "hospice," "end of life care," and "palliative care" to find research studies utilizing SMP at the end of life (EOL). Key words such as "education methods" and "implementation of new policies" were combined with "nurses" and "policy implementation" to find research studies examining effective educational methods for new policy implementation.

Exclusion criteria included articles not being a research study, studies not available in the English language, studies not relevant to PICOT question, and subject population not identified as hospice or palliative care eligible. Inclusion criteria included appropriate study subject population identified as hospice or palliative care, studies occurring in a hospice or palliative care setting, research studies including symptom management protocols, and studies occurring within the last nine years to ensure the most recent clinical evidence is included. In addition, results were not limited to full-text only articles to ensure all relevant studies were identified. Seventy-six article abstracts were screened and sixty-one articles were deemed as potentially relevant for the systematic review. After the inclusion and exclusion criteria were applied, six primary studies and four systematic reviews were selected (See Appendix A). Articles were evaluated using the Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool. Based upon the appraisal tool, four were a level III strength with low quality, two were a level III with good quality, one was a level V with low quality, one was a level IV with high quality, and one was a level V with high quality. Databases were last searched for

relevant studies on March 14, 2017. A summation of the articles is found within the Literature Review Table (See Appendix B).

Current evidence reveals three themes consistent throughout the literature regarding SMP utilized while caring for EOL patients: (1) SMP increase the clinical management of symptoms experienced by patients at the EOL; (2) education of health care professionals is necessary for the success and utilization of SMP; and (3) the role of nurses to facilitate the implementation of SMP in hospice and palliative care settings. Exploring each of these themes identifies the positive impact SMP have on patient care if implemented appropriately.

Impact on Symptom Management

First, two retrospective studies examined the impact of SMP on a patient's quality of life. A study conducted by Steindal, Bredal, Serbye, and Lerdal (2011) found patients reported approximately the same pain control with a SMP. The second retrospective study revealed management of seizures, nausea/vomiting, and pain was reported as successful by parents who were enrolled in palliative home care or hospice service (Friedrichsdorf et al., 2015). A third retrospective study found patients who were placed on an end-of-life symptom management order (ESMO) protocol were more likely to have a documented discussion regarding EOL preferences. Also, results showed patients who wished for more aggressive treatment at the EOL were less likely to be placed on an ESMO protocol. Failure to identify impending death was identified as a weakness of

some healthcare professionals, resulting in ESMO protocols not being implemented in a timely manner, if at all (Walling et al., 2011).

Educational Needs

Wilke and Ezenwa's (2012) literature review identifies pain, dyspnea, and delirium as the most commonly reported symptoms experienced at EOL while indicating a need for increased educational interventions to improve symptom assessment and management (Wilke & Ezenwa, 2011). Similarly, Watts (2013) conducted a literature review demonstrated that some healthcare professionals view pathways as threatening to professional autonomy and standardized care that may not be relevant or applicable to all patients (Watts, 2013). To address these issues, Watts (2013) asserts adequate training of the SMP is necessary for utilization by healthcare professions in an effective manner. However, research documentation of nursing interventions deteriorated after the implementation of end-of-life care (EOLC) pathways, which must be further explored to determine the most effective method for improving documentation (Watts, 2013).

In addition, a literature review conducted by Phillips, Halcomb, and Davidson (2011) reveals EOLC pathways are being implemented without vigorous evidence. Phillips et al. (2011) identify the absence of randomized clinical trials and EOLC pathways are frequently implemented due to their ability to act as a guide for EOL care. Another literature review recommended outlining a list of pharmacologic and non-pharmacologic interventions to manage pain (Dalacorte, Rigo, & Dalacorte, 2011). It was also identified that education of palliative care providers achieves effective symptom

management and provides guidelines for palliative sedation to limit suffering at the EOL (Dalacorte et al., 2011).

Woo, Lo, Cheng, Wong, and Mak's (2011) conducted a survey which revealed healthcare professionals must ensure proper documentation of symptoms and subsequent symptom management interventions be performed. In addition, the study found that many healthcare professionals suffer from emotional exhaustion, depersonalization of patients, and death/dying anxiety. Each of these findings necessitates staff education regarding death/dying, symptom management, and patient advocacy related to EOL care (Woo et al., 2011).

Further validating the need for additional education regarding symptom management at EOL, White and Coyne (2011) conducted a survey of Oncology Nursing Society members who ranked the core competencies of symptom management; methods for discussing death/dying with patient and families; and, the palliative care philosophy as vital to providing quality care at EOL. Therefore, the findings suggest the need for continued efforts to define and improve symptom management via nursing interventions and education programs (White & Coyne, 2011). Walling et al.'s (2008) survey revealed healthcare professionals have difficulty determining titration of medications to adequately manage symptoms. Education was cited as a necessary component for staff to feel confident when implementing ESMO (Walling et al., 2008).

Nurses as facilitators

Wilke and Ezenwa's (2012) literature review reveals symptom management at the EOL may drastically improve the quality of life through nurse-led hospice and palliative care interventions; however, inadequate symptom management continues to exist for many EOL patients. Watts' (2013) literature review reveals practitioner-led EOLC pathways are most effective, and quality improvement methodologies assist in the facilitation of EOLC pathway implementation. To increase the effectiveness of EOLC pathways, Phillips et al. (2011) identify the necessity of strong clinical leadership, education regarding the EOLC pathway, and clinically competent healthcare providers. In addition, White and Coyne (2011) assert nurses are frontline caregivers for patients approaching EOL and conclude nurses need to be included when planning symptom management interventions and education sessions.

Implications for Practice

Based on the literature, SMP can improve symptom management; however, healthcare professionals must have clearly defined procedures and guidelines to follow for the protocols to be effective (Friedrichsdorf et al., 2015; Steindal et al., 2011; Walling et al., 2011). The findings conveyed suggest the importance of identifying inadequately managed symptoms and incorporating the symptoms into a SMP (Friedrichsdorf et al., 2015). Still, the literature indicates the need for additional research as there are a lack of randomized-controlled trials supporting SMP (Phillips et al., 2011). Numerous, reproducible randomized-controlled trials will assist healthcare professionals to

determine if SMP are the best method for increasing symptom management at the EOL. Furthermore, the literature failed to describe the components necessary for a strong SMP, not allowing interpretation from clinicians to implement these best practices.

In addition, the literature findings regarding education expose the importance of educational interventions for healthcare professionals to increase the confidence and understanding related to SMP implementation (Watts, 2013; White & Coyne, 2011; Woo et al., 2011). Several authors have identified the inadequate symptom management that occurs in EOL care, indicating a need for education of SMP (Walling et al., 2008; White & Coyne, 2011; Woo et al., 2011). Symptom management protocols must be accompanied by adequate staff education (Phillips et al., 2011). However, specific educational interventions were not discussed in the literature. Also, nurses are the frontline EOL caregivers who may utilize their clinical expertise to implement evidence-based practice changes that improve symptom management (White & Coyne, 2011). Thus, collaboration with nurses skilled in EOL care during the development and implementation of SMP allows for greater facilitation and success for such protocols (Walling et al., 2008).

Therefore, based upon these findings, evidence must be collected to identify the current symptom management deficiencies occurring in clinical practice prior to the implementation of an SMP. Understanding the symptoms that are inadequately managed will enable the development of a strong management protocol. A method for measuring the adequacy of symptom management before and after implementation of the protocol

will permit for the identification of improvement or deterioration of symptoms. Dissemination of the subsequent findings post-implementation will assist with strengthening the evidence related to SMP.

Also, discussions should occur with nursing staff to determine the current symptom management practice and identify all barriers staff believe may inhibit adequate management. Proper education of nursing staff prior to implementation will enable the nurses to comprehend the need for the protocol, understand the protocol, and address staff concerns. In addition, surveying staff utilizing a valid and reliable tool will identify the self-efficacy of nurses related to symptom management before and after implementation. This will permit for the measurement of nurses' symptom management competency.

Collaboration between researchers and administration, specifically the Quality Improvement Manager, Director of Nursing, Nurse Practitioner, and Nurse Educator, will safeguard a strong SMP is developed. Incorporating the evidence from research, involvement of a nurse facilitator within the organization will increase the success of the protocol; further collaboration with administration will identify the most appropriate facilitator. Finally, collaborating with the organization's administration will allow for the development of an appropriate educational intervention related to symptom management interventions and the protocol.

Theoretical Framework

Conceptual frameworks utilized for SMP implementation are absent from the available literature. The influence of nurses to create and implement change for the improvement of patient outcomes, lended this project to the use of Albert Bandura's (1977) Social Cognitive Theory. Self-efficacy is a central concept of this theory that was used to guide this project. According to Bandura (1977), self-efficacy is described as a person's belief or confidence in his or her ability to succeed in a particular situation. Self-efficacy focuses on the behavioral changes influenced by the person's personal beliefs and external reinforcement. According to this behavioral change theory, behavior is influenced by an individual's motivation, which is subsequently impacted by reinforcement, whether positive or negative. Positive reinforcement serves to illicit a desired behavior. In conjunction, an individual's self-motivation guides behavior by setting self-prescribed standards to perform positively and correct any dissatisfying behaviors. An individual's perceived self-efficacy influences the performance and coping mechanisms exhibited.

To promote positive reinforcement, Bandura identified the following behaviors as necessary for improved self-efficacy: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977). Performance accomplishments consisted of developing an SMP that provides clear guidelines. To provide proper training regarding the SMP, an online Blackboard course was created with embedded videos demonstrating the use of the protocol and proper documentation of

symptom management measures. Vicarious experience builds on the modeling behavior and includes live modeling or demonstration of the expected behavior. To address the vicarious experience component, the online Blackboard course with embedded videos modeled the symptom management behaviors expected by CRH and provided nurses with an opportunity to visualize the use of the protocol. Social persuasion involves the use of verbal suggestion to coach individuals on coping methods to address certain situations. Once again, the videos embedded within the online Blackboard module provides clear coaching of how to utilize the SMP in the practice setting. Verbal examples of symptom management techniques and proper documentation further provided social persuasion to the nursing staff. Emotional arousal involves decreasing the fear or anxiety related to situations that may hinder performance. Methods for decreasing anxiety of the novice hospice nurses included the development of the clearly written SMP to assist nurses to provide comfort care using symptom management measures while transitioning the patient from aggressive medical treatment (Bandura, 1977).

Thus, the Self-Efficacy theory model was applied when implementing the SMP (See Figure 1). This involved surveying nursing staff to determine their current self-efficacy related to symptom management prior to protocol implementation. Clear expectations provided by a written protocol assisted with increasing self-efficacy and enforcing the organization's expectation of identified symptom management interventions. Educational interventions provided an online learning session for nurses to

obtain an understanding of the protocol and clarify expectations. Role modeling of symptom management interventions by administrative staff positively reinforced the SMP and set the standard of practice. Positively reinforcing the utilization of the protocol also assisted with improving symptom management. After implementation of the SMP, nursing staff was re-surveyed to measure self-efficacy related to symptom management to determine the impact the educational interventions and SMP exhibited on behavior.

Methodology

Effective symptom management leads to improved quality of life for patients, a decrease in symptoms, as well as a peaceful passing of patients at the end of life, all of which are goals of hospice and palliative care (Watts, 2013). Patient symptom management is defined as care given to improve the quality of life of patients who have a terminal medical condition (NHPCO, 2010). Since nurses are responsible for symptom management, the self-efficacy of nurses is important to measure. Self-efficacy was defined for this project as the nurse's self-reported sense of self-confidence related to caring for patients at the end of life and symptom management (Phillips, Salamonson, & Davidson, 2011). Therefore, this project consisted of four components: (1) chart audits, (2) symptom management protocol (SMP) development, (3) measuring nurse self-efficacy, and (4) nurse education of the SMP.

Participants

The project outcomes specifically examined the self-efficacy of novice hospice nurses' due to their newly developing knowledge of hospice and palliative care philosophy and protocols. Novice hospice nurses are defined as nurses employed in hospice and palliative care for two years or less. During the pre-implementation phase, thirteen full-time nurses, one part-time, and four per-diem nurses were employed by the organization. Nursing staff is separated into inpatient staff and homecare staff, although nurses can work in both settings.

Setting

The project was implemented at Compass Regional Hospice (CRH), a rural hospice in Maryland, which provides end of life care to patients residing in a three-county radius. The average patient census is 80, although the census fluctuates daily due to the dying process. Hospice services are provided in patients' homes, assisted living facilities, skilled nursing facilities, and two inpatient centers owned by the organization. Patients with exacerbated symptoms typically requiring hospital admission for management may be admitted to the organization's Hospice Center for general inpatient care. Patient orders are provided by the organization's nurse practitioner, medical director (physician), or the patient's primary care provider.

Upon admission into hospice services, the patient or medical representative signs a consent informing them charts may be audited for quality assurance purposes. Symptom management data was collected via retrospective chart audits and did not

include patient identifiers, resulting in patients not being specifically informed of the project. Institutional Review Board (IRB) paperwork was submitted in April 2017 at Salisbury University and approval was obtained in May 2017 prior to implementation of the project. Compass Regional Hospice does not have an IRB.

Prior to the implementation phase, the following tasks were performed: a needs assessment in relation to the project, retrospective chart audits to gather supporting data, a review of the current SMP, and collaboration with staff for the SMP development. Endorsement for the project was secured from the administrative clinical staff at CRH. Key stakeholders were identified to ensure project buy-in and powerful individuals who should be included in the project development (See Appendix C). A gap analysis was performed by interviewing administrative staff and verifying the need for the project (See Appendix D). In addition, a timeline for the project was created (See Appendix E).

A strengths, weaknesses, opportunities, and threats (SWOT) analysis was performed to determine the organization's internal strengths and weaknesses, as well as the external threats and opportunities related to the project (See Appendix F). Major strengths of CRH include the high level of support from administration regarding the project and support from key stakeholders, particularly the nursing staff, to improve patient symptom management. Collaboration with administration, including the Quality Improvement Manager, Director of Nursing, and Nurse Educator, has led to a seamless process during the pre-implementation phase of the project. Major weaknesses of CRH include the necessity for nurses to adapt to the new SMP and change current

documentation practice. The nurse practitioner and medical director resigned during the pre-implementation phase, resulting in the loss of key stakeholders with valuable insight regarding symptom management. Nurse turnover rates at CRH are high with staff reporting the emotional strain secondary to numerous patient deaths as the major reason for resignation. It is rare for nurse case managers at CRH to stay in the position for longer than 2 years and the replacement nurses hired often do not have hospice experience, resulting in a high percentage of novice hospice nurses employed at CRH. Opportunities for CRH in relation to the project include the ability to meet regulatory standards, receive full monetary compensation from insurance companies, and a potential increase of patient and family satisfaction with end of life services. Threats to CRH include the update of the EMR program, which may result in major changes in the physical process of documentation. Interventions and leverage to address each of the identified assessments are outlined in the SWOT analysis.

