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Development of Unit-Specific Educational Interventions for Inpatient Palliative Care Needs

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing
Practice at the University of Kentucky

By

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Louisville, Kentucky

2019

Abstract

Purpose: The purpose of this project is to determine the need for palliative care at Norton Women's and Children's Hospital as well as assess the knowledge and attitudes of the healthcare workers in that facility concerning palliative and end of life care.

Methods: For the purposes of this study, the units of the hospital were divided into four categories: intensive care unit (ICU), progressive care unit (PCU), oncology, and medical surgical. A needs assessment of each type of unit was conducted in two parts. The first part was a retrospective chart review to determine the volume of patients on each type of unit that could have potentially benefited from an inpatient palliative care consult. The second part was a voluntary email survey of the nurses and providers. The survey consisted of the Palliative Care Quiz for Nursing (PCQN) to assess knowledge and the Thanatophobia Scale (TS) to assess attitudes towards end of life care.

Results: The chart review revealed that the ICU had the highest volume of eligible patients, followed by PCU and oncology then medical surgical units. ICU had the most in-hospital deaths, though PCU had the most post-discharge mortalities. The survey results only contained information from nurses as no providers responded. Nurses on each type of unit scored similarly on the PCQN and TS, and there was no association between years of experience, type of unit, knowledge, or comfort with palliative care.

Conclusion: This project showed that there is a large need for inpatient palliative care in the critical care and oncology units of the hospital. All nurses and providers could benefit from palliative care education directed towards their specific role in caring for patients nearing the end of life.

Keywords: Palliative care, education, Unit specialty

Acknowledgements

I would like to sincerely thank Dr. Sheila Melander for her guidance during this project and throughout my DNP journey. Additional appreciation goes to Dr. Amanda Wiggins for sharing her robust knowledge of statistics, Dr. Debbie Hampton for enduring the IRB approval process with me twice, and Whitney Kurtz-Ogilvie for editing my final manuscript. Finally, I would like to specially mention the contributions of my colleagues in the Norton DNP Cohort. I truly would not be where I am today without their teamwork and support throughout this program.

Disclosure:

Norton Healthcare Scholarship Recipient: This Doctor of Nursing Practice project and program of study was fully funded through the University of Kentucky College of Nursing and Norton Healthcare academic-practice partnership

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Introduction

The medical model on which our healthcare system is founded has traditionally centered around curing disease and extending life. Though this system has been successful in increasing the average lifespan, the disease-centered approach often views death as a failure and has been proven inadequate for addressing care at the end of life (Center for the Advancement of Palliative Care, 2018). As a result, most Americans will die in the hospital, and as many as one in five will die in the Intensive Care Unit (ICU) receiving futile care up until the moment of death (Feeley, 2016).

Treating disease is an acceptable goal when there is still quality time left for the patient, but there is a point of diminishing returns when further medical care does not improve quality of life and only prolongs suffering. At that point, the goal for the patient should be to transition to comfort and quality of life instead of prolonging life by any means necessary. However, the most common end of life treatment offered to most patients is a series of invasive interventions until it becomes obvious that the patient is actively dying, at which point the patients are transitioned to hospice care. This strategy does not allow for patient autonomy in decision making or proper emotional preparation, and it often misuses scarce healthcare resources on patients who will receive no benefit.

To address this difficult transition from aggressive treatment to end of life, palliative care has recently expanded as a separate discipline to operate within the traditional medical model (Wilson et al., 2016). The goal of palliative care is to promote comfort and alleviate emotional, spiritual, and social distress for patients and their families (CAPC, 2018). Palliative care

providers achieve this by bridging the gap between treatment of chronic conditions and hospice. Ideally, this process should begin two years before the patient becomes terminal and provides patients more autonomy in care as well as the opportunity to prepare for a dignified death (CAPC, 2018).

This project was designed to promote the use of palliative care by introducing patients to palliative care services while they are hospitalized for their disease process. By creating an educational platform that will precede the implementation of an inpatient palliative care team, the hospital staff will be prepared to optimize palliative care services for those patients who will receive the most benefit.

