



Research Article

Multidimensional Approach to Assessing Pain in Hospice Patients

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Abstract

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Keywords: Pain assessment; Hospice care; Multidimensional approach; Unidimensional approach; Pain experience

Introduction

Pain is a combination of physical, psychological, social, emotional, and spiritual components that include anxiety, the patient's state of mind at the time of pain, and sensory nerve patterns evoked by physical stimulation [1]. Approximately 1.6 million patients are admitted to hospice care for cancer, heart disease, or [2]. Pain is a common complaint of hospice patients and may be due to the disease process or sequela of prior treatment such as chemotherapy. Effective pain management can be beneficial in enhancing the quality of life for patients and their families. Inadequate pain management may be due to the provider's preliminary assessment of pain, the patient's inability to convey pain levels or refusal of treatment for pain, and pain medication ineffectiveness or side effects [3]. Current methods for assessing pain in hospice patients, such as the Numerical Pain Rating Scale (NPRS) and Visual Analog Scale (VAS), are limited to measuring the generalized intensity of the pain [4]. Multidimensional pain assessment methods would better understand the patient's pain experience [5]. This paper will explore the problem of inadequate pain assessment and evidence-based multidimensional approaches to assess pain accurately and comprehensively in patients receiving

hospice care.

Evidence of the Problem

Inadequate pain assessment of patients receiving hospice care is a local and national problem [6]. Barriers to practical or comprehensive pain assessment include using unidimensional tools, the patient's inability to communicate pain, the patient's belief that pain is a typical result of the disease process, and inadequate training of clinical staff to assess the pain experience using a multidimensional approach [3]. Evidence of insufficient pain assessment of patients receiving hospice care is further explored at the local and national levels.

Local/Site

The proposed project setting is a community-based hospice organization that provides compassionate end-of-life care for patients in the home, contracted facilities, and hospital settings. The multidisciplinary hospice care team focuses on managing symptoms rather than recovery from disease. The immediate care team includes a physician, nurse practitioner, registered nurse case manager, licensed practical nurse, hospice care aid, medical social worker, volunteer coordinator, and chaplain. Compassionate care requires collaboration with patients, family, and providers to ensure the comfort needs of the patients are fully met.

Primary responsibility of nurses is accurate pain assessment. Unfortunately, there is a lack of a standardized approach to pain assessment and a plan for educating patients and their families on pain assessment processes [7]. Current tools require patients to rate pain intensity from 0 to 10, which is subjective and lacks standardized measurement [8].

One problem observed at this site is inadequate pain assessment, potentially resulting in less-than-optimal pain management. The current standard protocol for pain assessment includes a comprehensive multidimensional pain assessment that is only completed on admission. The dimensions include how pain affects sleep, activity, rest, constipation, nutrition, body systems, and mental health. This pain assessment tool is embedded within the electronic health record for admission assessment. Still, on subsequent visits, pain is assessed using unidimensional tools such as the NPRS, VAS, and Face, Legs, Activity, Cry Consolability (FLACC) scale. In hospice care, family members and caregivers are often responsible for treating pain at home based on assessment findings. Families, caregivers, and patients only receive verbal instructions regarding pain assessment and management. Lack of knowledge regarding the pain assessment process often results in patients and families inadequately reporting pain and treating pain, which leads to poor pain control. The current methods for pain assessment do not accurately reflect the accurate level and impact of the patient's pain experience.

National

Professional organizations such as the World Health Organization (WHO) and National Coalition for Hospice and Palliative Care (NCHCP) have published guidelines for quality palliative care and management of cancer pain, emphasizing principles of multidimensional pain assessment [9,10]. Multidimensional pain assessment should include components that improve patient satisfaction while giving holistic care. These components include factors focused on palliative care that helps to reduce symptoms associated with pain; review the intensity or quality of pain and how it affects daily activity; understand the location of patient's pain and if it continues to spread; focus on self-reported description of pain and how the patient understands pain; and timing of when pain occurs in relation to movement or changed behavior [10]. These guidelines of palliative, quality, region, subjective description and timing (PQRST) assessment help to relieve pain under national hospice care guidelines [10]. From admission, treatment structure, physical and psychological aspects of care should be assessed to determine the patient and family's understanding of pain and discuss how it will be controlled [10]. Physical and psychological assessments facilitate alignment of the treatment structure based on the patient's pain level and mental health as determined by past experiences [10]. Social aspects provide supportive care for the patient based on spiritual,

emotional, and cultural perspectives to make the patient feel a part of a caring and trusting community [10]. Social aspects include a chaplain, social worker, and family assistance to ensure all needs are met throughout hospice care. Consideration of patients' spiritual and emotional beliefs fosters trust in the treatment process discussed with clinicians to improve pain control. A holistic and ethical attitude toward care improves the patient's quality of life and understanding of end-of-life processes to help them feel at ease with assessment and treatment. Incorporating pharmacologic aspects, such as symptoms during pain levels and assessment measures in the evaluation, will help both the clinicians and patients understand how the body is responding to medicines and holistic treatments [9]. These aspects are necessary guidelines during a patient's self-reported assessment to improve patient outcomes and educate families on why screening and evaluation are vital during ongoing care [10].