Tools

Charts were audited for all patients admitted during the pre- and post-implementation phases and followed for the first 30 days of service. The Nurse Documentation of Symptom Management Data Collection Tool was used to audit each individual patient's chart (See Appendix G). The tool was created by the project lead to match each of the components identified in the new SMP including assessment, follow-up and documentation of symptoms reported by patients, therefore no reliability or validity is available for the tool. In addition, the twelve-item Palliative Care Self

Efficacy Scale (PCSES) (See Appendix I), a valid and reliable tool, measured nurses' symptom management self-efficacy (Phillips, Salamonson, & Davidson, 2011). The PCSES tool measures an individual nurses' ability to manage symptoms frequently present at end of life including pain, dyspnea, nausea/vomiting, terminal delirium, and constipation. Also, the PCSES tool assesses the nurses' self-efficacy level when discussing end-of-life options with patients, answering questions regarding medications and the dying process, and providing support to the patient's upset family members. A Likert scale (1 = Need further basic instruction, 2 = Confident to perform with close supervision/coaching, 3 = Confident to perform with minimal consultation, 4 = Confident to perform independently) is used for nurses to rate their confidence level for each of the twelve items. The psychometric scale is reliable with a Cronbach's alpha of 0.92 and validity is proven with $P<0.001$ (Phillips, Salamonson, & Davidson, 2011). The (PCSES) tool has been used in other research studies to measure the self- efficacy of registered nurses and nursing assistants comparing the scores to determine if there is a difference in reported self-efficacy between the two disciplines with no significant difference identified in relation to addressing patient end-of-life concerns (Phillips, Salamonson, & Davidson, 2011). Clinicians with palliative care training courses reported a higher self-efficacy rating, although the type of training provided in the courses was not defined (Phillips, Salamonson, & Davidson, 2011). Permission was obtained from the creator of the PCSES survey for use in the project (See Appendix K). The data collected during chart audits were entered into an Excel

spreadsheet on a password protected computer.

Intervention and Data Collection

Chart Audits. Three months pre- and post- implementation, a retrospective electronic medical record chart audit evaluated nurse symptom management documentation. Charts were audited for all patients admitted during the pre- and post-implementation phases and followed for the first 30 days of service. Symptom management data was collected per the Nurse Documentation of Symptom Management Data Collection Tool (See Appendix G). One tool per patient was completed electronically using the chart data and saved to the DNP student's password-protected computer. Retrospective chart audits for three consecutive months between March 2017 and May 2017 were completed to collect baseline data in June 2017. Post SMP implementation and educational intervention in June 2017, retrospective chart audits of nurse documentation for three consecutive months between July and September 2017 data collection was completed in October 2017. All chart audits will be performed by the project lead. The number of charts audited was 263 for the project timeframe.

Symptom Management Protocol. Based upon the literature, a written SMP was created in collaboration with the organization's Nurse Practitioner, Quality Improvement Manager, Director of Nursing, and Nurse Educator (See Appendix H). Prior to project implementation, nurses were required to perform a comprehensive physical assessment weekly and assess for symptoms required by Medicare; however, no protocol reflected this expectation. Assessment findings were documented in the Focused and

Comprehensive Visit Form within Suncoast Solutions, the EMR software. The newly created SMP outlined these expectations.

Nurses, prior to project implementation, were documenting symptom management interventions and subsequent patient responses in different locations within the chart or were omitting documentation of interventions performed. The new SMP standardizes documentation by specifying interventions that are to be documented within the comment box for the symptom or the clinical narrative note if the symptom does not have a specific box. In addition to the intervention implemented, nurses must document the patient's response to the intervention and the patient/family teaching performed. Symptoms experienced by the patient must include a rating by the patient, specifically mild, moderate, or severe with pain rated using a numeric scale. Documentation for patients unable to rate a symptom must include the reason the patient is unable to rate the symptom and the clinician's rating of the symptom within the clinical narrative. The Pain Assessment in Advanced Dementia (PAINAD) form must be completed for patients unable to rate pain.

To identify appropriate pharmacologic interventions, the SMP refers nurses to the algorithms found within the organization's medication formulary. The algorithms of common symptoms indicate hospice approved medications and dosages that assist with symptom management. If the medications and/or dosages are not successful at managing symptoms or contraindications are present, the SMP requires the nurse to contact the patient's prescribing clinician or the organization's Pharm.D. In addition, nurses were

struggle with timeliness of follow-up visits for symptom management. The new SMP specifies a daily phone call until the symptom resolves for patients reporting a symptom rating of mild with a visit occurring if indicated after speaking with the patient or caregiver. Symptom ratings of moderate to severe require a daily nursing visit until the symptom resolves. The final SMP was presented and approved by the CRH Quality Improvement Team during the pre-implementation phase. A hardcopy of the SMP was placed in the organization's policy manual and a copy was uploaded in the Company R-drive for easy access by all existing staff and new hires. The new SMP was implemented in July 2017 (See Appendix E).

Nurse Self-Efficacy. Bandura's Self-Efficacy Theory (1977) identifies the necessity to determine the self-efficacy of an individual related to the performance of a task. Therefore, nurses' self-efficacy related to symptom management was measured pre- and post- SMP implementation using the Palliative Care Self Efficacy Scale (See Appendix I). All nurses employed within the organization completed the survey in June 2017 and again in October 2017. According to Moran, Burson, and Conrad (2017), there is approximately a 10 to 20% fall off rate with survey responses; therefore, an 80% response rate from the 18 nurses employed within the organization was initially considered an acceptable response rate. However, only 12 of the 18 nurses responded to the pre-SMP survey (66%). Two nurses resigned during the implementation process and no new nurses were hired in replacement. Only 10 of the 16 eligible nurses responded to the post-SMP survey (62%). Therefore, the response rate was lower than anticipated.

Baseline nurse self-efficacy was measured using the 12-item Palliative Care Self Efficacy Scale (PCSES) in May 2017 (See Appendix I). The project lead emailed all of the organization's clinical nurses responsible for patient care the link to the survey via their CRH email addresses. Participation in the survey was voluntary and participants completed demographic data and pre-implementation Palliative Care Self Efficacy Scale electronically without coercion via password protected free online cloud Survey Monkey® tool. A statement was placed on the survey informing nurses that the resulting survey data may be published and completion of the survey served as consent for project participation. The email with the survey link also included an explanation of the project (See Appendix J). Participants had two weeks to complete the survey after the initial link was sent. An email reminder was sent via Survey Monkey® after one week and again one day prior to the required submission date.

The use of Survey Monkey® allowed for easy dissemination of the Palliative Care Self Efficacy Scale survey and was a reliable tool for distribution and gathering results. Demographic data (age, years of experience, training, level of education) and survey results was presented separately as de-identified aggregate data of all participants (percentages, ranges, averages). Each participant was identified only by a unique subject number. Pre- and post-implementation survey results was compared and presented with a unique identification number separate from demographic data. Three months post implementation, participants were contacted via CRH email to voluntarily complete without coercion post-implementation Palliative Care Self Efficacy Scale via password

protected Survey Monkey® using their subject identification number (see Appendix I). All data will be deleted after the completion of the project.

While all nurses providing direct patient care were surveyed, data from novice hospice nurses were carefully examined. Novice hospice nurses are learning the hospice philosophy, policies, and protocols simultaneously while acclimating to a new role. The Self-Efficacy Theory asserts individuals with high self-efficacy are able to follow process and achieve goals, each of which are important to delivering safe, evidence-based hospice care (Bandura, 1977). In addition, data gathered from the pre-implementation survey assisted in the development of the educational intervention of the SMP.

Education of Protocol. The project lead educated administration staff regarding the 'Symptom Management Protocol Teaching Outline' plan and created an online Symptom Management Protocol education module for nurses in June 2017 (See Appendix L). All staff nurses received an email via CRH email accounts from the Nurse Educator containing the link to an electronic learning module, using Blackboard, a learning management system. Access to the online learning module occurred two weeks prior to SMP implementation and nurses had the two-week period to complete the module. The online learning module was comprised of several sections with videos discussing the policy and demonstrating the proper documentation of symptom management within the organization's electronic medical record system. Using the module, documentation of symptoms, including the requirements specified in the SMP, was positively enforced with staff. The online module ended with a five-question quiz to

test the nurses' knowledge of the SMP. Nurses were instructed to complete the training during the regularly scheduled workday resulting in the nurses receiving compensation for the education of the SMP. Completion of the online learning module was mandatory by all nurses employed within the organization and was enforced by the Nurse Educator and Clinical Managers. A copy of the SMP was emailed to all nurses, as well as uploaded to the organization's electronic protocol file for easy reference.

Project Implementation

Project implementation began in June 2017 and followed the proposed outline (Appendix E). The SMP was implemented and evaluated as part of a Doctor of Nursing Practice (DNP) scholarly project. Following approval from Salisbury University's institutional review board (IRB) in June 2017, the Quality Improvement project was conducted over six months. All hospice nurse's self-efficacy survey responses were kept confidential, and all numerical data were provided in aggregate.

An online Blackboard course was created which contained video demonstrations of symptom management interventions and the documentation process. The link to the Blackboard course and SMP were disseminated via CRH email to all nurses employed by the organization in June 2017. Completion of the Blackboard course was mandatory and monitored by the Clinical Educator at CRH. Nurses were given two weeks to complete the course prior to protocol implementation. Implementation of the SMP began on July 1, 2017. Staff were reminded of the SMP implementation on the start date through a

face-to-face nursing update meeting and an email sent via the CRH outlook account to all nurses.

The Palliative Care Self-Efficacy Survey was disseminated using Survey Monkey® via CRH email to all nurses providing direct patient care. The survey was distributed pre- and post-SMP implementation. The initial survey was distributed the last two weeks in June. Nurses were given two weeks to complete the survey and received reminder emails one week and one day prior to the due date. The post-SMP Palliative Care Self-Efficacy Survey was disseminated to the same nurse population via CRH email three months after SMP implementation. The survey was open for two weeks and nurses once again received an email reminder one week and one day prior to the due date.

Chart audits occurred for three months pre-SMP implementation from April to June 2017 and three months post-SMP implementation from July to September 2017. As planned, patient charts were audited from the day of admission through the first thirty days of service. Audits for the 263 applicable charts formally began in June and were completed in November 2017. Data analysis for the chart audits and Palliative Care Self-Efficacy Survey occurred in January and February 2018.

Summative Evaluation

The revised SMP and educational intervention was successfully implemented and adopted by the organization to improve documentation and symptom management. The identified target population of nurses providing direct patient care at Compass Regional Hospice was surveyed to determine if the implementation of an SMP increased self-

efficacy related to symptom management. Overall, results reveal no significant statistical improvement in nurse self-efficacy post-SMP implementation; however, the project was successful in providing a specific written expectation related to symptom management for nurses and subsequently benefited hospice patients with exacerbated symptoms. The project received overwhelming support from CRH's clinical administrators for the implementation of the SMP. Administrators communicated support to the nursing staff verbally and via email that created buy-in for completion of the Blackboard training course. The SMP formally adopted the SMP as an agency protocol and organization guidelines require nurses to adhere to protocols. However, encouragement from administration did not have a large enough impact to increase participation in the self-efficacy survey.

The overall response rate to the Palliative Care Self-Efficacy Scale was significantly lower than the anticipated 80% response rate set during project development. During the implementation phase, two of the novice hospice nurses included in the pre-implementation survey resigned and one novice nurse went on extended medical leave resulting in a reduction in staff. No new nurses were hired to replace the nurses, as current per diem staff members were utilized. In conjunction with a staffing shortage, CRH experienced an influx in patient census, increasing nurse workload. In addition, during project development it was anticipated 180 charts would be audited; however, due to the influx in patient referrals and admissions, a total of 263 charts were audited, resulting in the chart audit process taking longer than expected. The

Nurse Documentation of Symptom Management Data Collection Tool utilized for audits was easy to use, but chart audits proved tedious due to the number of eligible patient charts.

Implementation of the SMP was overshadowed by the implementation of a new electronic medical record (EMR) system in October. Staff attended extensive training sessions in September while providing care to a high patient census. The implementation phase also coincided with the highest vacation time. In addition, chart audits revealed that while patients are assigned one nurse case manager, multiple nurses perform visits due to staff vacations or to assist those with a high patient census. After hours nurses also provide visits to patients who experience medical crisis at night and on weekends. Therefore, chart audits with missing symptom management documentation cannot always be attributed to the primary nurse case manager. The patient chart was reviewed for the first thirty days of hospice service, during which a minimum of one weekly nursing visit was performed. Documentation missing during any visit resulted in a delinquency in the patient's entire chart. This proves how vital proper documentation during every patient encounter is for patient care, patient outcomes, and monetary reimbursement.

Analysis

The first outcome measured was the self-efficacy of novice hospice nurses related to symptom management reported pre- and post- project implementation. To determine if there was a difference in nurse rated self-efficacy, the response percentages for the Likert scale utilized by the PCSES were compared pre- and post-SMP implementation. The

second outcome to be measured was the presence of documentation of symptom management interventions within the patients' EMR. To display performance results and potential improvement, run charts present graphic results of symptom management collected via chart audits. It is anticipated as the self-efficacy of the hospice nurse changes due to project interventions, a difference in the documentation of symptom management interventions will be seen.

Chart Audit Results

Pre-SMP implementation chart audits totaled 133; post-SMP implementation chart audits totaled 130. Run charts (Table 1) were created for each of the 10 elements in three major categories (assessment, follow-up and documentation), collected via the Nurse Documentation of Symptom Management Data Collection Tool (Appendix G).

Assessment. Results reveal CRH nurses perform assessment of symptoms at least weekly during skilled nursing visits and as needed. April, the first month pre-SMP implementation data was collected, revealed one chart missing documentation of this element while the remaining pre- and post-SMP implementation months had 100% of charts reflecting assessment of symptoms at least weekly. Documentation of a Focused and Comprehensive visit once daily for patients receiving general inpatient level of care, was present in 100% of charts audit both pre- and post-SMP implementation. Once daily documentation using an Inpatient Flowsheet for patients receiving general inpatient level of care occurred 100% of the time during the pre-SMP implementation period, decreased to 67% during July and 83% during August, but rose to 100% during the final post-SMP

implementation month of September. Documented comprehensive assessments for patient's reporting pain fluctuated monthly with results revealing 78% in April, 73% in May, 62.5% in June, 85% in July, 97% in August, and 75% in September. Utilization of a numeric pain scale for patients able to verbalize pain and the use of the PAINAD scale for patients unable to communicate pain steadily increased with results revealing 62% of charts meeting this element in April, 72% in May, 63% in June, 81% in July, 95% in August, and 82% in September.