Background

When does aggressive treatment stop extending life and begin prolonging death instead? Defining when the terminal phase of illness begins is not always as straightforward as patients and providers might hope. There are no laboratory tests or physical assessments that can adequately predict the exact day a person will die, so care needs to be tailored to individual patients by the providers who know them best. However, this process is time-consuming, and therefore difficult in the inpatient setting, where many clinicians feel pressured to treat patients quickly and discharge them as soon as possible. Research around inpatient palliative care services has demonstrated positive, large-scale effects and improved outcomes for patients, families, and the healthcare system as a whole that make inpatient palliative care an invaluable resource for hospitals (CAPC, 2018).

Review of the Literature

Current literature strongly supports several benefits of inpatient palliative care specialist services. Inpatient palliative care consults before discharge are consistently associated with a lower number of ICU days during the last two months of life compared to patients receiving no palliative care treatment (CAPC, 2018; Dunn et al., 2018; Khang et al., 2018; Majzoub et al., 2019). Earlier timing of the consult is generally shown to improve patient outcomes (Barkley et al., 2019; Khang et al., 2018), though some studies suggest that a palliative care consult at any point during an inpatient admission is sufficient to prevent in-hospital deaths (Dunn et al., 2018). Though many studies tend to focus on a specific population of patients such as end stage heart failure or ICU patients with multisystem organ failure, overall reduced in-hospital mortality is a common theme in the literature.

Additionally, several sources indicate that there is a reduction in 30-day readmission rates, a metric closely tracked by hospital systems due to policies that govern insurance reimbursement. Several studies showed a reduction in the number of patients who returned to the hospital within 30 days of discharge (Barkley et al., 2019; Majzoub et al., 2019), though there is some evidence that palliative care is associated with an increase in emergency department usage if patients do not thoroughly understand code status (Khang et al., 2018). Researchers have suggested early implementations of inpatient palliative care and education specifically designed for patients and their families as solutions to preventing paradoxical increases in emergency department visits (Khang et al., 2018, Majzoub et al., 2019).

Even when palliative care services are available, those services are still underutilized in most places and rarely achieve optimal outcomes (Albuquerque, 2016; Wiskar et al., 2018). For example, Goepf et al. (2008) found over a decade ago that barriers to proper inpatient palliative

care included resistance to change and lack of understanding by both providers and nurses about the importance of palliative care. More current research indicates that these same barriers still exist, indicating that more education is still necessary to inform healthcare workers about the purpose and benefits of inpatient palliative care consults (McDarby & Carpenter, 2019; Wiskar et al., 2018).

Researchers have discussed several solutions to barriers that result in underutilization of inpatient palliative care. For example, “trigger tools” that use data from the electronic health record to identify patients who may benefit from palliative care have been shown to increase the total number of consults, which expands the reach of palliative care to patients and families who may not understand its many benefits (Hua et al., 2014; Hurst et al., 2018). To overcome the in-hospital barrier of provider resistance, McDarby and Carpenter (2019) demonstrated that better “marketing” of palliative care services through increased visibility on the units and direct, interpersonal marketing resulted in less provider resistance and more consults. Though palliative care is often a scarce resource in hospitals, efficient use of scant palliative care resources is improved by better “targeting” those patients who stand to benefit the most (Hua et al., 2014; Kichler et al., 2018; Pandini et al., 2016).

Throughout the literature, the most important intervention for overcoming barriers to achieve proper utilization is education for patients, families, and healthcare workers (Pandini et al., 2016; Schallmo et al., 2018), and some studies have shown that regardless of experience in dealing with end of life issues, education consistently improves outcomes and optimizes palliative care resource utilization (Moir et al., 2015; Wilson et al., 2016). Education can also ameliorate disparities in access to palliative care such as socioeconomic status and race that are associated with reduced access to this resource (Wiskar, 2018). Therefore, the current literature

indicates that palliative care services can be best implemented by combining the concepts of targeting the correct patients and preparing the staff with knowledge specific to their role in inpatient palliative care.

