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Staff Education for Identifying, Assessing and Managing Pain in Patients with Dementia

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This is to certify that the doctoral study by

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Abstract

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Pain is a common symptom in healthcare settings, especially among patients with Alzheimer's Disease (AD). AD patients have cognitive and communication impairment making it difficult or impossible for them to communicate their pain to their caregivers or healthcare practitioners. The purpose of this project was to implement a staff education program for healthcare professionals on evidence-based practices for assessing, recognizing, and managing pain in patients with AD. The practice-focused question explored if a staff education program on identification, assessment, and management of pain in patients with AD improve the staff's knowledge, skills, and attitude towards timely and effective pain assessment management. This project was implemented in a 50-bed nursing home. Fourteen healthcare staff participated in the education program. Data on the participants' skills, knowledge, and attitudes in assessing, caring, and managing pain in patients with AD were measured using the knowledge and attitude survey regarding pain (KASRP) tool. The KASRP score following the execution of the staff education program indicated an improvement in all areas. The mean score on the pretest was 28 (71.79% correct) and the mean score on the posttest 35 (89.74% correct). There was a significant difference in the score on the KASRP pretest ($m = 28$, $SD = 4.772$) and the KASRP tool posttest ($m = 35$, $SD = 2.680$) conditions, $t(27) = -12.11$, $p = .05$. These results suggest that training health workers on recognizing, identifying, assessing, and managing pain in patients with AD can enhance their skills, knowledge, and positive attitude in assessing and treating pain in this patient population and promote positive social change for patients, families, and caregivers.

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Section 1: Nature of the Project

Introduction

Memory disorders occur because of damage to the neuroanatomical structures of the brain, leading to limited storage, retention, and recollection of memories. Most memory disorders, like Alzheimer's disease (AD), are progressive, irreversible, and gradual, thus slowly destroying the brain cells and decreasing memory, thinking skills, and the ability to carry out simple day-to-day living activities and tasks. According to the Centers for Disease Control and Prevention (CDC; 2020), AD is currently ranked as the sixth leading cause of death in the United States. Though memory disorders are not a normal part of aging, statistics show that memory disorders are common in aging adults. About 40% of people aged 65 years and above are associated with memory impairment in the United States resulting in approximately 16 million people, with 1% of this population advancing to dementia each year (Alzheimer's Association, 2020). AD is the most common diagnosis of dementia in older adults (Alzheimer's Association, 2020; National Institute on Aging, 2019).

The mildest form of memory impairment is characterized by a self-perception of memory loss and a standardized memory test score that shows a decline in objective memory performance in older adults compared to younger adults (Small, 2018). As the memory loss problem advances, the person may enter mild cognitive impairment, which is a more severe form of memory loss and often involves a high level of memory deficit without functional impairment. The patient may live independently at this level even though they may exhibit objective memory impairment like mild AD. According to Small

(2018), 10% of people aged 65 and above in the United States have a mild cognitive impairment, and 15% of that group advances to AD each year. There is no clinically known cause for memory disorders, including AD, although the most cited reasons are age and vascular disease. As people age, they are at a higher risk of experiencing memory loss and developing AD. Though this disorder interferes with one's daily life, there is no known cure for AD. However, there are drugs to manage mild cognitive impairment which help to delay AD. There are also drugs available to manage AD symptoms and help patients cope with the condition, but they cannot cure the disease entirely.

It is common to find older people hospitalized across various healthcare settings with multiple health conditions also experiencing memory loss. More than 50% of residents in assisted living and nursing homes across the United States have some form of dementia or cognitive impairment, including AD. Sixty seven percent of dementia-related deaths occur in nursing homes (Shepherd et al., 2019). Torjesen (2020) conducted a research study on the diagnosis and hospitalization of dementia patients in the emergency unit in 2017 and 2018. This study collected data on dementia patients from the national statistics and found that 237,881 of the 435,600 people diagnosed with dementia in 2017 and 2018 were admitted to the emergency unit at least once a year. More than half of people with dementia are admitted more than once a year. Therefore, admission and hospitalization of people with dementia for various health conditions are common. Besides, research shows that people with dementia are more frequently admitted to hospitals than those without dementia due to the high risk of physical injuries, mental suffering, and limited independent living and functionality (Bickel et al., 2018; Shepherd

et al., 2019). As such, healthcare practitioners across multiple health settings are likely to encounter, care for, and manage pain in patients with AD.