Documented rating scales for patients reporting constipation, dyspnea, anxiety, agitation, and nausea/vomiting fluctuated during both pre- and post-SMP implementation data collection. Charts audited during May, July, and August met the element 100% of the time, while charts audited in September revealed two charts missing documented rating scales, decreasing the monthly percentage to 93%. For patients unable to rate symptoms, documentation of the symptom including the reason the patient was unable to rate the symptom and the symptom severity was high during the months of April, May, and August with results meeting the element 97%, 100%, and 92% respectively. Charts audited in June met the element 73% of the time, 76% in July, and 65% in September.

Follow-up. Documentation of daily telephone calls to patients with mild symptom ratings until the symptom resolved steadily rose from April through August and slightly dropped during the month of September. April was the lowest month with chart audits revealing telephone calls occurring only 13% of the time and August being the highest month with telephone calls occurring 91% of the time. Telephone calls decreased

to 63% during the month of September. Notification of the Interdisciplinary Team (IDT) and/or nursing administration to determine the appropriate follow-up visit for patients with chronic moderate to severe symptom ratings was 100% during the months of April, May, June, July, and September. Results decreased to 50% during the month of August, although only two charts qualified for this criterion and one chart lacked documentation of collaboration with the IDT or nursing administration causing a significant decrease in results for the month.

Documentation. Anxiety, pain, and dyspnea were the most common symptoms missing documentation. Patient's experiencing nausea and vomiting were missing documentation four times and patient's experiencing constipation were missing documentation twice.

Palliative Care Self-Efficacy Survey Results

Sixteen nurses responded to the initial Palliative Care Self-Efficacy Survey (PCSES) and ten nurses responded to the post-SMP implementation PCSES. During the pre-implementation survey, Compass Regional Hospice employed 18 nurses. Two nurses resigned during the implementation phase of the project reducing the number of employed nurses to 16. One nurse was also on medical leave during the post-implementation period and did not respond to the survey. A poor survey response rate was anticipated due to the staff experiencing the effects of short-staffing; however, the pre-implementation survey response rate was 66% and the post-implementation survey response rate was 62.5%. While the anticipated 80% response rate was not met for either

the pre- or post-implementation survey, the actual response rate was similar for both phases. The two novice nurses who resigned during the implementation phase did complete the pre-implementation survey. No new nurses were hired during the implementation phase of the project.

Demographic data. Survey results reveal 100% of the nurses received on the job training only, but the data was contradicted by 25% of nurses reporting taking short courses or other formal training not leading to a specialist qualification (See Table 3). Survey participants years of experience as a nurse ranged from 1 to 21. Sixty-six percent of nurses had been a hospice nurse for two years or less, zero nurses had been a hospice nurse for two to three years, and 33% had been a hospice nurse for three years or more. Ages of survey respondents ranged from 26 to 59. Nine respondents had an education level of an Associate's degree, two possessed a Bachelor's degree, and one was Master's degree prepared.

Hospice nurse self-efficacy results. To determine if there was a difference in nurse rated self-efficacy, the response percentages for the Likert scale utilized by the PCSES were compared pre- and post-SMP implementation. There was a slight improvement in nurses reporting confidence to independently answer patient's questions about the dying process and supporting the patient or family member when they become upset post-SMP implementation, with a 11.67% increase in percentage (58.33% versus 70%). There was a 20% increase in nurse self-efficacy in reference to informing people of the support services available post-SMP implementation. One nurse felt confident to

discuss patient's wishes after death with close supervision pre-SMP implementation, with all survey respondents identifying feeling either confident to perform with minimal consultation or independently post-SMP implementation. There was a 5% increase in nurses rating self-efficacy to react to reports of pain, terminal delirium, dyspnea, and nausea/vomiting. One nurse identified the need for further basic instruction when reacting to terminal delirium and dyspnea pre-SMP implementation, with all nurses rating self-efficacy as confident to perform with minimal consultation or independently post-implementation. There was a 13% increase in nurses reporting confidence to independently react to constipation post-SMP implementation (66.67% versus 80%). There was also a 8% increase in nurses reporting confidence to independently react to limited patient decision making capacity post-SMP implementation (41.67% versus 50%).

Discussion

These results reveal that the organization has a greater number of hospice nurses with two or less years' experience, therefore meeting the novice hospice nurse criteria identified for the project. Results for each question reveal a small increase in nurse symptom management self-efficacy. Therefore, SMP implementation did demonstrate an increase in nurse self-efficacy related to symptom management as hypothesized during project development. Most of the survey participants reported confidence performing symptom management interventions either with minimal consultation or independently both pre- and post-SMP implementation, with all survey respondents choosing these two

categories post-SMP implementation. As all nurses employed by CRH were surveyed, results reflect the self-efficacy of all nurses, including the novice nurses. However, 66% of pre-implementation and 50% of post-implementation respondents were novice hospice nurses. Therefore, the survey results do reflect the symptom management confidence levels of novice hospice nurses.

The chart audit data revealed an increase post-SMP implementation for each element of the symptom management documentation. Results revealed an initial increase in symptom management interventions and nurse documentation of interventions; however, there was a decline in symptom management interventions during the last month of the post-SMP implementation phase. This finding suggests the need for additional educational interventions with clinical staff to ensure the protocol is followed. Completion of the PAINAD scale for patients who were unable to verbalize a pain rating was poor throughout both phases of the project, implying the need for further staff education.

Recommendations

Based on the project findings, the economic considerations, implications for practice, and outcome recommendations are outlined below.

Economic Considerations

Development and implementation of a detailed SMP will financially assist hospice organizations. Organization administrators such as the Clinical Educator, Quality Improvement Manager, and Director of Nursing are responsible for creating

protocols that improve patient end-of-life outcomes while providing clear expectations for clinical staff. No additional financial staffing cost will result from the creation, education, implementation, monitoring, and enforcement of the protocol as the job descriptions for these individuals currently contains this expectation. These job roles collaborate to provide the necessary education and support to the clinical staff.

In addition, the SMP will ensure the hospice organization receives the maximum insurance reimbursement rate, as symptom management for the first three days following admission and the last three days of life are reported elements to the Centers for Medicare and Medicaid. Failure to provide symptom management interventions may result in reduced insurance reimbursement rates, negatively impacting the organization's financial system. Finally, providing clear symptom management expectations for clinical staff, as well as aiding staff to determine proper interventions, will increase nurse confidence and assist with improving staff retention rates. Increased staff retention rates will decrease the costs associated with hiring and training new clinical staff.

Implications for Practice

Exacerbated symptoms experienced at the end of life are inadequately managed (Friedrichsdorf et al., 2015). This project aimed to ultimately improve symptom management through implementation of an SMP and an educational intervention, subsequently aspiring to increase nurses' self-efficacy. Hospice organizations are tasked with adequately managing patients' symptoms (NHPCO, 2010). Documentation of interventions performed to treat the symptom, the patient's response to the intervention,

and teaching provided to the patient and family, are mandated by insurance companies for organizations to receive financial reimbursement. Reimbursement may be denied if inadequate symptom management is identified, resulting in financial hardship for the organization, as well as the potential to lose accreditation. Also, adequate symptom management in the home or hospice inpatient center has the ability to reduce medical costs by preventing hospitalizations.

Furthermore, while it was hypothesized education and a protocol outlining symptom management expectations would increase nurses' self-efficacy, the project results reveal no significant increase in self-efficacy was reported by nurses post-SMP implementation. Despite these project findings, nurses who feel confident in treating symptoms may be proactive with necessary interventions and produce documentation reflective of the care provided, resulting in improved patient outcomes. In addition, improved self-efficacy of nurses has the potential to increase nurse retention rates within the organization and decrease the costs of care as nurses proactively implement evidenced based care to manage exacerbated patient symptoms. In addition, adequate symptom management should increase patients' quality of life. Family members may also report higher satisfaction with hospice services, perhaps encouraging community members to seek hospice services at the end of life.

Implementation of this project assisted with filling the gap in literature related to SMP. While this project is not a randomized controlled trial, results may strengthen the evidence related to SMPs. Also, the SMP is clearly outlined, lending itself for easier

replication, as components of similar protocols are absent in the literature. Publishing the project in a peer-reviewed journal will allow for the dissemination of information to similar clinical settings.

Process and Outcome Recommendations

Sustainability of the project was ensured by the adoption of the SMP by the organization. All clinical staff was educated regarding the SMP and, following current organization protocol, random chart audits by the Quality Improvement Manager after the completion of the project to confirm the SMP is adhered to. The education plan was outlined and adopted by the Nurse Educator for use with all future nurse hires. In addition, a cost-benefit analysis was conducted demonstrating the development, implementation, and evaluation phases, resulting in no additional cost to the organization due to the pre-existing job duties of the Nurse Educator and Quality Improvement Manager (See Appendix M). Also, monthly reiteration of the SMP by administrative staff is needed to reinforce adherence to the protocol.

To determine any significant improvement in confidence levels of novice nurse symptom management, additional studies with larger nurse and patient sample sizes will need to occur. The run charts indicate many of the symptom management interventions were beginning to decline in the third month post-implementation (Table 1). Extending the post-implementation chart audit time may indicate if additional educational interventions need to be implemented or the SMP needs to be strengthened. A follow-up study will further strengthen the evidence supporting SMP implementation and the

subsequent effects on novice nurse self-efficacy. The addition of a quantitative survey for nurses to determine thoughts associated with the SMP would also assist with ensuring the SMP functions as anticipated.

Plans for Dissemination

The project findings will be disseminated to healthcare professionals through published journals and presentations. The results of the project will be shared with all Compass Regional Hospice employees through a monthly staff meeting to assist the organization in symptom management intervention. A presentation during a spring 2018 meeting with the Hospice and Palliative Care Network of Maryland will occur to share the information with hospice organizations throughout the state. In addition, an abstract will be submitted to present at the National Hospice and Palliative Care Network conference in the fall of 2018. Manuscripts will be submitted to the American Journal of Nursing and the Journal for Healthcare Quality to disseminate the project findings to a larger audience.

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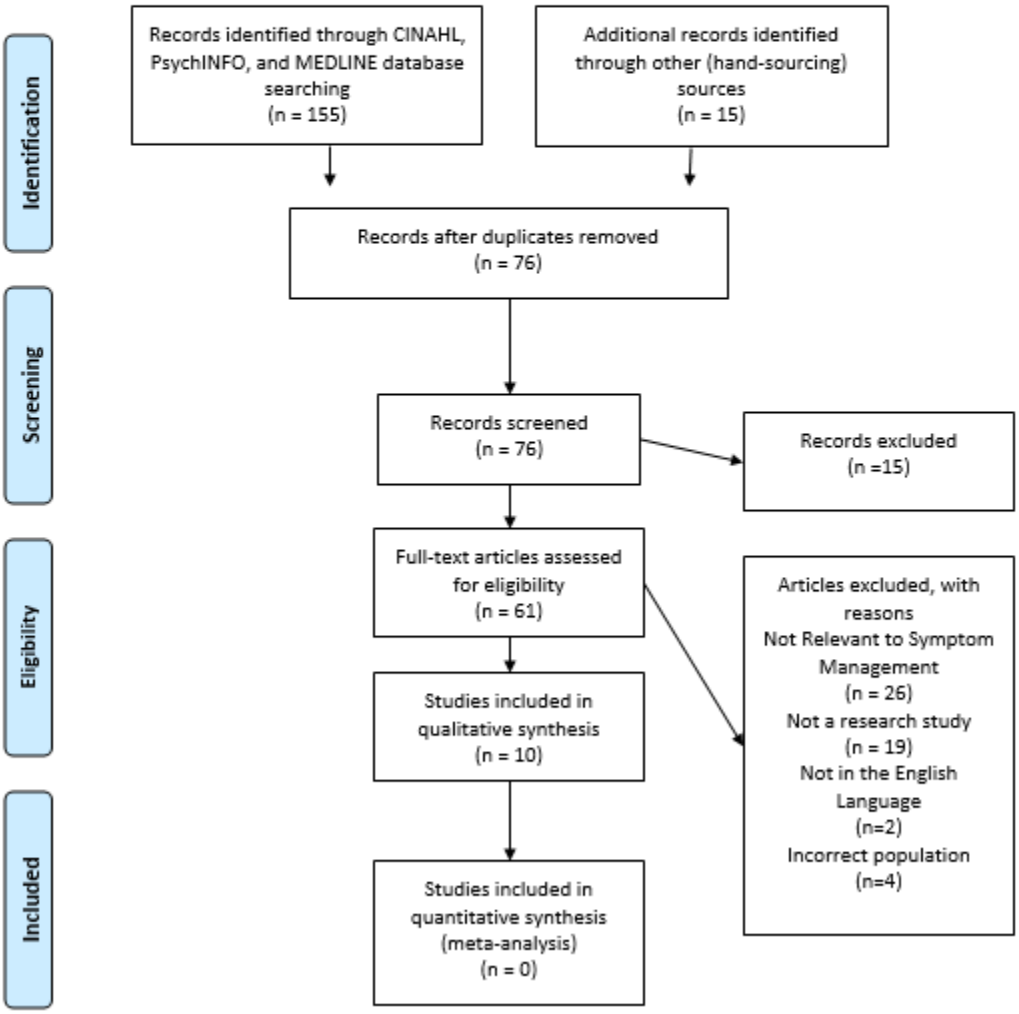
Appendix A

PRISMA 2009 Flow Diagram: Does hospice and palliative care nurse's patient symptom management documentation improve and hospice nurses rate their level of self-efficacy higher after the utilization of new SMP and related educational training than those who use the current SMP at three months' post-implementation?