Needs Assessment Project

This project expands on the previous work of Dr. Katie Roach, who found in 2017 that a screening tool was effective in increasing the number of ICU patients referred to palliative care. The next year, Dr. Amber Folske built on that project and sought to assess the effects of palliative care education with nurses on the rate of inpatient palliative care consults. She found in that study that an educational intervention was effective for increasing the knowledge of bedside nurses, but education alone was not effective in increasing the overall rate of inpatient palliative care consults. Dr. Folske recommended that further study involve provider input and attempt to identify the best educational tools for palliative care on specific units of the hospital.

The design of the project in this document was a two-part needs assessment of Norton Women's and Children's Hospital in the Saint Matthews area of Louisville, Kentucky. The first part was a retrospective chart review to determine the volume of patients on each type of unit of the hospital that could benefit from early, inpatient palliative care consults. The second part was an anonymous, electronic survey of the nurses and providers of the hospital to determine knowledge and attitudes towards caring for patients at the end of life.

Purpose

The purpose of this project was to perform a needs assessment on a single hospital to determine if certain units admit a greater number of patients who might benefit from palliative care than other units. The specific aims were to:

- 1) Determine the average volume of patients who would benefit from a palliative care consult on each type of unit in this hospital,
- 2) Assess the palliative care knowledge of the nurses and providers in the hospital, and
- 3) Assess the level of comfort nurses and providers on different units have with addressing end of life issues.

Theoretical Framework

The hospital used for the study did not yet have access to an inpatient palliative care team, so Witkin's Three Phase Needs Assessment Model was chosen to guide the project because of its simplicity and ease of use for conducting a needs assessment prior to implementation of an intervention. In his book *Planning and Conducting Needs Assessments: A Practical Guide* (1995), Witkin proposes that a thorough needs assessment should have three phases to properly address any issues within an organization: Preassessment, Assessment, and Postassessment. Also, he proposes there are three levels of stakeholders within the organization that should all be accounted for in each phase: The End Users, The Staff, and The Organization (discussed in more detail in "Description of Stakeholders" section later). By systematically and methodically examining processes and gaps in performance, a well-performed needs assessment should be able to provide guidance for an organization to move from the current status to an operation that aligns more with the larger administrative vision (Figure 1).

Phase I of the model is *Preassessment*, in which the current state of operations is examined for opportunities of improvement. In this project, the preassessment phase involved the informal, subjective observations of many of the hospital staff regarding end of life care. Many bedside nurses in critical care areas felt that patients were "dumped on their unit to die," leaving

the nurses to deal with the emotional fallout without adequate preparation and resources. Bedside nurses in other areas of the hospital felt that they were not in direct contact with dying patients very often, though they also lacked proper training for administering end of life care to the hospice patients admitted to their units. Regardless of unit, there was an apparent need to address the poor end of life care practices in the hospital, and Phase I determined that both the frequency of end of life care needs on each unit should be measured as well as nurses' knowledge and attitudes toward end of life care should be evaluated (Witkin & Altschuld, 1995).

Phase II of the process, often considered the most important, is *Assessment*. In this phase, formal research is conducted into the areas identified in Phase I. In this project, the frequency of palliative care opportunities was assessed through chart reviews of a sample from each unit, and nurses' knowledge and attitudes about end of life care were assessed through a voluntary survey. The information gathered was then utilized in Phase III, *Postassessment*, to determine what steps should be taken after the completion of the project.

By using Witkin's Three Phase Model, this needs assessment project was given a foundation on which to structure the information gathered. This project had the immediate goal of guiding the hospital on which units to focus training efforts as well as the larger goal of contributing more information to the literature on which type of hospital units benefit most from palliative care.