Pain is a common symptom of underlying conditions. Therefore, pain ranging from moderate to severe is commonly experienced by patients suffering from and hospitalized for various health conditions across various healthcare settings. People with AD may experience pain for the same reasons as everyone else. However, dementia is common among older adults who face declining immunity and thus have a high risk of suffering from various health conditions and being hospitalized. AD patients have a higher risk of hospitalization because they have trouble managing any existing medical conditions, such as taking medications as scheduled or alerting caregivers and healthcare practitioners when they experience new severe symptoms. Pain in patients with AD is a complex issue. Often these patients suffer from the common causes of acute and chronic pain, while some also have neuropathic or nociceptive pain. Due to cognitive impairment among people with AD, it becomes difficult for them to recognize, report, and communicate about their pain to caregivers and healthcare practitioners. Their declining brain function and cognitive abilities make them unable to speak to others about their pain. As a result, pain is usually underrecognized and undertreated or undermanaged. As a result, this leads to reduced quality of life, affecting the well-being of patients with AD as they experience pain, suffering, and discomfort (Husebo et al.,2016)

Knowledge of safe and effective pain assessment and management among patients with AD by healthcare practitioners is essential in providing suitable pain treatment, relief, and intervention (Husebo et al., 2016). Lichtner et al. (2016) found that

caregivers' absence of pain assessment and management skills is a significant hindrance to better pain control among patients with AD. In addition, the pain assessment procedure in patients with AD must be accurately and professionally done (Lichtner et al., 2016). Healthcare staff generally rely on patients' self-report of pain. For patients with AD, communication can often be difficult or nonexistent, and pain will go unreported. Therefore, there is a need for an efficient method of eliciting and centralizing all pain-related information for patients with AD to ensure effective and timely pain treatment and relief among this highly vulnerable population group (Lichtner et al., 2016).

Recognizing pain in people living with AD is described as a guessing game by many healthcare providers (Achterberg et al., 2020). A patient's breathing, vocalization, facial expression, body language, and inability to be consoled are some of the indicators of pain in patients with AD (Lichtner et al., 2016). Unfortunately, patients with ADs, especially those residing in nursing homes, are often unable to communicate pain (Boyd et al., 2019). As a result, health care providers in these facilities may not have the knowledge and skills to identify pain in this compromised population (Achterberg et al., 2013: Boyd et al., 2019). As such, it is critical for nursing staff in nursing homes to have evidence-based education on assessing and managing pain among patients with AD. This project or program educated healthcare providers on evidence-based tools and interventions for assessing pain among patients with dementia or any cognitive impairment that prevents them from effectively communicating their pain experience and levels. Properly implementing a nurse education program on comprehensive pain assessment and management among patients with AD would help reduce the likelihood

of patients experiencing unrecognized and untreated pain that, when untreated, leads to poor quality of life and increased pain and suffering. This project aimed to promote positive attitudes towards managing pain and enhance the nursing staff's knowledge base, skills, and competency in managing pain among patients with AD. Also, this project will help improve the quality of care that nurses provide to patients with AD and, consequently, improve the quality of life, wellbeing, and comfort of patients with AD admitted in nursing homes by reducing the rate of unrecognized and untreated pain. This project has the potential to change how pain is viewed, perceived, assessed, and managed by nursing home staff caring for patients diagnosed with AD and provided evidence to support the efficacy of the educational program implemented. As such, the frequent implementation of staff education programs to improve nursing staff's knowledge, competence, and attitudes regarding assessing and managing pain in patients with AD is supported by this project.