Other recommendations include frequent reassessment based on the patient's pain level. If the patient states that pain is sharp and spreads throughout the body, weekly reassessment is done to control pain levels [11]. Daily activities can intensify pain and affect emotional and mental health, determined under aggravating and intensity aspects during assessment [11]. In this case, reassessment needs to be completed daily to control pain and improve function. If the pain does not alter activities and is only temporary, reassessment can ensure temporal and functional aspects are not negatively affected [11]. This reassessment using multidimensional tools provides better treatment options and patient outcomes [11].

Evidence suggests these expert guidelines are not being followed, resulting in less than optimal patient outcomes [8]. Adequate assessment and holistic care are necessary for positive patient outcomes [12]. Only assessing pain without providing spiritual and psychological aspects has led to stressful experiences and lowered the quality of life for patients [12]. Incorporating a holistic approach with pain assessment tools meet WHO guidelines for improving quality of life and overall patient outcomes [12].

Inadequate pain assessment results in less than 10 % of U.S. hospice care patients being adequately assessed to relieve their pain and maintain a comfort level, which causes the patient to have negative experiences due to a lack of reassessment [8]. These patients felt that not enough questioning and assessment was completed to relieve their pain and provide a more comprehensive approach to their care [8]. Only 30% of advanced cancer hospice care patients were assessed with a pain scale and given adequate assessment based on their level of [8]. While completing this study during a six-month period, these patients were evaluated based on assessment, pain score of less than 7 out of 10, and if reassessment was performed [8]. It was concluded that patient satisfaction was not achieved while assessing pain without regard

to patient understanding, psychological background, and physical function using only NPRS and VAS pain scales [8]. Following standards of care based on WHO guidelines have improved patient satisfaction and relief from pain [8]. For this group of progressive cancer patients, pain needed to be reassessed with the VAS to measure pain intensity and include holistic follow-up questions to assess psychosocial changes [8].

Unidimensional tools, such as NPRS and VAS, are appropriate for assessing pain intensity, yet these tools alone are inadequate for determining the patient's pain experience [8]. Using pain assessment tools, such as pain scales, questionnaires, and pain journals help establish communication between patients and clinicians to better understand the patient's perception of pain and evaluate those who cannot self-report [13]. A standardized multidimensional pain assessment approach should be used at admission and during each nurse visit [14]. Multifaceted pain assessment provides additional information regarding the patient's pain experience.

Impact of the DNP Project on Nursing Practice and Patient Outcomes

The development of a multidimensional approach for assessing pain for patients receiving hospice care has the potential to improve the accuracy of pain assessment and better reflect the patient's pain experience. Multifaceted pain assessment can facilitate better pain management, thus improving patient satisfaction and quality of life.

Purpose of the Project

This project aims to promote evidence-based care by developing a plan to implement and evaluate multidimensional pain assessment methods for hospice patients.

Definition of Terms

For this project, the following terms are defined:

Pain

- **Theoretical definition:** A highly unpleasant sensation of the body caused by illness or injury affecting the physical, spiritual, psychological, and social psyche [15].
- **Operational definition:** The discomfort and suffering assessed during hospice care evaluation of patients with a terminal illness.

Pain Assessment

- **Theoretical definition:** A comprehensive valuation of the variables that may affect a patient's pain perception and presentation; an understanding of the obstacles that may influence clinicians' diagnosis and pain control; a complete procedure for characterizing pain and its impact on function [4].

- **Operational definition:** Pain assessment is the act by the clinician of identifying all characteristics and severity of pain in the hospice patient using the patient's verbal report and nonverbal indicators of pain.

Unidimensional Pain Assessment

- **Theoretical definition:** Quality and reliability of pain assessment based on measurement of physical pain in hospice patients [4].

Operational Definition:

- Limited to assessing intensity, location, duration, and quality of pain while using pain assessment tools such as the NPRS, VAS, and FLACC scale.

Multidimensional Pain Assessment

- **Theoretical definition:** Interaction between the biological, social, cultural, and psychological evaluation of the pain experience [16].

Operational Definition

- Evaluation of pain based on history, physical assessment, psychosocial assessment, behavioral assessment, and functional aspects of pain.
- Clinically Aligned Pain Assessment tool (CAPA) - A pain management instrument that assesses five aspects of pain: satisfaction, pain changes, pain management, performance, and sleeping [17].
- Patient-Reported Outcomes Measurement Information System (PROMIS) evaluates patients' physical, mental, and social health with serious illnesses [14].

Hospice Care

- **Theoretical definition:** Compassionate care for people in the last stages of an advanced illness addresses the multidimensional needs of patients [18].
- **Operational definition:** An arrangement model where patients with terminal late-stage illness receive the end of life care.