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Appendix B

Literature Summary Table

Year	Author, Title, Journal	Purpose	Design	Sample	Result	Strength and Quality of Evidence (JHN EBP Rating)
2015	Friedrichsdorf, Postier, Dreyfus, Osenga, Sencer, and Wolfe. Improved quality of life at end of life related to home-based palliative care in children with cancer. *Journal of Palliative Medicine*.	Compare the quality of life and symptom distress of children who received end-of-life care from a PPC home care program with those who died without the assistance of a PPC program.	Retrospective Study	60 patients	More children experienced constipation in the PPC cohort (n=21, 70%) than those in the oncology cohort (n=10, 36%) p=0.01. Children in the PPC cohort suffered "a great deal" from energy loss/fatigue (93%) than the oncology group (67%) p=0.78.	Strength: Level III Quality: Low
2011	Steindal, Bredal, Sorbye, and Lerdal. Pain control at the end of life: a comparative study of hospitalized	Determine if differences exist between healthcare workers'	Retrospective Cross-Sectional Comparative Study	220 patients	Identifies the need to thorough pain assessment and documentation of findings. Many different types of analgesics were	Strength: Level III Quality: Low

	cancer and noncancer patients. *Scandinavian Journal of Caring Sciences.*	documentation of pain in cancer and noncancer patients.			given deeming it necessary to allow a variety of medication to be used based upon patient need.	
2008	Walling, Brown-Saltzman, Barry, Quan, and Wenger. Assessment of implementation of an order protocol for end-of-life symptom management. *Journal of Palliative Medicine.*	Evaluate the implementation of an inpatient ESMO.	Survey	89 physicians 91 nurses	87% of all clinicians felt the ESMO was valuable. Training is needed for clinicians to feel confident to implement. Clinicians still reported difficulty determining when medication dosages need to be increased ESMO are frequently implemented too late.	Strength: Level III Quality: Low
2011	Walling, Ettner, Barry, Yamamoto, and Wenger. Missed opportunities: use of an end-of-life symptom management order protocol among inpatients dying expected deaths. *Journal of Palliative Medicine.*	Abstract data from the complete medical record to determine if the ESMO protocol was utilized and if the medical staff adhered to protocol.	Retrospective Study	496 patients	Younger patients were less likely to have ESMO protocols implemented (95% CI 1.00-1.04). Patient's without insurance were 75% less likely to be placed on ESMO protocol. Patient's admitted from a nursing home were 43% less likely to be placed on ESMO protocol. ESMO	Strength: Level III Quality: Good

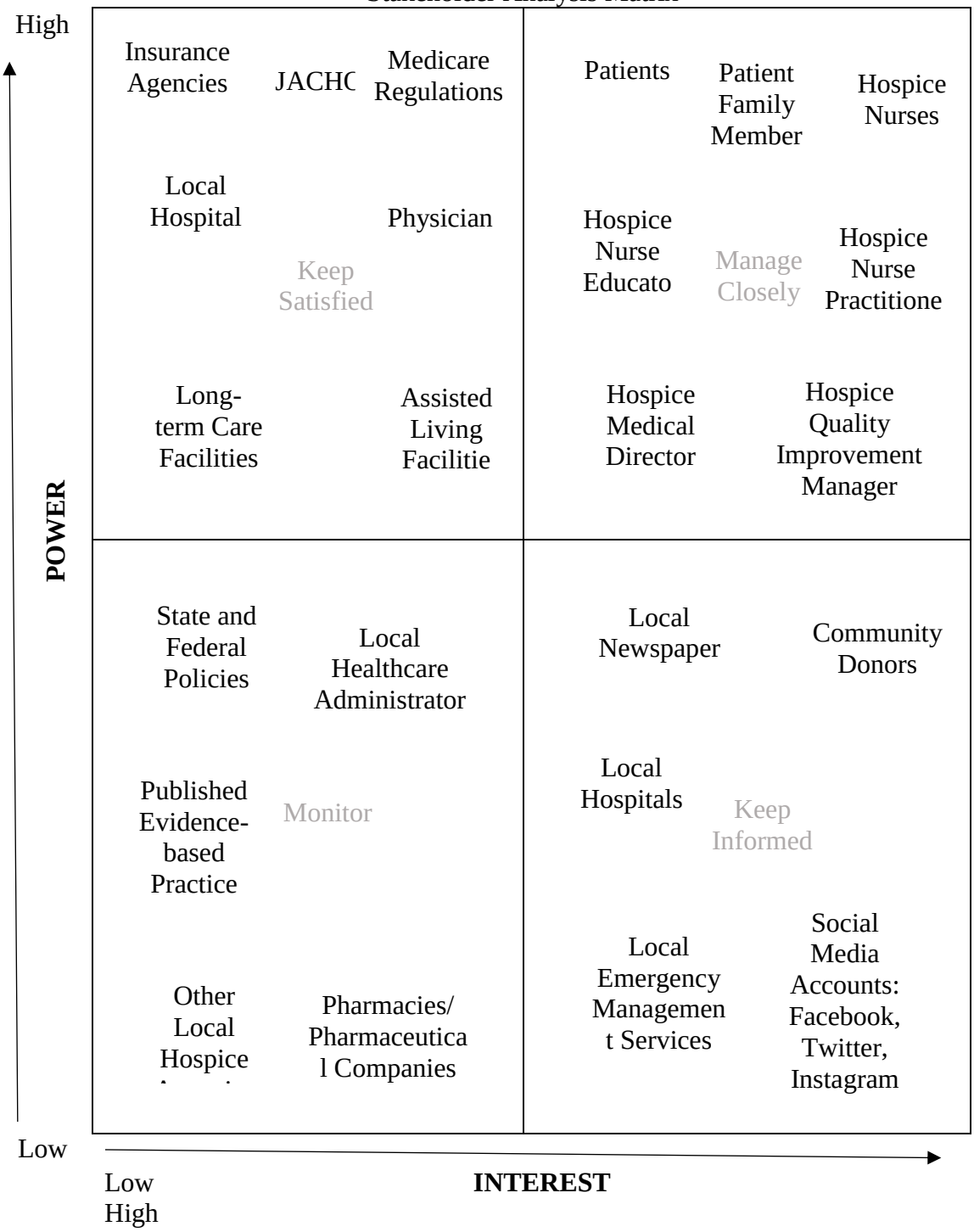
					protocol were often implemented too late.	
2011	White and Coyne. Nurses' perceptions of educational gaps in delivering end-of-life care. *Oncology Nursing Forum.*	Assess end-of-life core competencies and educational needs of oncology nurses via survey.	Cross-Sectional Study	714 nurses	25% of respondents felt they were not adequately prepared to care for dying patients indicating a need for continued education of symptom management and hospice/palliative care philosophy. Core Competencies identified by the *Clinical Practice Guidelines for Quality Palliative Care* may be utilized to guide educational needs of hospice/palliative care nurses.	Strength: Level III Quality: Good
2011	Woo, R., Cheng, Wong, and Mak. Quality of end-of-life care for non-cancer patients in a non-acute hospital. *Journal of Clinical Nursing.*	Survey non-cancer patients reaching end of life to obtain information related to quality of life.	Survey	80 patients	Clinical pathways are needed to treat patient symptoms at end of life. Awareness of common symptoms should serve as the basis for the formulation of care protocols to ensure proper management and documentation.	Strength: Level III Quality: Low

2011	Dalacorte, Rigo, and Dalacorte. Pain management in the elderly at the end of life. *North American Journal of Medical Sciences.*	Identify pharmacologic and non-pharmacologic approaches to pain management of the elderly as they approach end of life.	Literature Review	30 articles	Multiple medications may need to be used to treat pain. For effective treatment, incorporate the World Health Organization's Analgesic Ladder. The incorporation of non-pharmacologic therapies increases pain control.	Strength: Level V Quality: Low
2011	Phillips, Halcomb, and Davidson. End-of-life care pathways in acute and hospice care: an integrative review. *Journal of Pain and Symptom Management.*	Identify the effects of end of life care pathways on hospice and palliative care patients.	Literature Review	26 articles	Identified the lack of randomized controlled studies performed to evaluate end-of-life pathways. Identified three major predictors of success for pathways: health professionals having the clinical skills to initiate and follow pathway, strong clinical leadership, establishment of a pathway facilitator.	Strength: Level IV Quality: High
2013	Watts. End-of-life care pathways and nursing: a literature	Identify how care pathways can be utilized to guide clinical decision-	Literature Review	48 articles	Use of QI best facilitate EOLC pathway implementation. Sustainable EOLC	Strength: Level V Quality:

	review. *Journal of Nursing Management.*	making while caring for patients reaching the end-of-life.			pathways require health professionals to have a sense of inclusion and understanding of the purpose of the pathway. Positive impact found on nurse confidence levels when nurses have EOLC pathways to follow. EOLC pathways make documentation easy using tick boxes, signatures and documenting by exception.	High
2012	Wilkie and Ezenwa. Pain and symptom management in palliative care and at end of life. *Nursing Outlook.*	Provide an update on pain and symptom management in palliative care and at end of life since 2004.	Literature Review	Not identified	Three Main Themes: 1) Pain and symptom management are often inadequate. 2) Patients with cancer pain and symptoms drive the use of palliative care services. 3) Hospice programs provide emergency drug kits for management of symptoms with only 50% of patients using the medications.	Strength: Level V Quality: High

Note. EOCL – End-of-Life Care JHN – John Hopkin Nursing EBP – Evidence-based Practice CI – Confidence Interval
PPC – pediatric palliative care ESMO – End-of-life Symptom Management Order QI – Quality Improvement

Appendix C
Stakeholder Analysis Matrix



Appendix D

Gap Analysis

Future State	**Current State**	**Action Step(s)**
Improving the self-efficacy of nurse's results in nurses developing the confidence to implement evidence-based symptom management interventions.	• Majority of nurses employed have less than two years' hospice experience resulting in lower self-efficacy related to symptom management. • Hospice is a highly autonomous setting, as nurses are the frontline staff evaluating patients. Inaccurate assessments or lack of understanding related to symptom management leads to inadequate symptom control.	• Survey all nurses using a valid and reliable tool to measure self-efficacy pre- and post-project implementation. • Reviewed current symptom management education provided to nurses. • Provide mandatory education related to evidence-based symptom management interventions by collaborating with Nurse Educator to create an education plan.
All nurses will follow a Symptom Management Protocol which clearly outlines assessment, intervention, and documentation requirements.	• Current symptom management protocol is vague and gives minimal guidance for symptom management practice and documentation. • Chart audits performed by the Quality Improvement Manager reveals nurses are documenting symptom	• Audit patient charts to gather pre-implementation data supporting the need for the project. • Incorporated the evidence found in the literature to develop a Symptom Management Protocol in collaboration with the Quality Improvement Team. • Developed a symptom management teaching plan in

Future State	Current State	Action Step(s)
	management interventions in various locations within the chart, if at all.	collaboration with the Nurse Educator that is easily replicated.

Gap Analysis conducted 1/30/17 – 4/7/17 via informal interviews with full-time nurses, Quality Improvement Manager, Nurse Educator, Director of Nursing, Executive Director, and the organization's one nurse practitioner.

Appendix E

Project Timeline

Project Phase	**Month/Year**	**Activity**
Pre-implementation	February-April 2017	Complete 200 NURS 694 Practicum Hours to prove project needs and gather pre-implementation data/organization analysis Perform Needs Assessment, Gap Analysis, Stakeholder Analysis, and Cost-Benefit Analysis.
	February 2017	Permission obtained from author of Palliative Care Self-Efficacy Scale for project use
	March 2017	Symptom Management Protocol approved by Compass Regional Hospice Formalize project methodology Fully develop Symptom Management Protocol education session
	April 2017	Presented completed project proposal to Chair and Committee Member and received approval Completed Salisbury University's IRB paperwork and submitted for approval
	May 2017	Obtained IRB approval from Salisbury University
Implementation	June 2017	Project lead educated administration staff regarding Symptom Management Protocol Teaching Outline Created online learning module to nurses via CRH email
	June 19, 2017	Emailed nursing staff the SMP Blackboard link to the online learning module for completion Emailed Self-Efficacy Survey to all direct patient care nurses for completion
	June 26, 2017	Emailed nursing staff the reminder email one week is left to complete the Self-Efficacy Survey

Project Phase	Month/Year	Activity
	June 29, 2017	Emailed nursing staff there is one week remaining to complete the Blackboard SMP online learning module
		Emailed nursing staff there is one day left to complete the Self-Efficacy Survey
		Emailed nursing staff there is on day left to complete the Blackboard SMP online learning module
	July 3, 2017	Implemented Symptom Management Protocol
	August-October 2017	Performed retrospective chart audits to gather pre- and post-implementation data
Post-implementation	October 16, 2017	Re-surveyed Self-Efficacy of all nurses using Palliative Care Self Efficacy Scale
	January 2017	Compared pre- and post-implementation self-efficacy data percentages
		Created Run Charts to identify potential changes in symptom management revealed by chart audits
	February-March 2018	Formalized results and completed evaluation phase of project
	March 26, 2018	Submit final transcript
	April 17, 2018	Present final DNP Project to Chair and Committee Member

Appendix F

SWOT Analysis

SWOT Element	Assessment	Intervention/Leverage
Strengths (internal)	• High level administration support of project goals • Evidence shows current symptom management protocol not effective for documentation and management of symptoms • Effective data collection method for chart audits regarding symptom management • Engaged stakeholders, internal experts want to address the issue	• Keep administration well informed on project progress • Collect data and report findings to demonstrate trends and correlation with symptom management documentation and nurse self-efficacy • Identify key stakeholders and engage staff in project development
Weakness (internal)	• Would require practice change for nursing staff • Novice hospice nurses comprising majority of clinical staff • No internal advanced practice clinicians or physicians • Updated educational intervention regarding documentation expectation • Electronic Medical Record slated for update in October 2017 which may impact documentation	• Provide support to nursing staff via education and engagement of staff in project development • Collaborate with Nurse Educator to provide additional support to novice hospice nurses • Include Nurse Educator in the education planning phase • Collaborate with organization's SunCoast Support person to receive updates that may affect documentation
Opportunities (external)	• Ability to meet insurance and Joint Commission symptom management standards	• Collaborate with administration to ensure protocol complies with regulatory mandates

SWOT Element	Assessment	Intervention/Leverage
	• Receive full reimbursement rates from payors • Increase patient quality of life at end of life • Increase family satisfaction with hospice services	• Reinforce with staff the necessity of documenting symptom management interventions to receive full reimbursement rates • Incorporate evidence-based practice into policy and protocol development with the engagement of hospice staff
Threats (external)	• Changing healthcare political climate potentially resulting in shift of hospice coverage • Frequently changing mandates from federal and state regulating bodies	• Seek involvement in state and federal policy initiatives to advocate for quality end of life care • Enroll to receive emails from the National Hospice and Palliative Organization to stay apprised of changing mandates

Appendix G

Nurse Documentation of Symptom Management Data Collection Tool

	Assign a number based on order of audit and place the number below on data collection tool. For each chart audit category, indicate Yes, No, or Not Applicable (NA) when performing the chart audit.	
	Patient Identification #	
Assessment	Assessment of symptoms completed at least weekly during skilled nursing visits and PRN: dyspnea, nausea/vomiting, constipation, pain, anxiety, and agitation	Yes No N/A
	A Focused and Comprehensive Visit is documented once daily on patients receiving general inpatient level of care.	Yes No N/A
	An Inpatient Flowsheet is documented once daily (both forms should be completed on opposite shifts) on patients receiving general inpatient level of care.	Yes No N/A
	If pain is present, a comprehensive assessment is documented in the electronic medical record.	Yes No N/A
	A numeric pain scale is utilized for patients who can verbalize pain or PAINAD is documented if unable to communicate pain.	Yes No N/A
	The rating scales (i.e. mild [1-3/10], moderate [4-6/10], or severe [7-10/10]) are documented for patients reporting constipation, dyspnea, anxiety, agitation, and nausea/vomiting.	Yes No N/A
	If a symptom is observed by the nurse and is unable to be rated by the patient, the nurse documents the symptom and include the reason the patient is unable to rate symptom and the severity of symptom in the clinical narrative.	Yes No N/A
Follow-up	Patients with a mild symptom rating have a telephone call documented daily until the symptom is resolved with a visit occurring if the telephone call reveals findings necessary for a nurse follow-up.	Yes No N/A
	The Interdisciplinary Team (IDT) and/or nursing administration is notified to determine an appropriate follow-up visit for patients with a chronic moderate/severe symptom rating or a predisposing condition.	Yes No N/A
Documentation	Written comments are documented for interventions performed to manage symptoms, outlining the intervention (pharmacologic and non-pharmacologic), the patient's response to the intervention, and teaching performed.	Yes No N/A
	Write symptom(s) missing documentation in next column.	