Problem Statement

Pain is one of the most frequent and common symptoms in older adults. It severely impairs their quality of life and increases their delirium risk. In patients with dementia, pain progresses the condition making it move quickly from mild to severe (Agit et al., 2018; Bullock et al., 2020). Performing pain assessment by taking anamnesis from patients is unreliable when caring for patients with dementia because of their reduced cognitive abilities, cooperation, and communication. In particular, patients with AD in nursing homes frequently experience prolonged hours of suffering due to a lack of effective pain recognition, assessment, and control.

Nurses and care staff in nursing homes experience the challenge of assessing and managing pain in patients with AD or dementia. Lack of adequate knowledge on pain assessment and management may result in unfriendly ways of pain assessment of patients with chronic illnesses worsen or even the failure to manage pain better to the suffering patients. In most instances, patients with dementia tend to endure pain due to the illnesses and are reluctant to get relief for the condition (Thorpe et al., 2017). Thorpe concludes that most of the patients with dementia in the United States are not pleased with how the caregivers identify and assess pain. The global prevalence of chronic pain is approximated to be between 25% and 50% among aging populations in the aged in the community and 80% among aging people in nursing homes. The prevalence of chronic pain in most patients with dementia increases with age and is said to reach the plateau stage around 70 to 75 years (van den Beld, 2018). As Agit et al. (2018) discussed, pain is not rare in patients with dementia. Sometimes patients with AD are not usually capable of reporting pain and expressing it adequately, especially if they are in advanced stages of dementia or the pain itself. It is the responsibility of the nursing team caring for them to recognize, assess, manage, and treat the pain. Hence, objective pain assessment and management in patients with dementia should be a routine that nurses understand well and have great experience and knowledge in.

Pain in AD patients can be exceedingly difficult to assess (Achterberg et al., 2020). The prevalence of chronic pain in most patients with dementia increases with age and reaches the plateau stage around 70 to 75 years. Competent pain assessment is a prerequisite for good pain identification and ideally considers several pain dimensions,

namely intensity, location, affect, cognition, behavior, and social accompaniments (van den Beld et al., 2018). Pain is usually signaled by verbal communication, which becomes increasingly deteriorated in people with AD. As communication decreases, so do the inability for self-report (Achterberg et al., 2020; Malotte & McPherson, 2016). Therefore, those responsible for pain identification in these patients need to be adequately informed at the least about the presence and intensity of the pain (Achterberg et al., 2020).

Untimely recognition and assessment of pain in patients with dementia lead to ineffective pain management and control, ultimately affecting the patient's quality of life. As a result, healthcare stakeholders, especially in units and settings caring for aged populations, are pressed to develop solutions to ensure effective pain assessment and management, especially among patients with AD. This challenge has been getting significant attention across healthcare settings, especially at nursing homes.

This project involved educating staff in a nursing home on the evidence-based practices for recognizing, assessing, and managing pain in patients with AD. The staff education program aimed to improve the quality of care and improve patients' quality of life, wellbeing, and comfort by educating nurses on the best practices for pain recognition, assessment, and management in patients with AD.

Purpose Statement

The purpose of this evidence-based project was to develop and facilitate a staff education program on some of the most current and convenient practices of identifying, assessing, and managing pain in patients with AD. The staff education program presented practical and professional ways of evaluating and managing pain in patients with

dementia in more conducive means and using evidence-based pain assessment tools and practices. The program also incorporated pharmacologic and nonpharmacologic pain treatment and management interventions. Pain is one of the most challenging symptoms for healthcare providers to assess and treat. This is because the nature of acute or chronic pain differs from one patient to another, depending on the magnitude of the individual's pain and health status. Pain is also subjective; healthcare providers understand its seriousness or magnitude based on patients' expression and communication about pain levels. The fact that health care providers have not had a dependable means of quantifying pain makes it more challenging to identify and manage (Sinclair et al., 2017). Recognizing and assessing pain becomes even more difficult in patients with dementia due to limited cognitive and communication abilities making it difficult to express pain experience and level to their caregivers or nurses.