Framework

Watson's Theory of Human Caring emphasizes nursing's values and caring practices in the healing process, considering all aspects of the patient's life and experience. These concepts support the development of a plan for multidimensional pain assessment in hospice patients.

Overview of Watson's Theory of Human Caring

Watson's Theory of Human Caring provides a holistic approach to incorporating a caring attitude towards patients that will be an essential asset for maintaining the quality of life. This framework

includes the patient as a partner in providing patient-centered care to complement conventional medicine. The theory assists the nursing staff in selecting more appropriate tools and technologies to care for the whole person [19].

The elements of this theory are known as Caritas processes or carative factors. The ten carative factors to consider are:

1. Forming an empathetic value system for patients stems from beliefs and moral consciousness toward caring for others [20]. Showing empathy towards patients to connect with them and understand their emotions will establish a better, healthy relationship.
2. Instilling faith and hope to encourage patients to focus on positive aspects of life and create a distraction away from pain and feeling of burden [20].
3. Cultivating sensitivity to self and others to recognize individual feelings and beliefs compared to the patient's emotions [19] involves acknowledging that cultural backgrounds and childhood environments will alter a patient's outlook on life.
4. Developing a helping and trusting relationship so that the patient will feel comfortable expressing feelings and pain without retaliation for increased medicine dosage [20]. Patients want nurses to be transparent and understanding of their needs so that they will feel cared for properly.
5. Promoting an expression of feelings will help the patient understand how their illness affects family members and their mental health [20]. Using a daily journal to record thoughts and pain levels will better understand how a patient's mental health progresses.
6. Using problem-solving techniques for decision-making when issues regarding medicine, dosage, side effects, declined daily activities, or changes in appetite arise. These resolutions should benefit the patient and their comfort level [20].
7. Promoting teaching and learning where nurses will learn how to care for patients using a holistic, compassionate method based on scientific research and enhanced training from direct management teams [19].
8. Promoting a supportive environment consisting of nursing staff and the patient's family members committed to maintaining the patient's comfort level based on pain assessment [20].
9. A caring attitude is focused on the patient to make them feel respected, supported, and valued.
10. Assisting with the gratification of human needs to ensure the patient is eating well, engaging in daily mobility, and getting adequate sleep to maintain mental and physical health [20].
11. Allowing for existential and phenomenological forces to

help patients understand how their past experiences and decisions helped define their lives and are proud of their accomplishments. Patients need to feel they are not a burden due to their current illness [20].

Elements of Watson's Theory of Human Caring Applied to DNP Project

Holistic care is part of the concepts of the Human Caring Theory and supports a multidimensional approach to pain assessment. Holistic care will help a therapeutic relationship between the patient and nursing staff leading to improved pain assessment and validation in self-reporting pain and symptoms [20]. Focusing on the patient's physical and psychosocial symptoms will give a more detailed evaluation of the patient's expectations of relief and control. When patients feel that their attitudes and concerns about pain are reassessed, they feel additional options will be made available to control pain besides medications. Emotional, psychological, spiritual, and physical needs are important aspects that need consideration. They review thought processes in a comprehensive assessment to provide adequate care and quality of life [19].

Through multidimensional pain assessment, a broader model of care can be instituted to manage the individual's unique pain experience. A multidimensional pain assessment method in the hospice care environment will better address the patient's mental, spiritual, and physical needs. The registered nurse integrates their feelings in the caring interaction rather than closing themselves off to new emotional and spiritual encounters while attending to the patient's physical health requirements [21]. Figure illustrates how the nurse's relationship with the patient facilitates sharing thoughts, feelings, and social beliefs, supporting transparent and effective communication for improved assessment.

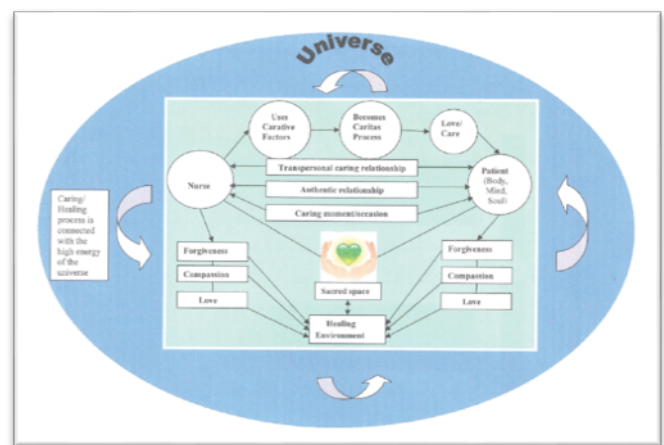


Figure: Watson's Theory of Human Caring [22].

Assumptions

For this project, the following assumptions are made:

- The collaborating management team at the hospice care organization will provide honest feedback regarding the plan for implementation and evaluation of the multidimensional pain assessment methods.

Review of Literature

The following sections discuss the search process and the common themes from the literature review.