Appendix H

Compass Regional Hospice
Serving Queen Anne's, Kent & Caroline Counties

Clinical Protocol

Title: Symptom Management Protocol

Purpose: To provide criteria for the standard assessment and tailored management of patient symptoms.

Assessment: A comprehensive assessment of all patient symptoms is integral for quality symptom management. Assessment should include:

1. Assess symptoms, specifically including dyspnea, nausea/vomiting, constipation, pain, anxiety, and agitation weekly during skilled nursing visits and PRN.
2. Patients receiving general inpatient (GIP) level of care will have a Focused and Comprehensive Visit documented once daily and an Inpatient Flowsheet documented once daily (both forms should be completed on opposite shifts).
3. If pain is present a comprehensive assessment must be documented in the electronic medical record. The numeric pain scale should be utilized for patients who can verbalize pain. PAINAD must be documented if unable to communicate pain.
4. Patients reporting constipation, dyspnea, anxiety, agitation, and nausea/vomiting must be documented with the rating reported by the patient (i.e. mild [1-3/10], moderate [4-6/10], or severe [7-10/10]).
5. If a symptom is observed by the nurse and is unable to be rated by the patient, the nurse should document the symptom and include the reason the patient is unable to rate symptom and the severity of symptom in the clinical narrative.

Intervention: Symptom management interventions should follow the algorithms outlined in the formulary, unless there is a contraindication. If additional symptom management interventions are needed, nurses should collaborate with the certifying clinician and/or organization's Pharm.D.

Follow-Up Visits:

1. Patients with a mild symptom rating should receive a telephone call daily until the symptom is resolved with a visit occurring if the telephone call reveals findings necessary for a nurse follow-up.

2. Patients with a moderate/severe symptom rating should receive a daily nursing visit until the symptom is resolved. *

*A discussion must occur in IDT and/or with nursing administration to determine an appropriate follow-up visit for patients with a chronic moderate/severe symptom rating or a predisposing condition.

Documentation: For all symptoms present, the intervention performed to manage the symptom must be written in the comment box associated with the symptom, outlining the intervention (pharmacologic and non-pharmacologic), the patient's response to the intervention, and teaching performed. For symptoms without a rating box, performed interventions must be written in the clinical narrative. Collaboration with all clinicians regarding symptom management must also be written in the clinical narrative.

Appendix I

Palliative Care Self-Efficacy Scale

To view the scale in Survey Monkey, click on the following link:

https://www.surveymonkey.com/r/38PWTDM

Consent Form

The purpose of this research project is to implement and evaluate the effects of a revised Symptom Management Protocol and related face-to- face educational intervention at Compass Regional Hospice to increase nurse self-efficacy, and subsequent improvement in documentation, and follow-up care.

This is a research project being conducted by Holly Hayman MS, RN, CHPN, a Doctorate of Nursing Practice Student at Salisbury University. You are invited to participate in this research project because you are a nurse employed by Compass Regional Hospice.

Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves filling out an online survey emailed to you that will take approximately 5 minutes pre and

post project implementation. Your responses will be confidential and we do not collect identifying information such as your name, email address or IP address. Your demographic data (age, years of experience, training, level of education) and survey results will be presented separately as summative data of all participants (percentages, ranges, averages). You will only be identified by a unique subject number code. Pre- and post-implementation survey results will be compared and presented with your unique identification number separate from demographic data.

The survey questions will be about self-efficacy (or confidence) at providing end-of-life care to patients.

We will do our best to keep your information confidential. All data is stored in a password protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only and may be shared with Salisbury University representatives. Study findings may also be published in nursing journals.

If you have any questions about the research study, please contact Holly Hayman at hh09845@gulls.salisbury.edu. If you have any adverse or concerns about the research, please contact Dr. Nancy Smith at nbsmith@salisbury.edu or the Office of Graduate Studies and Research at Salisbury University at 410-548-3549 or toll free 1-888-543-0148. This research has been reviewed according to Salisbury University IRB procedures for research involving human subjects.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

• you have ready the above information

• you voluntarily agree to participate

• you are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

○ Agree

○ Disagree

Unique ID Number:

Select your hospice or palliative care training? (Please select all that apply.)

- ○ Specialist Qualification
- ○ On the job training only
- ○ Short courses (2-5 days) or other formal training not leading to a specialist qualification
- ○ No training

*3. How many years have you been a registered nurse?

*4. How many years have you been a hospice nurse?

- 2 years or less
- 2 to 3 years
- 3 years or more

*5. What is your age?

*6. What is your level of nursing education?

- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Doctorate Degree

*7. Please rate your degree of confidence with the following patient/family interactions and patient management topics, by selecting the relevant box below.

	1 = Need further basic instruction	2 = Confident to perform with close supervision / coaching	3 = Confident to perform with minimal consultation	4 = Confident to perform independently
Answering patient's questions about the dying process	Answering patient's questions about the dying process 1 = Need further basic instruction	Answering patient's questions about the dying process 2 = Confident to perform with close supervision / coaching	Answering patient's questions about the dying process 3 = Confident to perform with minimal consultation	Answering patient's questions about the dying process 4 = Confident to perform independently
Supporting the patient or family member when they become upset	Supporting the patient or family member when they become upset 1 = Need further basic instruction	Supporting the patient or family member when they become upset 2 = Confident to perform with close supervision / coaching	Supporting the patient or family member when they become upset 3 = Confident to perform with minimal consultation	Supporting the patient or family member when they become upset 4 = Confident to perform independently
Informing people of the support services available	Informing people of the support services available 1 = Need further basic instruction	Informing people of the support services available 2 = Confident to perform with close supervision / coaching	Informing people of the support services available 3 = Confident to perform with minimal consultation	Informing people of the support services available 4 = Confident to perform independently
Discussing different environmental options (eg	Discussing different environmental options (eg hospital, home,	Discussing different environmental options (eg hospital, home,	Discussing different environmental options (eg hospital, home,	Discussing different environmental options (eg hospital, home,

	1 = Need further basic instruction	2 = Confident to perform with close supervision / coaching	3 = Confident to perform with minimal consultation	4 = Confident to perform independently
hospital, home, family)	family) 1 = Need further basic instruction	family) 2 = Confident to perform with close supervision / coaching	family) 3 = Confident to perform with minimal consultation	family) 4 = Confident to perform independently
Discussing patient's wishes for after their death	Discussing patient's wishes for after their death 1 = Need further basic instruction	Discussing patient's wishes for after their death 2 = Confident to perform with close supervision / coaching	Discussing patient's wishes for after their death 3 = Confident to perform with minimal consultation	Discussing patient's wishes for after their death 4 = Confident to perform independently
Answering queries about the effects of certain medications	Answering queries about the effects of certain medications 1 = Need further basic instruction	Answering queries about the effects of certain medications 2 = Confident to perform with close supervision / coaching	Answering queries about the effects of certain medications 3 = Confident to perform with minimal consultation	Answering queries about the effects of certain medications 4 = Confident to perform independently
Reacting to reports of pain from the patient	Reacting to reports of pain from the patient 1 = Need further basic instruction	Reacting to reports of pain from the patient 2 = Confident to perform with close supervision / coaching	Reacting to reports of pain from the patient 3 = Confident to perform with minimal consultation	Reacting to reports of pain from the patient 4 = Confident to perform independently
Reacting to and coping with terminal delirium	Reacting to and coping with terminal delirium 1 = Need further basic instruction	Reacting to and coping with terminal delirium 2 = Confident to perform with close supervision / coaching	Reacting to and coping with terminal delirium 3 = Confident to perform with minimal consultation	Reacting to and coping with terminal delirium 4 = Confident to perform independently

	1 = Need further basic instruction	2 = Confident to perform with close supervision / coaching	3 = Confident to perform with minimal consultation	4 = Confident to perform independently
Reacting to and coping with terminal dyspnea (breathlessness)	Reacting to and coping with terminal dyspnea (breathlessness) 1 = Need further basic instruction	Reacting to and coping with terminal dyspnea (breathlessness) 2 = Confident to perform with close supervision / coaching	Reacting to and coping with terminal dyspnea (breathlessness) 3 = Confident to perform with minimal consultation	Reacting to and coping with terminal dyspnea (breathlessness) 4 = Confident to perform independently
Reacting to and coping with nausea / vomiting	Reacting to and coping with nausea / vomiting 1 = Need further basic instruction	Reacting to and coping with nausea / vomiting 2 = Confident to perform with close supervision / coaching	Reacting to and coping with nausea / vomiting 3 = Confident to perform with minimal consultation	Reacting to and coping with nausea / vomiting 4 = Confident to perform independently
Reacting to and coping with reports of constipation	Reacting to and coping with reports of constipation 1 = Need further basic instruction	Reacting to and coping with reports of constipation 2 = Confident to perform with close supervision / coaching	Reacting to and coping with reports of constipation 3 = Confident to perform with minimal consultation	Reacting to and coping with reports of constipation 4 = Confident to perform independently
Reacting to and coping with limited patient decision-making capacity	Reacting to and coping with limited patient decision-making capacity 1 = Need further basic instruction	Reacting to and coping with limited patient decision-making capacity 2 = Confident to perform with close supervision / coaching	Reacting to and coping with limited patient decision-making capacity 3 = Confident to perform with minimal consultation	Reacting to and coping with limited patient decision-making capacity 4 = Confident to perform independently

Appendix J

Email Informing Participants of Palliative Care Nurse Self-Efficacy Scale

Initial Email Regarding Palliative Care Nurse Self-Efficacy Scale

Dear Compass Regional Hospice Nurse,

I am currently conducting a study to implement and evaluate the effects of a revised Symptom Management Protocol and related face-to- face educational intervention at Compass Regional Hospice to increase nurse self-efficacy, and subsequent improvement in documentation, and follow-up care. I am seeking the assistance of Compass Regional Hospice patient care nurses in completing the survey concerned with the self-efficacy (or confidence) related to patient symptom management. The survey is brief and should take about five minutes of your time to complete. Every effort will be made to keep the information provided confidential. Your name does not appear on the survey. Your demographic data (age, years of experience, training, level of education) and survey results will be presented separately as summative data of all participants (percentages, ranges, averages). You will only be identified by a unique subject number code. Pre and post implementation survey results will be compared and presented with your unique identification number separate from demographic data.

The survey will be available for completion over a two week period. Your cooperation and participation are strictly voluntary and your choice to participate or not to participate will in no way affect your employment.

Your participation is very valuable and will help me increase nurse-self efficacy related to symptom management at the end-of-life.

If you have any questions about this study or would be interested in the results, please contact Holly Hayman, MS, RN, CHPN at 443-786-4507 or hh09845@gulls.salisbury.edu.

Thank you for taking the time to complete the survey. If you have any adverse effects or concerns about the research, please contact Dr. Nancy Smith or the Office of Graduate Studies and Research at Salisbury University at 410-548-3549 or toll free 1-888-543-0148.

Email Reminder One Week Prior to Palliative Care Nurse Self-Efficacy Scale

Dear Compass Regional Hospice Nurse,

I am currently conducting a study to implement and evaluate the effects of a revised Symptom Management Protocol and related face-to- face educational intervention at Compass Regional Hospice to increase nurse self-efficacy, and subsequent improvement in documentation, and follow-up care. Last week you received an email informing you that I am seeking the assistance of Compass Regional Hospice patient care nurses in completing the survey concerned with the self-efficacy (or confidence) related to patient symptom management. The survey is brief and should take about five minutes of your time to complete. Every effort will be made to keep the information provided confidential. Your name does not appear on the survey. You will only be identified by your unique subject number code to compare your pre implementation survey results.

The survey will be available for completion for one more week. Your cooperation and participation are strictly voluntary and your choice to participate or not to participate will in no way affect your employment. Your participation is very valuable and will help me increase nurse-self efficacy related to symptom management at the end-of-life.
If you have any questions about this study or would be interested in the results, please contact Holly Hayman, MS, RN, CHPN at 443-786-4507 or hh09845@gulls.salisbury.edu.
Thank you for your cooperation.
If you have any adverse effects or concerns about the research, please contact Dr. Nancy Smith or the Office of Graduate Studies and Research at Salisbury University at 410-548-3549 or toll free 1-888-543-0148.

Email Reminder One Day Prior to the Close of the Palliative Care Nurse Self-Efficacy Scale

Dear Compass Regional Hospice Nurse,
I am currently conducting a study to implement and evaluate the effects of a revised Symptom Management Protocol and related face-to- face educational intervention at Compass Regional Hospice to increase nurse self-efficacy, and subsequent improvement in documentation, and follow-up care. Two weeks ago, you received an email informing you that I am seeking the assistance of Compass Regional Hospice patient care nurses in completing the survey concerned with the self-efficacy (or confidence) related to patient symptom management. The survey is brief and should take about five minutes of your time to complete. Every effort will be made to keep the information provided confidential. Your name does not appear on the survey. You will only be identified by your unique subject number code to compare your pre implementation survey results.
The survey will be available for completion for one final day. Your cooperation and participation are strictly voluntary and your choice to participate or not to participate will in no way affect your employment. Your participation is very valuable and will help me increase nurse-self efficacy related to symptom management at the end-of-life.
If you have any questions about this study or would be interested in the results, please contact Holly Hayman, MS, RN, CHPN at 443-786-4507 or hh09845@gulls.salisbury.edu.
Thank you for your cooperation.
If you have any adverse effects or concerns about the research, please contact Dr. Nancy Smith or the Office of Graduate Studies and Research at Salisbury University at 410-548-3549 or toll free 1-888-543-0148.