Agency Description

Setting

Norton Women's and Children's Hospital, a 373-bed community hospital in a suburban area of Kentucky, was the setting for this study. It provides its community with full inpatient and

outpatient medical surgical services, with specialties in bariatric surgery, orthopedic surgery, gynecological care, and oncology. For the purposes of this study, the hospital was divided into four categories based on the type of patients normally treated there:

- 1) Intensive care unit (ICU)
- 2) Progressive care unit (PCU)
- 3) Oncology unit
- 4) Medical surgical telemetry units (med/surg)

Although the hospital does have a full 24-hour emergency department as well as labor and delivery services, those areas of the hospital were excluded from the study due to the transitive nature of the patients they serve.

There were very few barriers to implementation. Information on randomly selected, anonymous patients was facilitated by the Electronic Health Record (EHR) that hospital in the study uses for each patient that it treats. A wealth of diagnoses, test results, and encounter notes are all aggregated and readily available in an intuitive interface. This means that the research was not hampered by difficulty in obtaining information, and the record was as complete and comprehensive as could reasonably be expected.

Target Population

Only adult inpatients admitted to one of the four treatment areas were included in the first phase of the project, the retrospective chart review, to determine the frequency of admissions that might benefit from an inpatient palliative care consult. Patients in procedure areas, the operating room, labor and delivery, and the emergency department were excluded due to the generally stable nature of the patients and the temporary nature of their interaction with those areas. The lower age limit was 18, and there was no upper age limit. Race, ethnicity, and gender were not

recorded, as they have no bearing on a patient's eligibility for palliative care and were therefore not germane to the study data.

For the second phase of the study, a voluntary survey completed by healthcare workers, all registered nurses and providers from the selected units were included. There were no exclusion criteria, and every healthcare worker was eligible to complete the survey through their company email address.

Congruence with Organizational Values

The administration of the hospital system lists several values that guide their work, including "set the standard for quality and caring," "continually improve care and service," and "demonstrate stewardship of resources." This project exemplifies these specific values as inpatient palliative care addresses all these points; it is the standard of care for those at the end of their lives, it improves the quality of both healthcare and life, and it conserves resources by preventing futile care in the intensive care unit during the last days of a person's life (CAPC, 2018). The alignment of all these values makes the palliative care needs assessment project a perfect fit with the hospital at which it was performed.

Description of Stakeholders

Returning to Witkin's Theoretical Framework, it is recommended to examine the stakeholders at three layers of the organization. First is the end user, which according to Witkin is the patient because that is who has the potential to gain the most benefit from the introduction of more comprehensive palliative care services. The next level is the staff who provide the service, specifically the nurses and nurse managers who work on the units to deliver and coordinate end of life care. Finally, the third level is the hospital system itself. The organization at this level may not see immediate, drastic change, but it is possible that over time the

organization will see a better distribution of resources and a happier client base in the form of families who witnessed the benefits of palliative care and chose to return to the company for later healthcare needs.

Methods

IRB Approval

Dual IRB approval was obtained through the Norton Healthcare IRB and the University of Kentucky. A waiver of the requirement for the informed consent process was obtained as this study posed no more than minimal risk to either the patients or the survey respondents.

Procedure

A total of 200 randomly selected charts were requested from Norton Research Data Services. The hospital units were divided into four categories, ICU, PCU, oncology, and med/surg. The electronic medical records of 50 patients admitted to each of the four types of unit between January 2019 and April 2019 were manually reviewed to determine if the patients met the criteria for an inpatient palliative care consult. The data collected on each individual patient included age, conditions that would benefit from palliative care, and if the patient died in the hospital or after discharge. Any condition such as congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), or cancer that had a poor or terminal prognosis in the doctors' notes was included in the count of potential consults.

The survey (Appendix 2) was sent via email to 225 total recipients, which included all nurses and providers who cared for patients on the previously specified units. The survey was anonymous and voluntary, with the only identifying information of role (nurse or provider),

years of experience, and type of unit. It was first transmitted in July of 2019 with reminders every two weeks sent to those who had not completed the survey.