Defining the Search Process

A multi-search was completed at Samford University online library <https://library.samford.edu/> using the keywords “pain assessment AND hospice” to explore an understanding of inadequate pain assessment and diversify research. The search was narrowed by adding the terms “multidimensional,” “comprehensive,” “palliative,” and “evidence-based,” limiting selections to scholarly (peer-reviewed) and academic journals and full text. The boolean search was conducted to narrow down results to define evidence-based research methods and outcomes.

Results from the online databases include:

- PubMed: 18 hits; 2 relevant
- CINAHL: 3 hits; 2 relevant
- Samford University online library: 8 hits; 3 relevant
- SAGE Publications: 45 hits; 5 relevant

Topics that emerged from the literature included the following: (a) inadequate pain assessment for hospice patients, (b) professional standards for pain assessment in hospice care, (c) multidimensional approach to pain assessment, (d) and multidimensional pain assessment tools.

Inadequate Pain Assessment for Hospice Patients

The literature identifies inadequate pain assessment as a common issue for hospice patients [23]. Inadequate assessment of pain in hospice patients with various cancers, heart disease and dementia lead to uncontrolled pain levels and decreases positive patient outcomes [23].

To determine how frequent inadequate assessments were performed that prevented controlled pain levels, studies were completed among male and female patients ranging in ages 18-70 suffering from various advanced cancers, heart disease and dementia under hospice care [8]. Assessments were conducted using NRS and VAS pain scales within a six-month time frame at the Mayo Hospital Lahore to evaluate 180 patients’ pain

assessment and satisfaction with comfort using weekly tests [8]. The majority of male and female patients with an average age of 50, was disappointed that they were not asked enough questions about their pain, given adequate pain education, and was concerned that results were not reassessed regarding their pain levels [8]. Unfortunately, 68% of these identified patients were not assessed using a pain scale at all and had poorly managed pain control as a result [8]. Because of the lack of proper assessment and use of pain scales, education is needed regarding palliative care with a holistic approach to improve patient outcomes and controlled pain levels [8]. Research has shown that clinicians were not asking patients detailed questions at admission or during hospice care to evaluate their understanding of pain and control [8]. Questions presented to patients need to include physical and psychological aspects to treat their pain better based on changes to their daily activities and emotional health [8]. Adequate assessment and reassessment of pain led to a higher percentage of patients had improved pain relief and comfort [8]. Without education on using the assessment guidelines, such as a daily reviewed journal, functional aspects, or compelling reassessment, it is challenging to manage pain comfortably [8]. More questions about the patient’s pain intensity, how it is reassessed for better control, and how they are educated about the pain scale need to be addressed more often to complete a comprehensive pain assessment.

Patients dealing with advanced dementia and end of life care should be assessed regularly to be sure they are provided with quality and comfortable care [13]. Herr researched that pain assessments evaluated weekly through questionnaires will lead to evidence-based treatment where patients feel their assessment was applicable and adequate [13]. Weekly reassessments are crucial to developing an effective care plan since reassessments evaluate severity of pain, location and how it affects the patient’s psychological experience [13]. Assessments and reassessments documented in journals will reflect better communication on if comfortable pain levels are achieved and if effects the patient’s behavior [13]. Documenting weekly assessments in journals will inform on how pain affects daily activity of this identified population of hospice patients [13]. A holistic view of behavioral changes, ethical treatment of patients and if comfort levels are achieved can improve care plans developed for hospice patients.

The method and frequency of assessment influence the quality of pain assessment. As studied by Gordon, multidimensional assessment is necessary to adequately assess and rate pain levels during rest and activity [24]. Assessment and reassessment using a Clinically Aligned Pain Assessment (CAPA) tool gave a more comprehensive rating involving questions around PQRST [24]. Rather than just having 10 questions for the patient, categorized questions within the CAPA tool build a better communicative conversation between patient and nursing staff [24]. After studying more than 12,000 pain assessment observations of cancer patients

during a one-month trial, it resulted in improvements around correctly assessing and identifying pain levels using CAPA as opposed to just using unidimensional tools [24]. Unidimensional pain assessment tools, such as the NPRS and VAS, are limited to assessing only the presence and intensity of pain and were 42% effective compared to CAPA tool effectiveness of 81% [24]. With unidimensional tools, an individual's perception and pain tolerance are not considered, leading to inadequate assessment of pain and diminished quality of life [24].

Turk was able to research that unidimensional tools measures intensity of the patients', but do not consider the impact to function, relationships, emotional health, and quality of life [14] and lead to patient dissatisfaction with pain assessment. Using multidimensional tools originally developed and researched for cancer patients in hospice care, that rated mood, function, and quality of life effectively assesses pain on a physical and emotional level [14]. Documenting scores from mood, function and quality of life ratings on a daily to weekly basis shows how pain interferes with daily activity and how it changes on a week to week basis [14]. Reviewing that change in scoring will give clearer understanding of how the patient's function and emotional health is affected by pain. Pain assessment is not just a unidimensional assessment, but a holistic approach to comforting and controlling pain in the patient based on physical and emotional health [14].