Appendix K

Permission to Use Palliative Care Self Efficacy Scale

Email Sent: February 22, 2017

Good Evening Dr. Phillips,
I am a Doctorate of Nursing Practice student at Salisbury University in the USA currently working on my dissertation entitled *Implementation of a Symptom Management Protocol and Educational Interventions to Improve Hospice and Palliative Care Novice Nurse Self-Efficacy.* The process I have outlined indicates the nurse's self-efficacy will be assessed before implementation and post-implementation of the symptom management protocol. May I have your permission to use the "Palliative Care Self-Efficacy Scale" you created when assessing the self-efficacy of the nurses?

Thank you for your consideration,
Holly Hayman, MS, RN, CHPN
Salisbury University DNP Student

Email Received: February 22, 2017

Dear Holly,

You are very welcome to use this survey tool. Good luck with your study – I will look forward to reading about your work.

Kind regards
Jane

Professor Jane Phillips RN PhD FACN
Director, Centre for Cardiovascular and Chronic Care
Faculty of Health | **University of Technology Sydney**
Level 3, 235 Jones St, Ultimo NSW 2007 (PO Box 123)
T +61 2 9514 4862 M +61(0) 411 100 617 **E** jane.phillips@uts.edu.au **W** health.uts.edu.au
Think. Change. Do

Appendix L

Symptom Management Protocol Teaching Outline

I. Objectives

a. Related to symptom Management:

- Identify the rationale for Symptom Management Protocol.
- Demonstrate comprehensive assessment components required per Symptom Management Protocol.
- Identify appropriate symptom management interventions.
- Demonstrate how to document symptom management interventions within the electronic medical record.
- Reacting to reports of pain from the patient, coping with terminal delirium, dyspnea (breathlessness), nausea/vomiting, constipation.

b. Objectives Related to Self-Efficacy:

- Answering patient's questions about the dying process.
- Supporting the patient or family member when they become upset.
- Informing people of the support services available.
- Discussing different environmental options (eg. hospital, home, family).
- Discussing patient's wishes for after their death.
- Answering queries about the effects of certain medications
- Reacting to limited patient decision-making capacity.

II. Materials Needed to Accomplish Objectives

Blackboard online learning module, Electronic-copy of Symptom Management Protocol, Computer, Medication Formulary

III. Persons responsible for Education

a. During the last two weeks in June 2017, all staff nurses will receive an email from the Nurse Educator containing the link to the Blackboard online learning module and an electronic copy of the Symptom Management Protocol. Rationale: Nurses will be able to schedule a time that accommodates their caseload and work schedules.
b. Staff will be encouraged to complete the electronic learning module during the regularly scheduled work day.
c. Future Trainings: The electronic learning module will be reviewed during the annual Health Fair. The Health Fair paperwork will include a line for the SMP training module. Nurses must initial next to the line indicating completion of the module.

IV. Activities

A. Verbal introduction explaining the rationale for the Symptom Management Protocol

B. Nurses will be given a hard-copy of the protocol. The protocol will be reviewed with each learner.
C. Video demonstration of chart documentation by the educator/instructor in Suncoast Training will occur as the Symptom Management Protocol is presented.
D. Pharmacologic symptom management interventions will be shown from the Medication Formulary in the online learning module.

V. Evaluation of the Learner

A. At the end of the training session, learners will be expected to complete a five-question quiz to evaluate knowledge of the Symptom Management Protocol. Completion of the quiz will be printed and placed in the nurses' CRH education folder.

Appendix M

Cost-Benefit Analysis

Project Component	**Cost**	**Benefit**
Chart Audits	$74,880 annual salary No additional cost - performed by Quality Improvement Manager per job description	Early identification of inadequate documentation allowing for education of staff
Increase in Nurse Self-Efficacy	$72,800 annual salary No additional cost - education provided by Nurse Educator per job description	Improving self-efficacy and implementing appropriate education to nurses may increase patient symptom management
Protocol Development	$74,880 annual salary No additional cost - collaborative effort of administrative staff on the Quality Improvement Team, a current job requirement	Protocol development will clearly outline the expectation of nurses

Appendix N

DNP Role Discussion

Following the American Associations Colleges of Nursing's *Essentials of Doctoral Education for Advanced Nursing Practice* (2006), this Doctorate of Nursing Practice (DNP) project addressed essentials one, two, three, and six. The first DNP essential, scientific underpinnings for practice, calls for nurses to integrate the biophysical nursing knowledge to deliver the highest level of nursing practice while also evaluating new practice approaches using theory (AACN, 2006). Hospice and palliative care nurses provide care to patients approaching the end-of-life while focusing on symptom management to promote a peaceful passing; however, novice hospice nurses often struggle when changing the focus of nursing care to transition from aggressive treatment to comfort care measures. To adequately manage symptoms, nurses must understand the biological processes that occur within the human body during the dying process. The development of the Symptom Management Protocol (SMP) addressed the most common symptoms experienced at end-of-life: anxiety, pain, dyspnea, nausea, constipation, and agitation, while providing written guidelines for how to manage the symptom. The use of Bandura's Self-Efficacy Theory assisted with the evaluation of the SMP in relation to symptom management self-efficacy reported by novice hospice nurses. The project created a clearly written SMP and an online learning module that educated the nurses regarding the new policy which addressed the behaviors Bandura identified in his theory as being necessary for high self-efficacy: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal

(Bandura, 1977). A model of Bandura's Self-Efficacy Theory was also created and utilized during project development to ensure each behavior was addressed (See Figure 1).

The second essential, Organizational and Systems Leadership for Quality Improvement and Systems Thinking, was met through the collaboration with Compass Regional Hospice's (CRH) clinical administrative staff, including Director of Clinical Services, Quality Improvement Manager, and Nurse Managers, to implement the SMP, which is a quality improvement initiative of the CRH organization (AACN, 2006). The SMP provided expectations regarding symptom management measures for all nurses with the intent to improve symptom management services provided to patients, thus improving the quality of care provided by the organization. During project development and implementation, the DNP project lead communicated with the clinical administrative staff, as well as the nurses within the organization to implement the policy. Also, the DNP project lead developed an online course, which included videos demonstrating the usage and expectations of the policy.

The third DNP essential, Clinical Scholarship and Analytical Methods for Evidence-Based Practice, was met through the critical appraisal of literature related to SMP implementation and methods to improve novice nurse self-efficacy (AACN, 2006). Additionally, the American Organization of Nurse Executives (AONE) has a similar core competency of knowledge of the healthcare environment and incorporation of evidence-based practice and outcome measurement (AONE, 2015). Databases were searched to find relevant articles. Articles were evaluated using the Johns Hopkins Nursing

Evidence-Based Practice Research Evidence Appraisal Tool. Based upon the appraisal tool, four were a level III strength with low quality, two were a level III with good quality, one was a level V with low quality, one was a level IV with high quality, and one was a level V with high quality. Themes revealed by the literature search demonstrated the importance of a clearly written SMP and implementation of educational methods to increase nurse self-efficacy. These themes were then embedded into the project through the creation of the SMP and an online learning module which provided consistent SMP education. To evaluate the effectiveness of the SMP, chart audits where performed three months pre- and three months post-SMP implementation using the patient's electronic medical record. Data was compiled and will be evaluated using run charts in the next phase of the project. Also, the Palliative Care Self-Efficacy Scale was distributed to nursing staff via CRH email to measure the self-efficacy of novice hospice nurses pre- and post-SMP implementation. Data from the survey was compiled and a dependent one-tailed t-test will be performed using SPSS in the next project phase. Evaluation of the data will then determine if the implementation of an SMP increased the self-efficacy of novice hospice nurses and if the SMP improved symptom management measures for enrolled hospice patients.

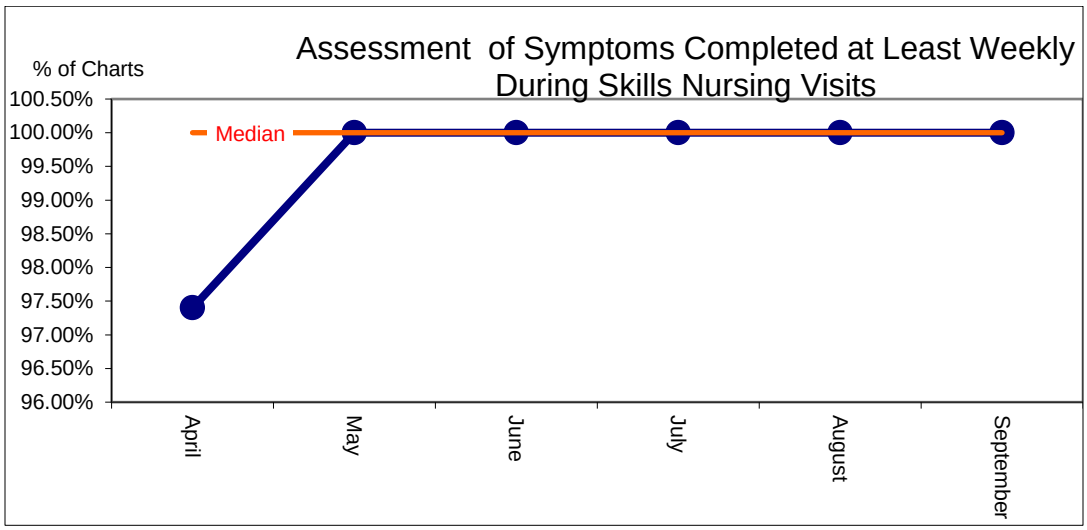
The final DNP essential met by the project is essential six, interprofessional collaboration for improving patient and population health outcomes (AACN, 2006). Development of the SMP was a collaborative effort by the DNP project lead, organization's Nurse Practitioner, Director of Clinical Services, Quality Improvement Manager, Clinical Educator, and Nurse Managers. Assessment from within the

organization revealed the lack of an SMP to guide nurses in symptom management. The SMP set a standard of practice regarding symptom management. Collaboration with the key team stakeholders mentioned resulted in implementation of the SMP following the proposed project timeline.

Table 1

Pre- and Post-SMP Chart Audit Results

Element 1:



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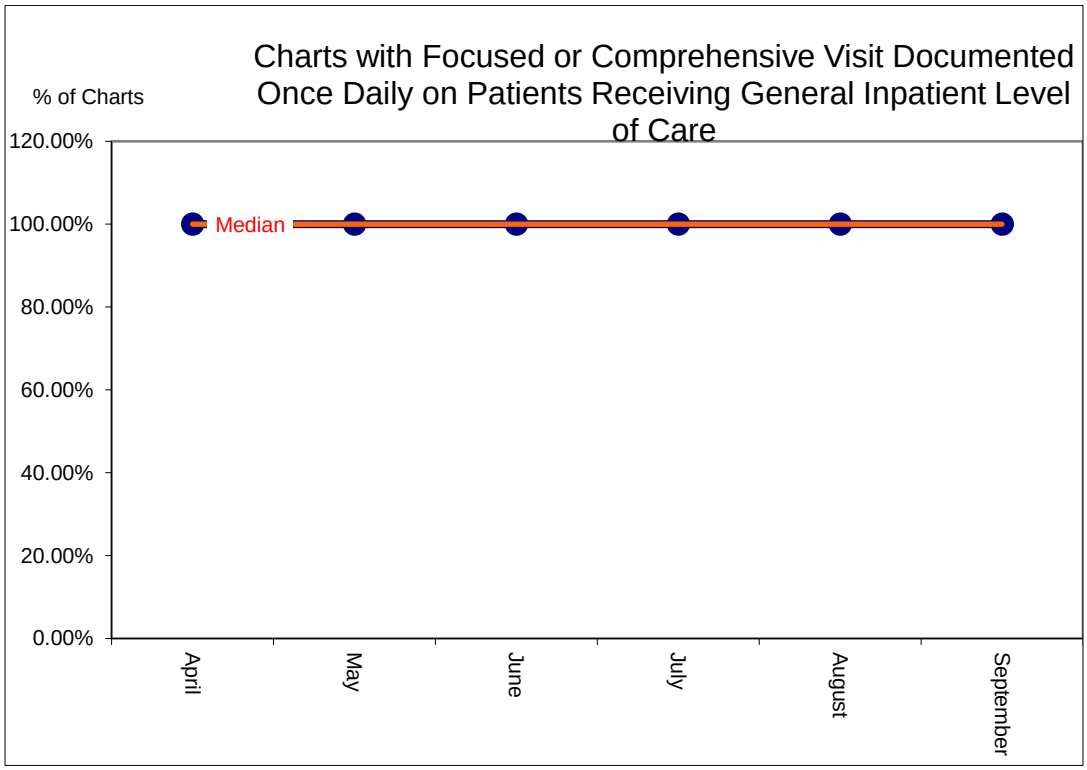

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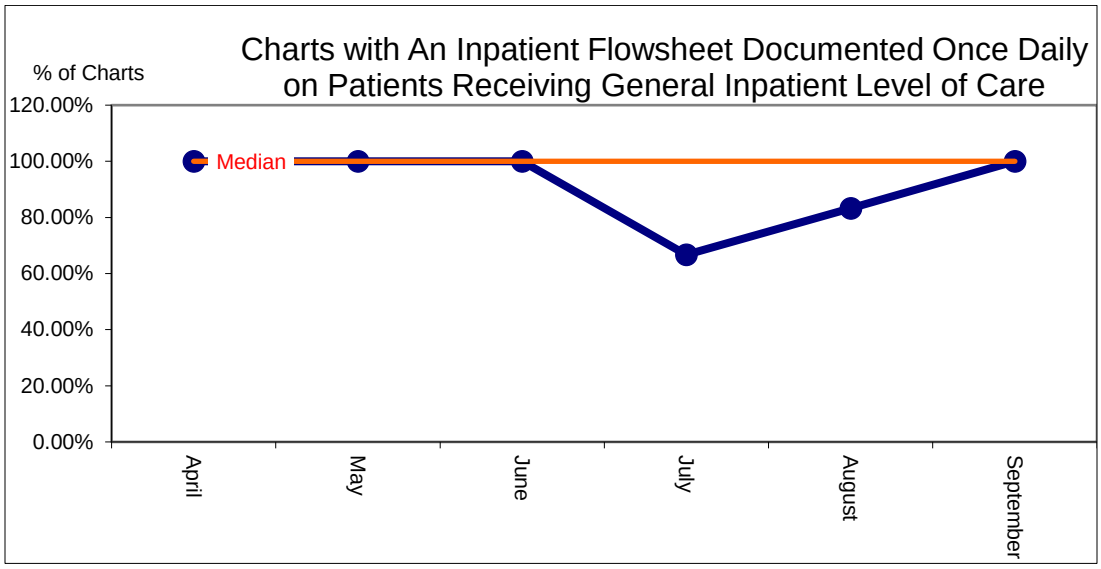