The survey was comprised of two tools, the Palliative Care Quiz for Nursing (PCQN) and the Thanatophobia Scale (TS). The PCQN is 20 True or False questions that assess a healthcare worker's knowledge of palliative care. The maximum score is 20 and higher scores indicate a higher knowledge of palliative care. It has an internal consistency of 0.78, indicating an acceptable degree of reliability and validity. The TS has seven statements that the respondent rates on a Likert Scale from 1 (completely disagree) to 7 (completely agree) that assesses an individual's comfort with caring for the patient nearing end of life. The maximum score is 49 and greater cumulative scores indicate more negative attitudes towards end of life. It has an internal consistency of 0.85, suggesting a good degree of validity and reliability.

Data Analysis

Descriptive statistics were used to summarize study variables using means and standard deviations or frequency distributions, as appropriate. The data from the survey were analyzed using Spearman's Rho and One-Way ANOVA to determine association between variables. All data analysis was conducted using SPSS version 25 with an alpha level of 0.05 throughout.

Results

Manual Chart Review

The randomly selected patients ranged from 23 to 98 years with a mean age of 60.2 years (SD= 1.2). The manual chart review revealed that the ICU had the highest rate for potential consults (58%) and that the combined medical surgical units had the lowest rate (22%; see Table 1). The most common diagnoses from the chart review were, in descending order: cancer (48%),

multiple admissions from subacute rehabilitation facilities (SARs; 28%), COPD (19%), memory and neurological problems (16%), CHF (14%), ESRD (9%), liver failure (7%), and intractable pain of unknown origin (4.4%; see Table 2).

The results were similar for the rates of in-hospital mortality across the units, with ICU and PCU having the highest rates (22% and 10%, respectively). The most common diagnoses of those who died unexpectedly in the hospital were cancer (43%), multiple admissions from SARs (33%), CHF (24%), COPD (19%), ESRD (14%), and multiple sclerosis (5%; see Table 3). Six total post-discharge deaths were discovered in the random sample, four from PCU, one from oncology, and one from a medical surgical unit. There were no appreciable common diagnoses among the six post-discharge deaths, though it is notable that only one was sent home with hospice.

Survey

The anonymous, voluntary survey was emailed to a total of 225 nurses and providers and received 63 responses for a response rate of 28%. The respondents were entirely nurses and all units were represented equally; no providers submitted a response. The median years of nursing experience was 4.

The mean score for the PCQN ranged from 14.0 to 15.9 across units (out of a maximum 20; SD= 2 for all; see Table 4). This indicates approximately a 75% understanding of fundamental principles of palliative care. There was no association between years of experience and knowledge and no difference in knowledge by type of unit worked (see Table 5).

The mean score for the TS varied by unit from 13.7 (SD= 7.2) for med/surg to 18.1 (SD= 9) for PCU. These scores indicate a fairly high level of comfort with end of life care by all nurses across units. There was no association between comfort and years of experience and no

difference in comfort by the type of unit worked. Interestingly, there was also no correlation between PCQN and TS scores, meaning that nurses who reported more comfort did not necessarily have more knowledge regarding palliative care, and nurses who scored high in knowledge were not necessary more comfortable caring for patients at the end of life.

Discussion

The data from the manual chart review indicate that there is a great area of opportunity in Norton Women's and Children's Hospital for introducing patients to palliative care early, especially on the ICU, PCU, and Oncology units. The higher rates of potential consults in the critical care areas were consistent with national trends, though the total number of consults on the critical care units was higher than expected. This can potentially be attributed to the high volume of cancer patients attracted to the hospital for its specialty in oncology services. Cancer is already recognized by many as one of the main target groups of palliative medicine, though this study revealed there are many other conditions that be missed when considering an inpatient palliative care consult, specifically multiple admissions from SAR and organ failure.

Furthermore, the chart review revealed several potentially underserved patient populations such as those patients with COPD, CHF, and ESRD who disproportionately died in the hospital or after discharge. By addressing these specific conditions, the hospital stands to improve patient outcomes while simultaneously reducing the rates of 30-day readmissions and unexpected in-hospital mortality.

The survey data revealed that there is no correlation between years of experience, knowledge, and the type of unit on which a nurse works. This indicates that there is an area of opportunity for education for all healthcare workers on every unit. The questions with the lowest

correct response rate largely concerned hesitancy with overmedication and sedation as well as communicating with family members about end of life issues.