Professional Standards for Pain Assessment in Hospice Care

Professional standards for pain assessment in hospice care have been developed by the Joint Commission [11] and Standards of Practice for Hospice Programs from the National Hospice and Palliative Care Organization [2]. The standards were established based on evidence-based results from Randomized Controlled Trials (RCT) that evaluated physical, emotional, and functional methods of pain in patients to complete adequate assessment [9,11]. The standard follows research and results gathered from RCTs that are substantial in collecting evidence while limiting biases of the tested population [9]. RCT research methodology is used towards a targeted population necessary to determine how a patient's physical function and emotional well-being are affected by pain; builds an understanding of pain levels and pain attitude using categorized questions; and establishes reassessment scoring based on side effects, new symptoms or applicable comprehensive assessment of the patient's psychosocial behavior [11]. This evidence-based method helps to understand processes used to assess pain in patients to reduce risk, pain intensity, and patient discomfort by accurately reporting pain and improving quality of life [2]. Standards of pain assessment encourage multidimensional tools that are reviewed regularly based on the patient's pain occurrence and understanding of assessment that leads to improved patient outcomes and pain control [2]. Following these standards of pain assessment using the PQRST method will improve patient

outcomes using proper pain assessment and treatment options [9].

Multidimensional Approach to Pain Assessment

A multidimensional approach to pain assessment involves the use of pain scales along with reviewing patients' emotions and psychological history to develop an adequate plan of care [19]. The multidimensional approach assesses how pain affects daily activities and how mental health has changed since diagnosing a severe illness [24]. A multidimensional approach evaluates a patient's description of pain and creates a holistic care plan focused on treating physical and mental effects of pain [9]. This approach assesses function, patient attitude, treatment effectiveness, and quality of life to evaluate the patient's overall experience of pain [7]. Unidimensional pain assessment focuses on pain scale ratings for immediate attention, but multidimensional assessment includes the long-term effects of despair concerning the patient's beliefs and past experiences [19]. Therefore, multidimensional pain assessment allows psychological treatment options and medicines to provide better outcomes with comprehensive care [14].

Without consistency in pain assessment that applies to the patient's holistic needs, patients will have lower satisfaction concerning comfort measures in hospice care [23]. Adequate pain assessment can improve patient outcomes and pain control based on comprehensive care and review of physical, emotional, and mental well-being to maintain quality of life.

A multidimensional approach to pain assessment is essential for hospice patients. Evidence demonstrates that a multifaceted approach diminishes stress and suffering when used with medical treatment for hospice patients [25]. Evaluating how a patient responds emotionally and mentally to pain will result in interventions applicable to the patient's pain level. These interventions include psychosocial and emotional assessments to review how a patient is coping with pain and how it affects their stress and relational levels, establishing open, trusting communication for patients to report their pain levels accurately. The multidimensional approach focuses on the patient's meaning of pain instead of just bodily symptoms, which would give inadequate assessment and treatment of pain control [25]. The approach would affect the patient coping mechanism and improve the quality of life.

Multidimensional Pain Assessment Tools

The use of multidimensional pain assessment tools will give the patient and the nurse a better understanding of what the patient is experiencing. The use of multiple methods for pain assessment results in increased patient satisfaction and reliable assessment of self-reported pain in patients [14]. There are three examples of multidimensional tools that have been studied in improving patient pain experience and outcomes such as the Patient-Reported Outcomes Measurement Information Systems (PROMIS), The

Brief Pain Inventory (BPI), and the Clinically Aligned Pain Assessment (CAPA) tools. The framework of these tools will be used in developing the Hospice Pain Assessment and Scoring tool.

The PROMIS tool, which measures symptoms, functioning, and quality of life, helps patients understand pain attitudes and the ability to control pain without being entirely dependent on medicines [23]. The PROMIS tool assesses a patient's physical, social and mental health through weekly reassessments to record changes in function and emotional aspects using journals to capture information [14]. It uses a comprehensive method to review symptoms, medical side effects, mood changes, and beliefs and how they affect intervention and treatment methods in patients [14]. The tool gives a better understanding of patient pain perspectives and how to improve outcomes by documenting assessments weekly. Journals record improvements and changes in patients' responses to pain assessment questions [14]. The PROMIS tool comprises several domains (fatigue, sleep, mood changes, patient's perception of quality of life, and social activity) to evaluate a patient's pain based on a five-scale system for each aspect [14]. Scores from each scaled element are compared to assess the severity and changes between behaviors to build effective communication between patients and clinicians [14]. The scores are the most practical assessment as they can scale and record multiple physical and emotional aspects and relate them to pain as it changes or improves weekly [14]. With over 2,000 scaled assessments and measurement results from a targeted hospice population with advanced serious illnesses, PROMIS is the most effective and accurate tool for determining pain intensity, control, and psychological changes in patients for improved assessment and outcome [14]. PROMIS has also been used with adolescent and cancer patients and hospice care as pain assessment was regularly evaluated to reduce pain intensity.