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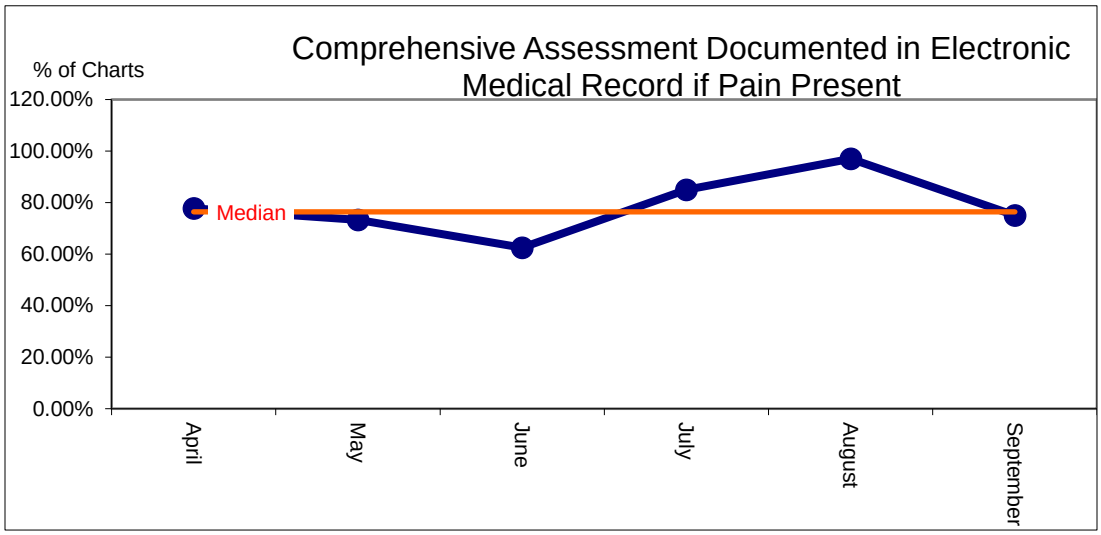

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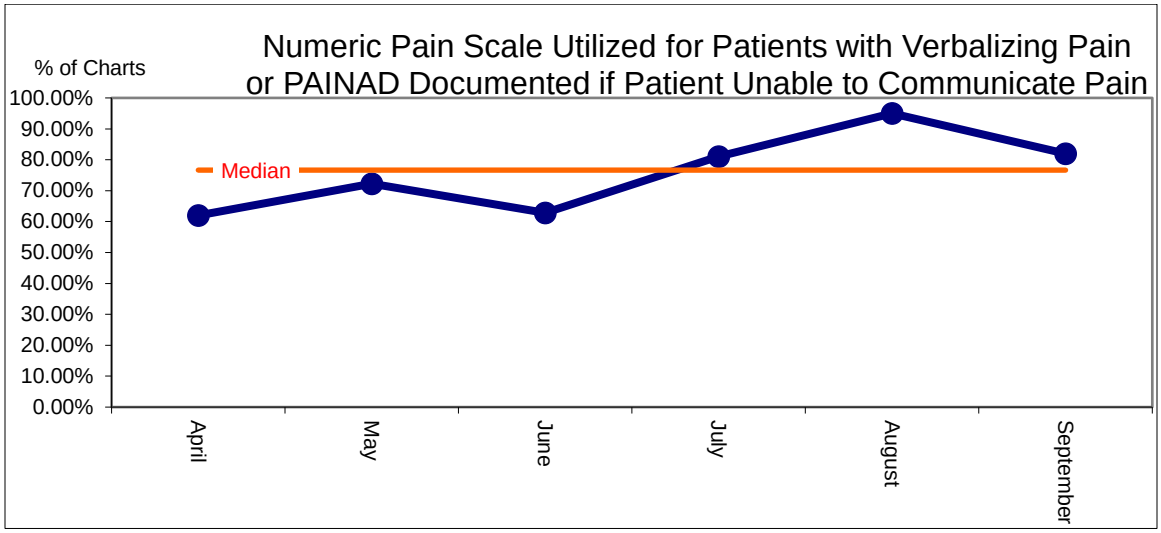

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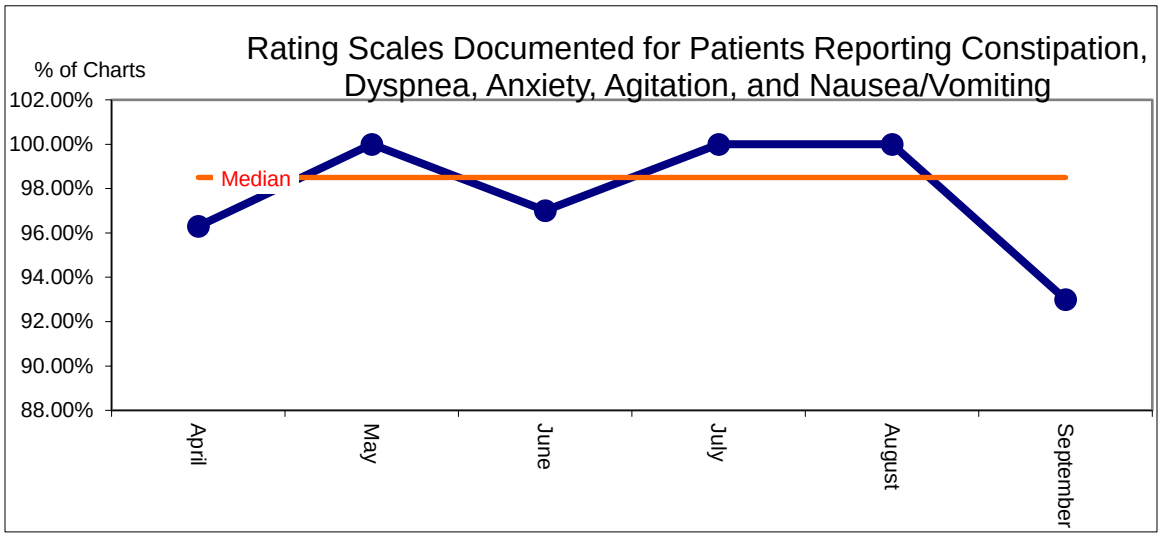
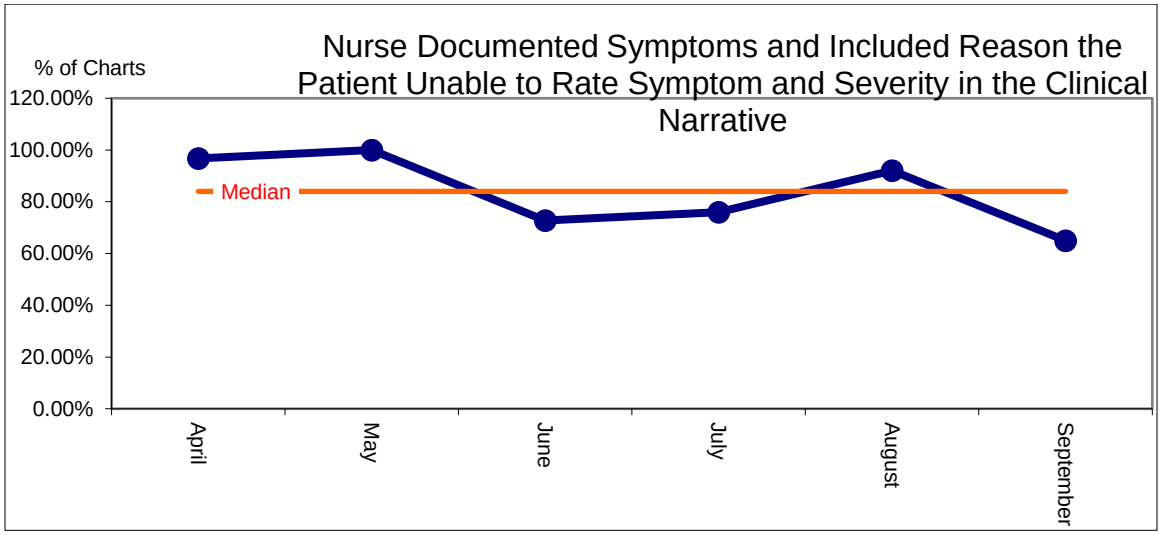
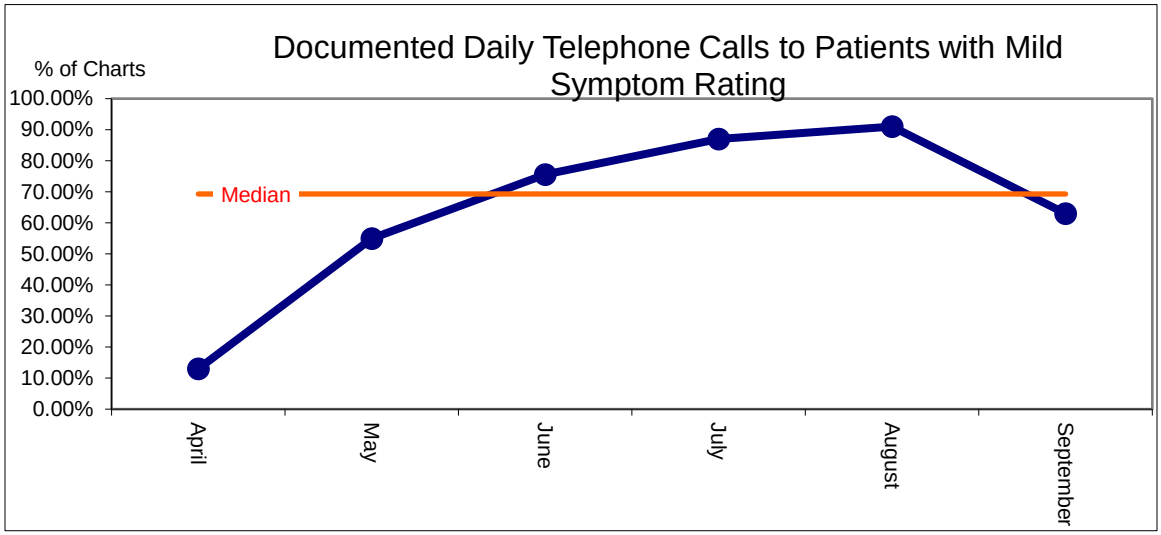


Element 7:



Element 8:



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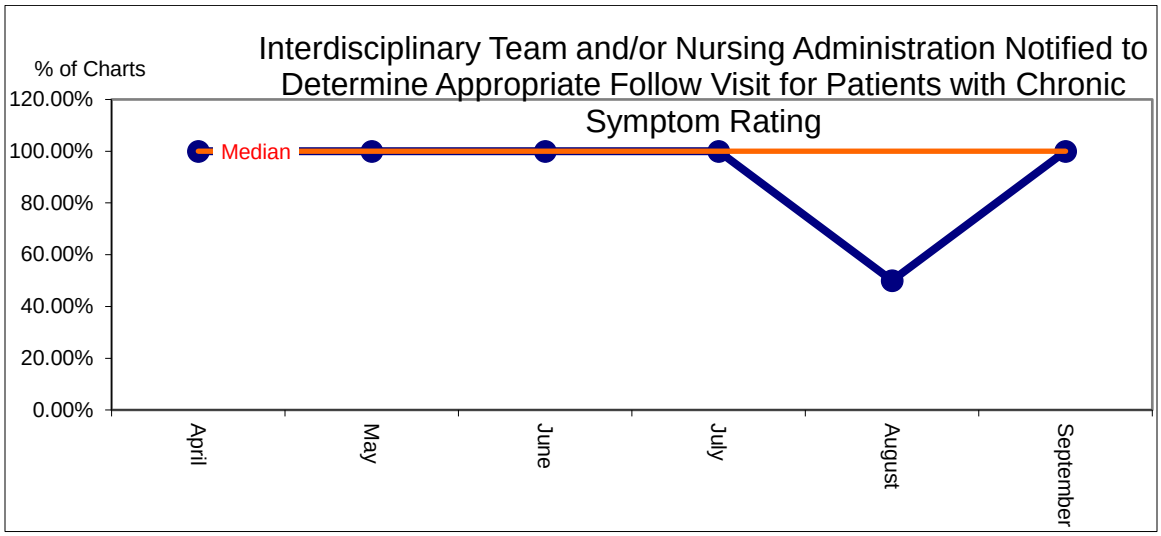

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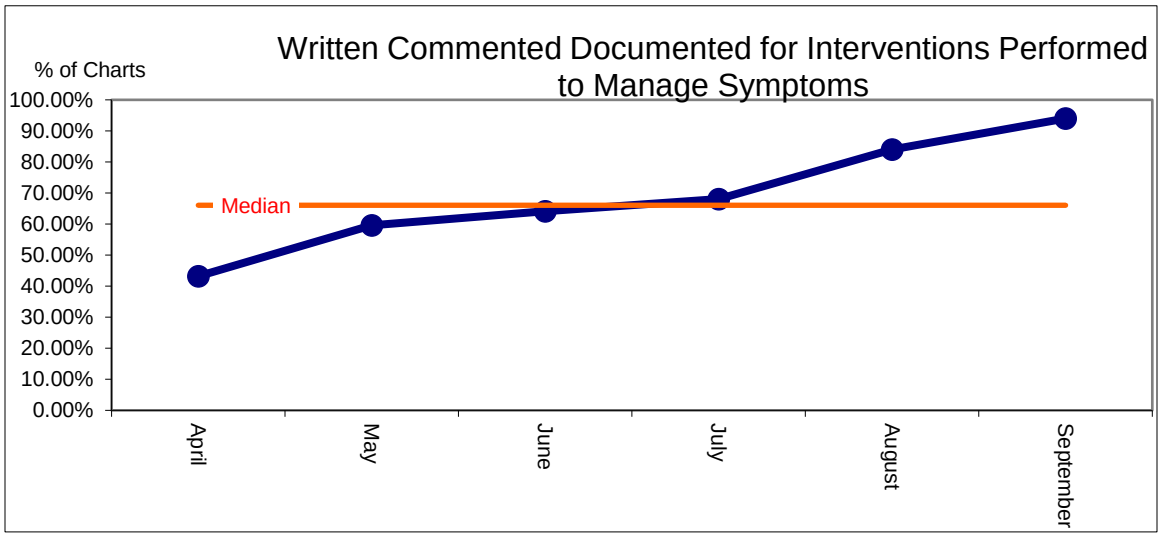
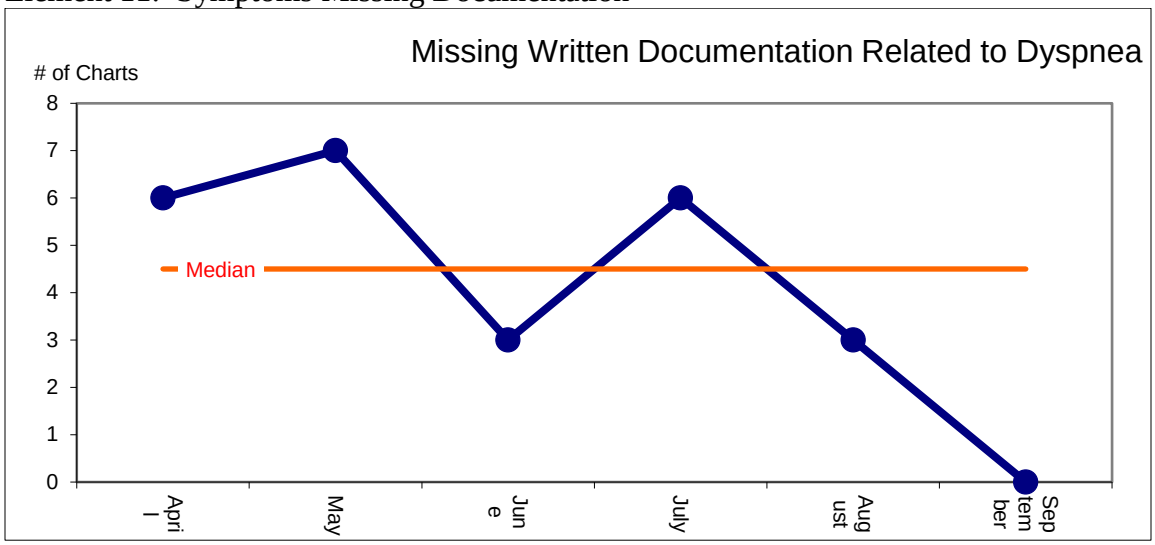