The gap in practice at a long-term care facility was the lack of effective pain control management and the lack of adequate foundational knowledge, skills, and competencies by practitioners on assessing and managing pain in patients with AD. Changes in a patient's ability to communicate verbally present special challenges in treating pain. Unrelieved pain can have profound consequences, including declines in physical function and diminished appetite, and even mortality to the patient with this diagnosis (Horgas & Miller, 2008). The purpose of this project was to educate care staff or nurses in nursing homes on best practices for identifying, assessing, and managing pain in patients diagnosed with AD. This project addressed the existing gap by equipping nurses and other healthcare professionals in the selected nursing home facility with

knowledge and skills for correctly and effectively assessing and managing pain in patients with AD using evidence-based practices, tools, and interventions. The practice question that guided this project was: Will a staff education program on identifying, assessing, and managing pain in patients with AD improve the staff's knowledge, skills, and attitudes towards timely and effective pain assessment management and enhance patients' pain outcomes?

Nature of the Doctoral Project

This project involved implementing a staff education program for healthcare professionals in the selected site on identifying, assessing, and managing pain in a patient with AD and other memory disorders. The project was implemented in a 50-bed nursing home. It was designed to educate staff who work directly with patients admitted to the facility. The staff was responsible for observing, assigning, and treating patient symptoms such as pain, skin sores, and others to improve patients' quality of life, outcomes, and well-being. To execute this evidence-based practice project, a buy-in from the entire professional workforce in the health facility was necessary. Direct care staff, such as RNs and NPs who work in nursing homes, are responsible for providing care to patients, especially to the elderly ones. As such, direct care staff needed to have the necessary education on pain identification, assessment, management, and treatment for patients with AD. The essential pain treatment and management skills are paramount in taking care of both aging and dementia patients. CNAs and LPC also needed to have the necessary knowledge and skills in pain management. CNAs are the immediate aides of nurses, and their primary role is to ensure patients' comfort in healthcare facilities (Van

Houtven et al., 2020). Physicians are responsible for prescribing various pain

management to control and treat pain, as well as identify optimal pain management

interventions. Hence, pain control and management are a collaborative practice that

requires teamwork. All stakeholders needed to participate in the staff education program

to ensure they are prepared to identify, assess, and manage or control pain in patients

with AD.

　　This project involved educating the outlined staff or stakeholders to assess and

manage pain in patients with AD. Before the staff education program was implemented,

the staff's pain assessment and management skills, knowledge, and attitudes were

evaluated using a data collection tool known as knowledge and attitude survey regarding

pain (KASRP) tool that was developed by Betty Ferrell and Margo McCaffery in 1987.

The project then involved educating staff to assess pain levels, outcomes, and experiences

of patients with AD using the Pain Assessment in Advanced Dementia Scale (PAINAD),

developed by Victoria Warden, Ann C. Hurley, and Ladislav Volicer in 2003. Staff

participants were also educated on techniques for managing and controlling pain in

patients with AD. After the staff education project was implemented, the staff's pain

assessment and management skills, attitudes, and knowledge were re-evaluated to

determine if there was any significant improvement and also to assess if the project was

effectively and successfully implemented. Therefore, this project involved a pretest and

posttest data collection and evaluation to determine the effectiveness of implementing the

staff education project on identifying, assessing, and managing pain in patients with AD.

The purpose of this evidence-based project was to develop and facilitate a staff nurse education program on some of the most current and convenient practices of identifying, assessing, and managing pain in patients with AD. Pain assessment and management skills are, therefore, needed and are of great importance to all healthcare workers. The education program was designed to incorporate evidence-based pain assessment and management interventions in patients with AD. This helped to ensure that the care staff in the selected facility increased their knowledge, skill, and positive attitude to using evidence-based practices and interventions to identify, assess, manage, or control pain patients with AD.