The BPI tool assesses how pain alters daily function. BPI mainly focuses on where the pain is located, the effects of pain medicine, and intervals of pain relief [14]. The measurement of pain intensity and if its spreads is determined by scale ratings from 0 to 10 that are assessed either daily or weekly [26]. BPI measures the physical effects of pain rather than a comprehensive assessment of physical and mental effects. Using a questionnaire format to rate pain and daily function among noncancerous patients, the form provides a daily examination of pain to achieve regular daily activity and social engagement [26]. Regular and adequate assessment of pain utilizing BPI is being used across cultures. It is beneficial in clinical pain assessment based on reliability and validity in treatment efforts and effectiveness in cancerous patients [27]. Based on the nine questions using pain scales rating of 0 to 10, BPI is valid among cancer and noncancerous patients with the assessment of over 250 patients to rate pain relief and effects to administer medicine as needed to achieve comfort [26]. How

pain changes social engagement and daily activities through daily reassessment determines how medications affect the body and response to evolving dosage amounts.

The CAPA tool is a comprehensive tool that measures comfort, changes in pain, changes in function, how the patient is sleeping, and the effectiveness of pain control. Multidimensional pain assessment tools such as the CAPA tool facilitate comprehensive care that evaluates the areas of care that need improvement to maintain the patient's comfort level [7]. The CAPA tool has no scoring but increases communication between the patient and nurse to gain a better perspective of the patients' overall pain experience rather than just intensity [24].

These assessment tools rely on a patient's report of their mental and physical symptoms and how it affects their function [14]. When pain only focuses on physical and bodily pain and is managed with increased medication, it is not an adequate pain assessment and avoids the underlying psychosocial symptoms [7]. Using a multidimensional pain assessment tool gives a clearer review of psychosocial aspects and the severity of pain based on a five-symptom emotional scale that provides an adequate assessment when evaluated weekly [14]. Patients are more forthcoming about their pain using multidimensional tools without feeling discouraged about reporting their pain control [14]. If patients think that pain will only be assessed with pain rating scales, they do not communicate effectively on comfort levels that relate to their psychological background [11]. Multidimensional pain assessment encourages reevaluation to provide better appropriate treatment, leading to improved patient outcomes and satisfaction [23].

Synthesis of Identified Topics

Inadequate pain assessment of hospice patients and using only a unidimensional approach to pain assessment have been identified as problems for hospice care facilities in effectively relieving pain [11]. The issues consist of a lack of utilization of standards of care and a lack of using multidimensional pain assessment tools to properly assess and treat pain [5,8]. Professional standards and recommendations from professional organizations support a multidimensional approach to pain assessment. The system can be accomplished using multidimensional pain assessment and evaluation tools, such as PROMIS, in the management of hospice care pain and patient satisfaction [14].

Overall Strength of the Evidence

There was overwhelming support for including multidimensional pain assessment tools for hospice patients. The peer-reviewed articles are notated as level one experimental research using the PROMIS tool for RCT evaluation [14,28]. With PROMIS producing valid results when reassessing pain and

function, it will also measure pain intensity among hospice patients while addressing their emotional and mental aspects [14]. Studies from Nadeem et al., Herr et al., and Gordon are considered level one since studies included evidence-based practices and assessments from experimental research and evaluated for hospice care patients to score changes in behavior, pain intensity, and function necessary to improve patient outcome and quality of life [28]. An additional article by Turk et al., detailed level two of evidence that produces a lesser quality of studies from unfiltered RCT on a controlled population that did not give the best quality results [29]. The literature review establishes that poor pain assessment mainly affects the function of hospice care patients with evidence obtained from RCTs and peer-reviewed articles, which gets firmly accepted as sources of information. A multidimensional approach can assess pain in hospice patients correctly to treat accurately, and document functional and behavioral changes that improve quality of life with pain control.

The overall strength of evidence supports improving pain assessment for hospice patients using a multidimensional approach.

Methods

Setting

The proposed DNP planned project will be developed for Aveanna Hospice. In the Birmingham, Alabama area, over 28,000 hospice patients will receive care at the facility or in their private homes for a minimum of 14 days [10]. The agency comprises licensed healthcare professionals that provide hospice care services in the comfort of the patient's home [30,31]. Patients that elect to have home hospice agree to have end-of-life care services in their home until the patient's end of life.

Population

The planned DNP project's targeted population is hospice patients diagnosed with terminal diseases, including various types of cancer, congestive heart failure, and dementia. The focus population will be 80 hospice patients with terminal cancer illnesses, congestive heart failure, and dementia ranging from ages 65-to 85, including male and female hospice patients receiving at least 14 days of care for proper pain assessment and behavioral changes. Pursuing further treatment would not be curative. The Hoover hospice clinical staff covers the West Jefferson demographic areas of Abernath, Bucksville, Bessemer, McCalla, Hueytown, Ensley, and Pleasant Grove.