Element 11: Symptoms Missing Documentation



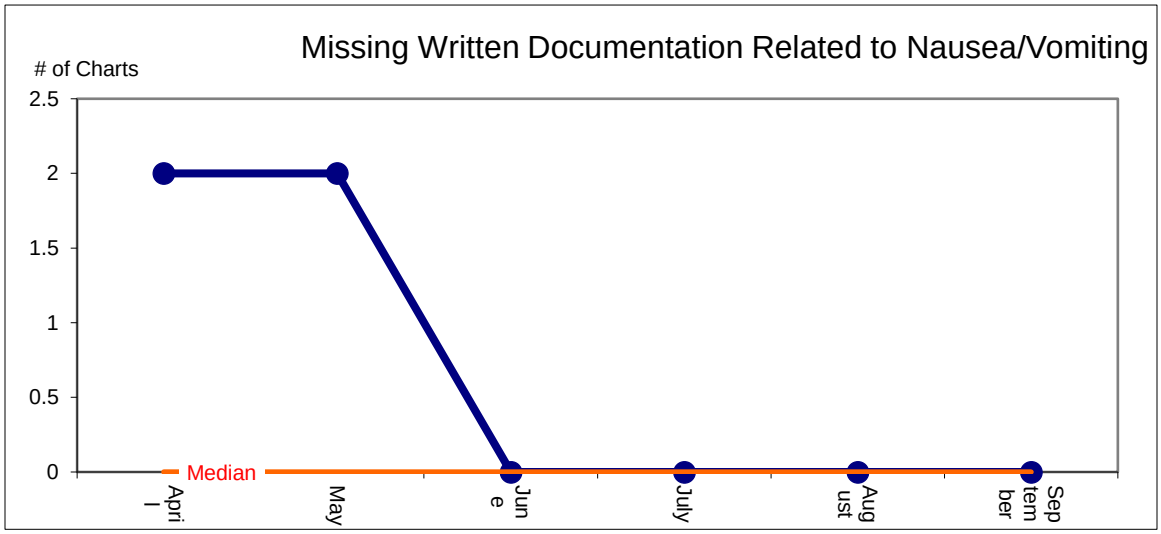


Table 2

Palliative Care Self-Efficacy Survey Results

Palliative-Care Self Efficacy Scale Question	Phase of Project	1 = Need Further Basic Instruction	2 = Confident to Perform with Close Supervision/ Coaching	3 = Confident to Perform with Minimal Consultation	4 = Confident to Perform Independently
Answering Patient's Question About the Dying Process	Pre-Implementation	0%	0%	33.33%	58.33%
	Post- Implementation	0%	2%	10%	70%
Supporting the patient or family member when they become upset	Pre-Implementation	0%	0%	41.67%	58.33%
	Post-Implementation	0%	0%	30%	70%
Informing people of the support services available	Pre-Implementation	8.33%	0%	41.67%	50%
	Post-Implementation	10%	0%	20%	70%
Discussing different environmental options	Pre-Implementation	8.33%	0%	41.67%	50%
	Post-Implementation	10%	0%	40%	50%
Discussing patient's wishes for after their death	Pre-Implementation	0%	16.67%	25%	58.33%
	Post-Implementation	0%	0%	50%	50%
Answering queries about the effects of certain medications	Pre-Implementation	0%	0%	58.33%	41.67%
	Post-Implementation	0%	0%	60%	40%
Reacting to reports of pain form the patient	Pre-Implementation	0%	0%	25%	75%
	Post-Implementation	0%	0%	20%	80%
Reacting to and coping with terminal delirium	Pre-Implementation	8.33%	0%	16.67%	75%
	Post-Implementation	0%	0%	30%	70%
Reacting to and coping with terminal dyspnea	Pre-Implementation	8.33%	0%	16.67%	75%
	Post-Implementation	0%	0%	30%	70%
Reacting to and coping with nausea/vomiting	Pre-Implementation	0%	8.33%	16.67%	75%
	Post-Implementation	0%	0%	20%	80%
Reacting to and coping with reports of constipation	Pre-Implementation	0%	0%	33.33%	66.67%
	Post-Implementation	0%	0%	20%	80%
Reacting to and coping with limited patient decision-making capacity	Pre-Implementation	0%	0%	58.33%	41.67%
	Post-Implementation	0%	0%	50%	50%

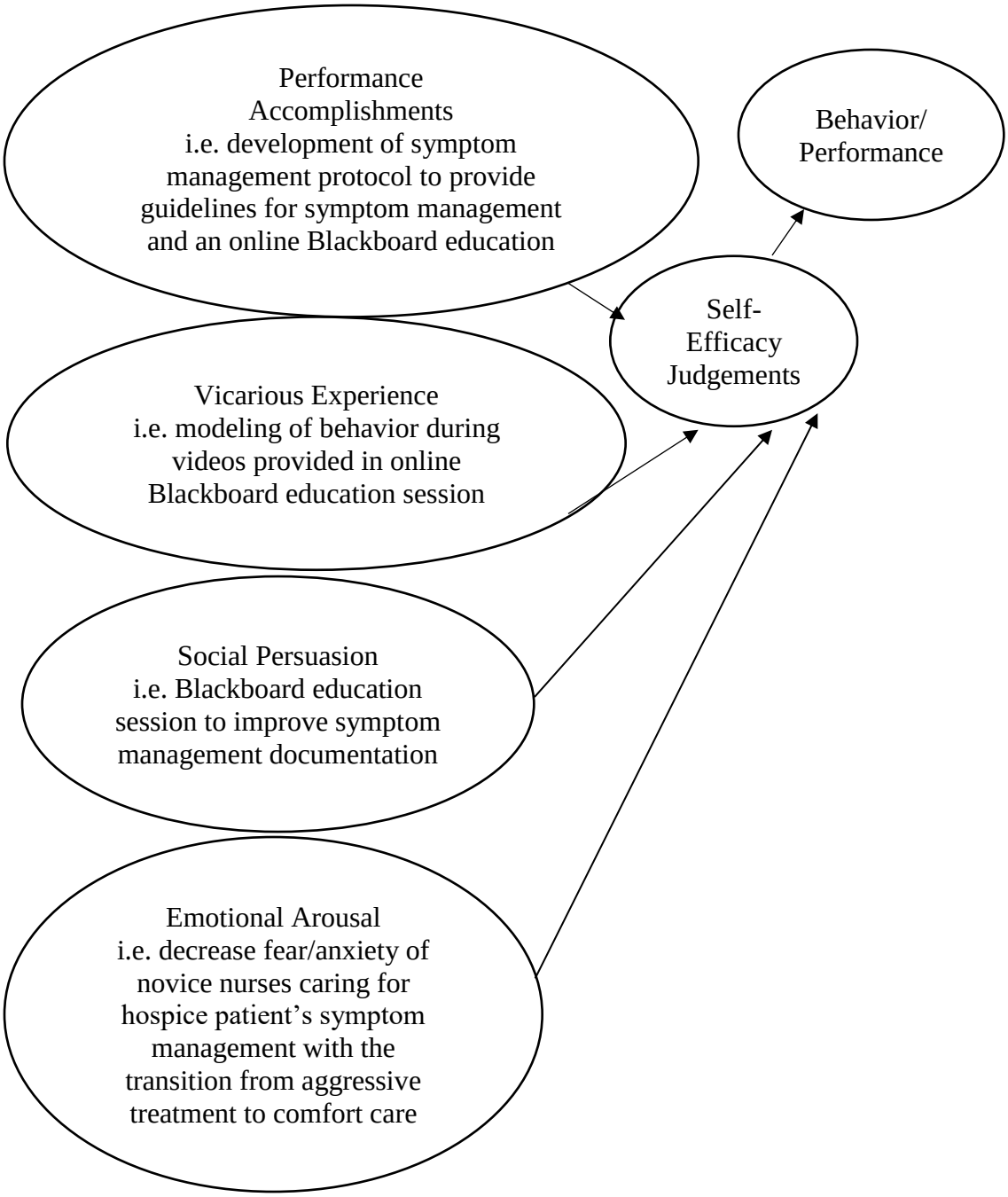
Table 3

Palliative Care Self-Efficacy Scale Nurse Demographic Data

Demographic Item	**Results**
Age (year):	
n	12
mean	44.9
range	26 to 59
Hospice and Palliative Care Training Received:	
Specialist Qualification	0%
On the job training only	100%
Short courses (2-5 days) or other format training not leading to a specialist qualification	25%
No training	0%
Years as a Registered Nurse:	
mean	10.8
range	1 to 37
Years as a Hospice Nurse:	
2 years or less	66.67%
2 to 3 years	0%
3 years or more	33.33%
Level of Nursing Education:	
Associate's Degree	75%
Degree	16.67%
Master's Degree	8.33%
Doctorate Degree	0%

Figure 1

Bandura's Self-Efficacy Theory Model



Model adapted from Bandura, A. (1977).

Figure 2

Pre-Implementation Palliative Care Self-Efficacy Scale Data

Q8 Please rate your degree of confidence with the following patient/family interactions and patient management topics, by selecting the relevant box below.

Answered: 12 Skipped: 4

	1 = NEED FURTHER BASIC INSTRUCTION	2 = CONFIDENT TO PERFORM WITH CLOSE SUPERVISION / COACHING	3 = CONFIDENT TO PERFORM WITH MINIMAL CONSULTATION	4 = CONFIDENT TO PERFORM INDEPENDENTLY	TOTAL	WEIGHTED AVERAGE
Answering patient's questions about the dying process	0.00% 0	8.33% 1	33.33% 4	58.33% 7	12	3.50
Supporting the patient or family member when they become upset	0.00% 0	0.00% 0	41.67% 5	58.33% 7	12	3.58
Informing people of the support services available	8.33% 1	0.00% 0	33.33% 4	58.33% 7	12	3.42
Discussing different environmental options (eg hospital, home, family)	8.33% 1	0.00% 0	41.67% 5	50.00% 6	12	3.33
Discussing patient's wishes for after their death	0.00% 0	16.67% 2	25.00% 3	58.33% 7	12	3.42
Answering queries about the effects of certain medications	0.00% 0	0.00% 0	58.33% 7	41.67% 5	12	3.42
Reacting to reports of pain from the patient	0.00% 0	0.00% 0	25.00% 3	75.00% 9	12	3.75
Reacting to and coping with terminal delirium	8.33% 1	0.00% 0	33.33% 4	58.33% 7	12	3.42
Reacting to and coping with terminal dyspnea (breathlessness)	8.33% 1	0.00% 0	16.67% 2	75.00% 9	12	3.58
Reacting to and coping with nausea / vomiting	0.00% 0	8.33% 1	16.67% 2	75.00% 9	12	3.67
Reacting to and coping with reports of constipation	0.00% 0	0.00% 0	33.33% 4	66.67% 8	12	3.67
Reacting to and coping with limited patient decision-making capacity	0.00% 0	0.00% 0	58.33% 7	41.67% 5	12	3.42

Of the 18 nurses providing direct patient care, a total of 12 (66%) responded to the pre-implementation Palliative Care Self-Efficacy Scale in June 2017. Results were compiled in Survey Monkey®.

Figure 3

Post-Implementation Palliative Care Self-Efficacy Scale Data

	1 = NEED FURTHER BASIC INSTRUCTION	2 = CONFIDENT TO PERFORM WITH CLOSE SUPERVISION / COACHING	3 = CONFIDENT TO PERFORM WITH MINIMAL CONSULTATION	4 = CONFIDENT TO PERFORM INDEPENDENTLY	TOTAL	WEIGHTED AVERAGE
Answering patient's questions about the dying process	0.00% 0	20.00% 2	10.00% 1	70.00% 7	10	3.50
Supporting the patient or family member when they become upset	0.00% 0	0.00% 0	30.00% 3	70.00% 7	10	3.70
Informing people of the support services available	10.00% 1	0.00% 0	20.00% 2	70.00% 7	10	3.50
Discussing different environmental options (eg hospital, home, family)	10.00% 1	0.00% 0	40.00% 4	50.00% 5	10	3.30
Discussing patient's wishes for after their death	0.00% 0	0.00% 0	50.00% 5	50.00% 5	10	3.50
Answering queries about the effects of certain medications	0.00% 0	0.00% 0	60.00% 6	40.00% 4	10	3.40
Reacting to reports of pain from the patient	0.00% 0	0.00% 0	20.00% 2	80.00% 8	10	3.80
Reacting to and coping with terminal delirium	0.00% 0	0.00% 0	30.00% 3	70.00% 7	10	3.70
Reacting to and coping with terminal dyspnea (breathlessness)	0.00% 0	0.00% 0	30.00% 3	70.00% 7	10	3.70
Reacting to and coping with nausea / vomiting	0.00% 0	0.00% 0	20.00% 2	80.00% 8	10	3.80
Reacting to and coping with reports of constipation	0.00% 0	0.00% 0	20.00% 2	80.00% 8	10	3.80
Reacting to and coping with limited patient decision-making capacity	0.00% 0	0.00% 0	50.00% 5	50.00% 5	10	3.50

Of the 16 nurses providing direct patient care, a total of 10 (62.5%) responded to the post-implementation Palliative Care Self-Efficacy Scale in October 2017. Results were compiled in Survey Monkey®.