Improper pain identification in patients with dementia has been well highlighted due to its adverse effects on patient treatment. Pain management in patients with AD coverage has been significant in all healthcare provider facilities to improve the number of patients seeking medical attention. Local and federal government bodies have also begun monitoring and cautioning healthcare providers who do not follow appropriate pain identification, assessment, and treatment procedures. As a result, healthcare providers are inclined to use and are open to other convenient ways of pain assessment and managing in patients with AD (Gordon et al., 2019)

Significance

Multiple stakeholders benefitted and will continue to benefit from the implementation of the staff education programs on identifying, assessing, and managing pain in patients with AD. Stakeholders include the patients with AD and their families, nursing staff, physicians, and caregivers at the facility. Healthcare staff at the selected

facility, including nurse practitioners, registered nurses, licensed practical nurses, assistant nurses, and physicians, benefitted from this education program by gaining increased knowledge and competencies on pain assessment and management in patients with AD (see Aasmul et al., 2016; Van Houtven et al., 2020). Educating all healthcare practitioners or direct care staff on pain identification at nursing homes or long-term care facilities can improve nursing practice by equipping the team with knowledge, skills, and competencies to provide quality care and improve patient outcomes. Patients with AD also benefitted and will continue to benefit from this project by receiving improved services from staff who now have enhanced skills and positive attitudes towards effective and timely assessment and management of pain in patients with AD. This project will help improve comfort in patients with AD and ensure optimal prescription of pain medication to this patient group by eliminating unnecessary prescription for pain medication when not needed or inadequate titration of pain medication when the patients with AD require more. Sometimes patients with AD may seem uncomfortable and be mistakenly prescribed pain medication when at times they may not be in pain but experiencing restlessness and agitation. This staff education will help care providers gain knowledge and insight on identifying, assessing, and treating pain and differentiating patient discomfort due to pain from discomfort caused by other factors.

This project was crucial to improving nursing practice. The nursing practice will improve by educating the nursing staff alongside the other healthcare professionals on current and evidence-based practices on pain assessment and management in patients with AD. Over 35 million people worldwide have dementia, and 50% of them experience

recurring pain (Achterberg et al., 2013; Achterberg et al., 2019). Nevertheless, current assessment and treatment of pain in this patient group is inadequate, which leads to a high level of discomfort and distress caused by pain among people with AD. This project helped increase knowledge on pain assessment among staff in the selected facility. Once the project is completed, published, and disseminated, it will improve knowledge and skills on pain assessment and management among nurses across different health care settings worldwide. This project will be helpful to nurses and care staff in long-term care facilities and nursing homes and other settings such as postoperative and acute care.

The staff education program will bring positive social change by improving care across the healthcare sector, thus improving caregiver, family, and patient satisfaction. The results from this project will guide the management in other nursing homes, long-term care facilities, and other healthcare settings on implementing staff education programs to educate care staff and other practitioners on identifying, assessing, and managing pain in patients with AD. Pain assessment and management in older people is a complex challenge. It even becomes more complicated when the older person has dementia. This project will lead to a positive social change by informing the development of a decision support tool to improve recognition, assessment, and management of pain in patients with dementia (Lichtner et al., 2016).

The need for increasing staff knowledge on pain management in individuals with AD is global. The population of older people across the world has been increasing over the past decades and may be attributed to improvement in healthcare whereby more people can live longer due to better and highly accessible health care services. According

to Achterberg et al. (2019) and Gordon et al. (2019), the aging revolution is changing today's society's composition whereby more people live to the advanced age bracket of 65 years and over. Hence, this staff education program on pain recognition, assessment, and management in AD patients can improve the quality of care offered to older people with dementia in long-term care facilities and nursing homes beyond its initial implementation at one site of care. Older people make a significant component of society. Improving the quality of care provided to them and improving their comfort and wellbeing is a positive social change.