Project Components and Plan for Future Implementation

An integral responsibility of the hospice nursing staff is to provide holistic care, which includes completing an objective assessment of the patient's level of pain. The intervention will be developed to properly assess and reassess the patient's pain levels to function, behavioral, and belief aspects. Holistic care improves

patient satisfaction and outcome based on proper assessment and relief methods included in medical care [10]. This assessment method is aligned with providing comprehensive care to address the physical, emotional, and psychological needs of hospice patients while assessing pain to include relief options besides medical prescriptions. It is essential to value patients and their understanding of pain to maintain quality of life and effective communication [10].

The planned intervention includes performing and documenting a standardized multidimensional pain assessment with scoring during every nursing visit. From the time of admission and throughout hospice care, assessments will be completed weekly to determine the patient's pain level and how it affects daily function and will be recorded in the patient's journal. A multidimensional tool based on the Clinically Aligned Pain Assessment (CAPA) and the PROMIS scoring tool will be developed in the project to assess the patient's pain experience. The Hospice Pain Assessment and Scoring tool (HPAS) is a new tool that will be utilized during planned routine subsequent visits where the patient's pain is reassessed to determine their comfort level and the effectiveness of pain management. HPAS follows the assessment framework of PROMIS and BPI regarding how often to assess patients, aspects to focus on and how to properly score the results. The multidimensional assessment tool will provide a more in-depth view of the patient's pain experience by asking nine survey questions concerning pain level; how pain is affecting mental health (such as thoughts of depression, low quality of life, or emotional disconnect); and how medicinal side effects are altering activities of daily living. These questions will also address functional aspects such as pain location, duration, and intensity; if the patient can tolerate the pain with scheduled pain medicines and if breakthrough pain medications are needed; changes in appetite or sleep patterns; and changes in social engagement [32-37]. The electronic scoring template will consist of a drop-down menu and an overall score of 18 or above prompts a pain intervention. The Registered Nurses and Licensed Practice Nurses will be educated on the purpose and use of the HPAS tool.

The timeframe for staff education and implementation of the HPAS tool will require 8-12 weeks of training, assessment, evaluation, and performance review. The first week will introduce a 30-minute training session during an in-service meeting to educate nurses on the purpose, use, and process of the HPAS tool for adequate assessment of hospice patients. The training will be conducted during the workweek based on the staffing schedules of nurses to teach based on the day and night shifts. The following four weeks will consist of assessing the patient's pain experience and scoring and conducting reassessments if needed within that time frame to relieve pain as reviewed and advised by the managing clinician. The next four weeks will require a review of patient surveys to ensure pain control is consistent and

reduces adverse effects on daily function and mental health. This information will be kept in a scoring database, such as the HPAS database, to evaluate changes in responses, pain scoring, and daily activities. Maintaining accurate scoring will better determine how specific methods improve or diminish the quality of holistic care and assessment. The third four weeks will assess patient satisfaction with pain management methods and communication with the nursing staff. The full 12 weeks will ensure that proper assessment during each visit is complete, evaluated with previous reviews to confirm improvement or adjustment, and understand the patient's perception of methods introduced and administered. The goal is to maintain the patient's quality of life by managing the patient's pain experience based on the patient's understanding of pain, function, and psychological background.

The staff will be educated on notating surveys for proper scoring, calculating scores to address negative changes, and evaluating scoring based on patient pain level, illness, and length of services. Score evaluations will be conducted by reviewing differences in responses of each category (function, behavior, and psychological) to understand the patient's understanding of pain and how it fluctuates every week [14]. Based on the number of occurrences for each response, a number scale from 1 to 4 will be associated with how many times the patient-reported loss of sleep, feelings of depression, changes in daily activity, etc., concerning their pain and comfort level [14]. The overall scoring will show either positive results to maintain or negative results that show areas of improvement [14].

All identified hospice patients that report uncontrolled pain levels while dealing with various cancers, congestive heart failure, and dementia during at least a 14-day period will be assessed by the assigned nursing staff every Monday regarding their pain levels and daily function. Only patients included in the planned project that has unresolved pain will be evaluated on Mondays to review the effectiveness of the HPAS tool. They will be reassessed one week later on the following Monday and as needed for any pain, mood, and daily function changes. Their pain level will be based on their assessment at admission and provide relief towards maintaining a comfortable, less severe pain level and experience. Depending on the patient, some will be reassessed more frequently or every day if relief from pain cannot be obtained or daily function has diminished. Once the assessment has been completed, scoring will determine occurrences of change in pain levels within the week. Based on the score, pain management methods will be administered to address the physical and mental needs of the patient. Once the patient has consistently managed a comfortable pain level, an evaluation will be done to determine the length of time, methods used, and level of patient satisfaction to obtain the acceptable pain level. This analysis will be used to improve assessment and treatment methods as needed to improve patient outcomes.