While it is encouraging that nurses do not feel completely overwhelmed by the prospect of directly caring for patients approaching the end of life, it is indicative of a lack of provider interest that no providers returned the survey. No information is known for certain on provider knowledge or attitudes about palliative care, but the lack of participation can be interpreted as an opportunity for education on the purpose and benefits of palliative care to patients, families, and the hospital as a whole.

Implications for Future Practice

Development of an Educational Platform

The hospital currently introduces new concepts using an “alpha unit” approach, meaning that one unit is selected to trial an intervention to determine what aspects are successful and which need to be remodeled for the next iteration. For the introduction of an inpatient palliative care team, it would be maximally beneficial to use the critical care area, which includes both the ICU and PCU units that are under the same manager, to deliver the first round of education. This would capture a large number of patients who could benefit from palliative care and allow good “marketing” for palliative care to be seen by patients and staff as more than just an adjunct to cancer or hospice care.

Inpatient palliative care is already available at the other hospitals in the Norton system, so it is assumed that the service will be similar when it expands to Norton Women’s and Children’s Hospital St. Matthews. Therefore, the goal of the alpha unit will be to increase referrals to the palliative care team through an educational platform that incorporates a trigger model that has

been shown in the research to both increase palliative referrals and more precisely capture those patients who would receive the most benefit from palliative care (Hua et al., 2014; Hurst et al., 2018; Kichler et al., 2018).

For the proposed alpha unit, the team would consist of nurses, providers, and care managers. Care managers at this hospital are nurses who are involved with patient care from admission to discharge and therefore contribute heavily to post-discharge planning for each individual patient. The members of this team participate in daily rounds for each patient in the critical care area and therefore are in the ideal, collaborative space to identify patients in need and recommend palliative care consults.

The educational platform should be multidisciplinary and tailored to each role's responsibilities in delivering palliative care (Price et al., 2017; Smith et al., 2019). Nurse-focused education would focus on communication skills to use with patients, families, and providers, as well as specific medications and dosages they may see when taking care of patients at the end of life. Providers will need to be educated on how palliative care benefits patients as well as the specific diagnoses that might necessitate an inpatient palliative care consult. Finally, the care managers should receive education on a trigger model to identify patients who may benefit from inpatient palliative care and appropriate communication skills. The care manager is in a unique position to promote palliative care services as they are the connective link between patients, nurses, providers and often outside health services that may be involved after discharge.

Opportunities for Further Study

This project was the initial piece of introducing inpatient palliative care to the hospital, so there are many areas of opportunity for further study. For example, a qualitative study could be undertaken to identify how providers perceive palliative care and which specific barriers exist to

effective collaboration with an inpatient palliative care team. After the above educational platform is introduced, a future study might implement a “trigger model” to identify constellations of diagnoses and use the electronic chart data to increase the number of palliative care consults.

After palliative care is introduced to the hospital, evaluation of the portion of eligible patients who receive an inpatient palliative care consult will guide further efforts to expanding or maintaining the palliative care program. Finally, after palliative care is well established in the culture of the hospital, patient outcomes should be addressed to demonstrate the value of the team in reducing in-hospital mortalities, post discharge deaths, and 30-day readmission rates.

Limitations

This study had several limitations in its design. The findings are not generalizable, though given that the goal of the study was to create a specific educational platform for the hospital, this is to be expected. The primary researcher was an employee of the hospital in which the study was conducted, resulting in a degree of review bias during the chart review. For example, one patient with multiple admissions and a chronic lung disease was not included as a potential palliative care consult because the primary researcher recognized him as a “frequent flyer” who often utilized the hospital for psychosocial reasons more than medical complaints.

Cross contamination of the patient populations was another identified problem, as some units were in flux during the study. For example, the oncology unit was educating nurses to be able to care for patients on diltiazem drips for atrial fibrillation, a skill that has traditionally been executed only on the PCU. Also, one of the medical surgical units began accepting up to eight “simple” overflow PCU patients during the period of the study, though there is no objective

definition of what makes a PCU patient “simple.” It should also be noted that some patients “hospital hop,” utilizing several hospitals in the area that utilize different electronic medical data storage systems, so it is possible that some chart data were incomplete with deaths, number of visits, etc.