Summary

Pain is a pervasive symptom, especially in older adults who experience various health challenges. With an increasing population of older adults globally, there is an increased number of older people with dementia. Managing pain in patients with dementia or AD is a complex challenge due to deterioration in communication and cognitive skills. Hence, healthcare practitioners must possess the right skills, competence, and knowledge and have a positive attitude towards identifying, assessing, and managing pain in patients with dementia.

Section 1 introduced the nature of this project, the purpose, and the practice question. The practice question that guided the project was: Will a staff education program on identifying, assessing, and managing pain in patients with AD improve the staff's knowledge, skills, and attitude towards timely and effective pain assessment management. Section 2 will explore the model framing this project, the evidence

supporting the project, the local background, and context, the role of the DNP student, the

role of the project team.

Section 2: Background and Context

Introduction

Inadequate knowledge, skills, competence, and lack of a positive attitude towards assessing and managing pain in patients with memory disorders such as AD have led to the suffering of many patients in nursing homes, long term care facilities, and across various healthcare settings in America and the world (Dahlhamer et al., 2018). Most states cannot address pain management in their healthcare policies, making pain management a grave public health issue (Dahlhamer et al., 2018; US Department of Health and Human Services, 2019). The significant contributor to the pain management crisis is the healthcare practitioners who are not well informed and skilled in pain management, especially on patients with AD. A significant number of healthcare professionals do not have the necessary and required skills or knowledge to assess pain in patients with dementia. Furthermore, most healthcare organizations do not have practice guidelines on effective and appropriate pain assessment, management, and treatment in their facilities (Al-Mahrezi, 2017). Most facilities do not frequently educate their staff on pain management, thus making access to effective pain treatment practice a challenge for different patient groups, especially patients with AD (Lohman et al., 2010). The purpose of this evidence-based project was to create with a nurse education program using the most current and convenient evidence-based practices of identifying, assessing, and managing pain in patients with AD. The staff education program presented practical and professional ways of assessing pain in patients with dementia in more conducive means and using evidence-based pain assessment tools and practices. The goal of this project

was to educate the staff on essential and evidence-based practice knowledge and skills of

assessing and managing pain in patients with dementia. The practice question that guided

this project was: Will a staff education program on identifying, assessing, and managing

pain in patients with AD improve the staff's knowledge, skills, and attitude towards

timely and effective pain assessment management. Section 2 of this project discusses the

concepts, theories, and models, relevance of this project to nursing practice, local

background and context, the role of the DNP student, role of the project team, and

summary.

Concepts, Models, and Theories

The theories used in directing the project were Watson's theory of human caring

and Kolcaba's theory of comfort. These two theories are relevant to this project because

they support the implementation of this project in one way or another. Watson's (1997)

theory of human caring is used to steer and facilitate the learning process, emphasizing

the interpersonal process between caregiver and care recipient. Kolcaba's (1994) theory

of comfort emphasizes that comfort is a fundamental need for all human beings and

encourages nurses and other healthcare practitioners to relieve, ease, and eliminate

patients' discomforts, pain, and stressful situations through patient-centered care.

Additionally, Lewin's change model was used because it summarizes three steps to

effective organizational change (Lewin, 1947). These three models, theories, and

concepts build on each other by supporting health practitioners' education or learning,

focusing on improving patient comfort through easing or relieving pain, and supporting

organizational change following the staff education program to cement evidence-based practices for assessing and managing pain in patients with AD.