Hospice care staff will complete a post-education survey at the end of the 12-week project to evaluate the experience, advantages, disadvantages, and necessary adjustments to improve the HPAS tool. The objective is to analyze how comprehensive and holistic care improves patient satisfaction compared to only relying on pain intensity. The overall goal is to build a more uniform, standardized approach to pain assessment with holistic care to provide a better pain experience for hospice care patients.

Resource Requirements & Source

Materials and Technology

The technology required to implement the proposed DNP project will include a laptop with internet access and a projector for a PowerPoint presentation. The physical space needed to hold the meeting is the conference room reserved for the monthly staff meeting.

Funding Sources

The funding for the proposed DNP project will be no out-of-pocket expenses and will originate from the hospice organization. The resources needed to implement the project are a 30-minute educational in-service to introduce and train users on how to use the HPAS tool, a multidimensional pain assessment tool. The training session will take place at a future monthly staff meeting to avoid costs. If the meeting were to occur outside of a scheduled workday or after work hours, the price would vary due to each nurse's different hourly wages. There are five RNs to be trained at an average of \$33-\$36 per hour and two LPNs at \$25-\$28 per hour. The estimated maximum cost would be \$150.00.

Proposed Budget

The overall budget of the DNP Project proposal is modestly low in expenditure. The table below will show a material list that will demonstrate the need and what the estimated cost would entail. The project materials needed for this project are a part of office supplies and would come out of the education budget from the hospice organization.

Materials Needed	Projected Cost
Printer paper	Hospice organization (\$4.00)
Laminator sheets (50 sheets)	Hospice organization (\$6.00)
Training 7 Nurses for 30min	Hospice organization (\$150)
Reserve conference room	Hospice organization (\$0.00)
Total Project Cost	(\$160.00)

Planned Project Timeline

The proposed timeline activities will include staff education and training for all RNs and LPNs over one week before implementing the tool. The following two weeks will review compliance regarding usage and identify potential issues. The

proposed timeline to wrap up the implementation of the tool will be determined, post-staff education survey and patient outcomes will be completed and reviewed at the monthly staff meeting.

Plan for Evaluation

To evaluate the use of the HPAS tool, the hospice nurses will meet again at the monthly staff meeting at the end of the 12 weeks to complete post-education surveys and gain nurses' perceptions of using the multidimensional pain assessment and scoring tool. The post-survey questionnaire will pose questions to the nurses on the instrument, such as pros and cons of the agency, did completing the tool lengthen the time in the home, was the assessment effective in addressing all the patients' needs to ensure comfort, scored reflective action required if needed and did the tool improve the patients' overall pain experience by gaining a more holistic view on pain as it related to patient's quality of life.

Evaluating the effectiveness of the HPAS tool uses self-reported survey results that will be documented and scored using the modified multidimensional database for evaluation of pain relief and its improvements. The focus will be on function, behavior, and psychological aspects altered during various pain levels, determining how holistic care improves pain control, patient experience, and understanding how pain affects patients' quality of life. Patients will feel valued with proper assessment and attention to care based on their physical and emotional needs, improving patient outcomes (Turk et al., 2016).

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Questions	Patient Response	Patient Score
How comfortable are you?	0. Manageable 1. Minor discomfort 2. Very uncomfortable 3. Feel mostly pain	○ _____
How much has your pain changed?	0. The pain has gotten better. 1. Stayed the same 2. Has gotten better 3. Has gotten worse	○ _____
What is your mental state?	0. Engaging with others 1. Accepted situation 2. Feel devalued 3. Having suicidal thoughts	○ _____
Are you able to function?	0. Daily activities on my own 1. Some activities I need supervision 2. Moderate assistance with activities 3. Need help with all activities	○ _____
What is your sleep pattern?	0. Sleep throughout the night 1. Wake up more than once 2. Very little sleep 3. No sleep at all	○ _____
What is your appetite?	0. Normal eating pattern 1. Skip some meals 2. Only eat once 3. I have not eaten at all	○ _____

Do you communicate your pain?	<ul style="list-style-type: none"> 0. Tell nurse all pain symptoms. 1. Tell only some pain symptoms. 2. Only tell about pain if asked. 3. Do not tell about pain. 	○ _____
How do you feel during care?	<ul style="list-style-type: none"> 0. Feel valued 1. I feel like a burden 2. Feel neglected 3. Feel abused 	○ _____
How often are you reassessed?	<ul style="list-style-type: none"> 0. Routinely 1. Bi-Weekly 2. Several times a week 3. Daily 	○ _____
		Total Score _____

*HPAS Took Key: Each question has four responses ranging from 0-3 (mild to severe). The total possible points of the HPAS tool equals 27. Scores totaling 18, the nurse must perform an intervention, scores ranging from 10-to 18, monitor twice per week, and notify the clinical manager that the patient may be experiencing pain challenges. Scores of 0-9 are standard weekly pain assessment monitoring for hospice patients.

Appendix: Hospice Pain Assessment and Scoring (HPAS) tool.