In addition, voluntary surveys are traditionally problematic, even with the expected response rate. It is conceivable that a nurse who knew nothing about palliative care would choose not to participate in a survey out of ignorance or desire to not contaminate results. In addition, the survey was sent during the summer months when many primary nurses were on vacation. To fill the gaps in the schedule, managers of the units often use traveler or agency nurses, though the number of these transient nurses that were employed during the timeframe was impossible to determine within the constraints of this study. These temporary nurses care for the same end of life patients as full-time nurses, so their input should be considered in the future.

Conclusion

Research indicates that palliative care is a cost-effective method of reducing futile hospital care and improving patient experiences during the end of life; however, palliative care is still underutilized in the hospital setting. This project demonstrated that there is an abundant need for inpatient palliative care at Norton Women’s and Children’s Hospital, as well as a need for education for all nurses and other healthcare providers. Development of a specific educational platform to address the contributions to promoting palliative care for each specific role will likely optimize the use of future inpatient palliative care services and is important to achieve early palliative care guidance for patients to direct their own care.

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Tables

Table 1. Frequency of Potential Consults by Unit

| Unit | Qualify for Consult n (%) | Died in Hospital n (%) | Died after Discharge n (%) |
|-----------------|--------------------------------------|-----------------------------------|---------------------------------------|
| ICU (n=50) | 29 (58%) | 11 (22%) | 0 (0%) |
| PCU (n= 50) | 25 (50%) | 5 (10%) | 4 (8%) |
| Oncology (n=50) | 25 (50%) | 4 (8%) | 1 (2%) |
| Med/Surg (n=50) | 11 (22%) | 1 (2%) | 1 (2%) |

Table 2. Frequency of Diagnoses from Potential Consults (N= 90)

| Diagnosis | n(%) |
|------------------------------|-------------|
| Cancer | 43 (47.8%) |
| Multiple Admissions From SAR | 25 (27.8%) |
| COPD | 17 (18.9%) |
| Psych/Memory/Neuro | 14 (15.6%) |
| CHF | 13 (14.4%) |
| ESRD | 8 (8.9%) |
| Liver failure | 6 (6.7%) |
| Pain | 4 (4.4%) |

Table 3. Frequency of Diagnoses of Patients who died in the hospital (N= 21).

| Diagnosis | n(%) |
|--------------------|-------------|
| Cancer | 9 (42.9%) |
| Multiple admission | 7 (33.3%) |
| CHF | 5 (23.8%) |
| COPD | 4 (19.1%) |
| ESRD | 3 (14.3%) |
| MS | 1 (4.8%) |

Table 4. PCQN and TS Scores from the units.

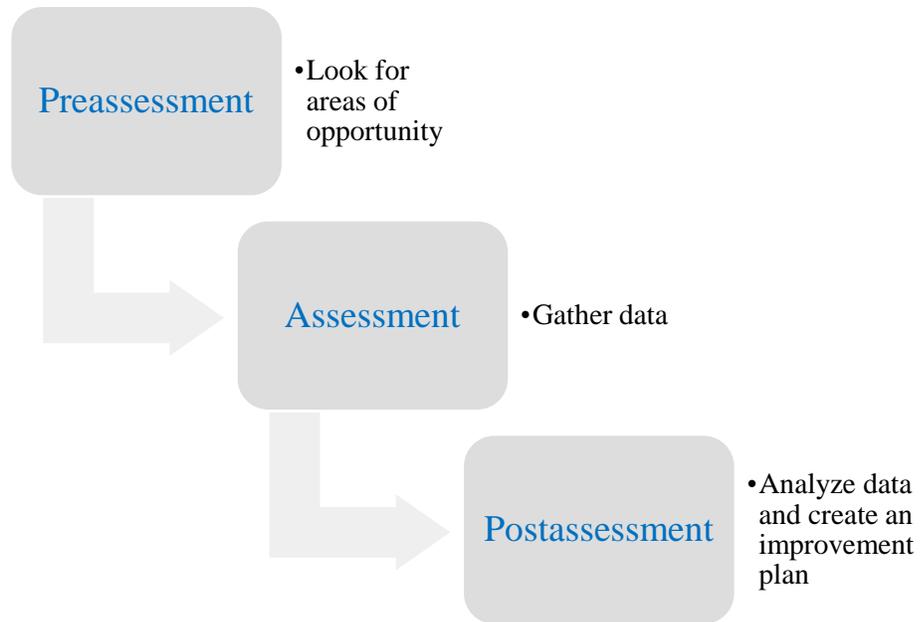
| Primary unit | Knowledge/PCQN Score | | Comfort with care/TS Score | |
|--------------|----------------------|-----------|----------------------------|------------|
| | Mean (SD) | F (p) | Mean (SD) | F (p) |
| ICU | 14.7 (2.1) | 1.8 (.16) | 15 (6.3) | 0.61 (.62) |
| PCU | 15.9 (1.9) | | 18.1 (9) | |
| Med/surg | 14.0 (1.9) | | 13.7 (7.2) | |
| Oncology | 15.3 (2) | | 14.8 (11.3) | |

Table 5. Relationship between years of experience, knowledge, and comfort with care.

| | Knowledge rho (p) | Comfort with care rho (p) |
|-----------------------------|----------------------|------------------------------|
| Years of experience as a RN | .22 (.11) | -.09 (.51) |
| Knowledge | -- | -.14 (.33) |

Figures

Figure 1. Graphic of Witkin's Needs Assessment Model



Appendix

The following is a copy of the survey that was emailed to the staff of the hospital. It contains basic demographic data and the full questions to the PCQN and TS.

Select your current role: -Bedside Nurse
 -Physician/APRN

What is your primary unit: -ICU
 -PCU
 -5E (oncology)
 -4W
 -5W
 -7W
 -I am a provider and work on every unit in the hospital.

Palliative Care Quiz for Nursing

Please answer True or False to the following questions:

1. Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration.
2. Morphine is the standard used to compare the analgesic effect of other opioids.
3. The extent of the disease determines the method of pain treatment.
4. Adjuvant therapies are important in managing pain.
5. It is crucial for family members to remain at the bedside until death occurs.
6. During the last days of life, the drowsiness associated with electrolyte imbalance may decrease the need for sedation.
7. Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain.
8. Individuals who are taking opioids should follow a bowel regime.
9. The provision of palliative care requires emotional detachment.
10. During the terminal stages of an illness, drugs that can cause respiratory depression are appropriate for the treatment of severe dyspnea.
11. Men generally reconcile their grief more quickly than women.
12. The philosophy of palliative care is compatible with that of aggressive treatment.
13. The use of placebos is appropriate in the treatment of some types of pain.
14. In high doses, codeine causes more nausea and vomiting than morphine.
15. Suffering and physical pain are synonymous.
16. Meperidine (Demerol) is not an effective analgesic in the control of chronic pain.
17. The accumulation of losses renders burnout inevitable for those who seek work in palliative care.
18. Manifestations of chronic pain are different from those of acute pain.
19. The loss of a distant or contentious relationship is easier to resolve than the loss of one that is close or intimate.
20. The pain threshold is lowered by anxiety or fatigue.

Thanatophobia Scale

Please rate the following statements from 1 to 7, with 1 being “Completely disagree” and 7 being “Completely agree.”

1. Dying patients make me feel uneasy.
2. I feel pretty helpless when I have terminal patients on my ward.
3. It is frustrating to have to continue talking with relatives of patients who are not going to get better.
4. Managing dying patients traumatizes me.
5. It makes me uncomfortable when a dying patient wants to say goodbye to me.
6. I don't look forward to being the personal nurse (or physician) of a dying patient.
7. When patients begin to discuss death, I feel uncomfortable.