Watson's theory of human caring was developed by Jean Watson and emphasizes the need for care that leads to the regeneration of life energies and potentiating one's competencies (Slade & Hoh, 2020). According to Watson (1997), the fundamental or core concept of the theory of caring is that humans cannot be treated as objects and cannot be separated from self, other, nature, and the larger workforce. This theory addresses how nurses care for their patients in a holistic approach. The theory of human caring is infused into four major concepts: human beings, health, environment or society, and nursing (Watson, 1997; Wojciechowski et al., 2016). Human beings refer to the valued person(s) who is(are) to be cared for, nurtured, respected, understood, and assisted as a precious and fully functional integrated self (Pajnkihar et al., 2017a). Health is defined as the highest level of physical, mental, and social function characterized by adaptive maintenance of daily function, absence of illness, and processes and efforts that aim to lead to absence of illnesses (Pajnkihar et al., 2017b). Caring is demonstrated and practiced by nurses. Nurses' caring attitudes are not transmitted from generation to generation but rather through the culture of the nursing profession and as a way of coping with the environment.

The human caring theory concerning the nursing profession explains that healthcare workers should honor all the patients' bodies, minds, and spirits. Healthcare professionals have sacred interaction with patients that translates into transpersonal moments of caring. Watson's theory of human caring guides healthcare facilities and

workers in implementing projects for positive change. According to this theory, the positive impacts of caring are immeasurable and propel healthcare practitioners to achieve self-actualization both professionally and personally (Alligood & Marriner, 2013). The human caring theory is applied in significant healthcare service delivery settings to identify and manage dementia patients' pain.

Watson's theory positively impacts the nursing profession by explaining the importance of addressing the needs of the patients. The theory categorically emphasizes the need for giving patients the utmost holistic care (Aghaei et al., 2020). The discipline and practice of nursing are quite demanding and involve service delivery to patients. To make the research impactful, there is the need to apply Watson's theory of human caring which will guide the healthcare practitioners to realize the need to initiate social and better handling skills for AD patients with different pain types. The theory has a positive impact on the nursing profession, science, and nursing practice. The program's intended purpose, equipping healthcare professionals with knowledge, skills, and positive attitudes for better pain assessment and management of patients with AD, has been made possible by Watson's theory of human caring. The staff integrated the culture of the nursing profession to provide holistic care to human beings to promote health and eliminate illness, in this case, pain in patients with AD.

Kolcaba's theory of comfort developed in the 1990s by Katharine Kolcaba Kolcaba's theory of comfort explains comfort as a fundamental need of all human beings for relief, ease, and transcendence arising from stressful healthcare situations (Kolcaba, 1994). The theory of comfort emphasizes healthcare practitioners promoting patient

comfort through their nursing practice, experience, and culture to promote patients'

positive health-seeking behaviors. Kolcaba's theory of comfort is summarized in four

major concepts or elements, which are the main focuses for nursing practitioners to

pursue and ensure comfort for their patients. These components or elements of providing

comfort include physical, psychospiritual, social, and environmental aspects (Kolcaba,

2003). Kolcaba developed her theory of comfort from Watson's theory of human care and

her practice as a nurse, discussed in the paragraphs above. Hence, these two theories are

related. They were valuable in supporting the implementation of the staff education

program on effective practices, skills, knowledge, and attitude in assessing and managing

pain in patients with AD in the selected facility.

  According to Kolcaba's theory of comfort, nurses must provide holistic care

which promotes patient wellbeing and comfort in all areas of human life, including

physical, spiritual, social, psychological, and environmental (Kolcaba, 2003). Hence,

when caring for patients with AD and other memory disorders, nurses must be concerned

with the patients' comfort by effectively and appropriately assessing, managing, and

treating pain. Since patients with AD cannot communicate about their pain effectively, it

is the responsibility of nurses and other healthcare practitioners directly involved in

caring and providing healthcare services to these patients to recognize, assess and

manage pain. Their main goal is to enhance comfort and quality of life while reducing

suffering, pain, and tension from stressful situations or unmet healthcare needs. The main

goal of providing holistic care based on a comfort care plan is to enhance patients' and

their families' comfort, thus triggering a conscious and unconscious improvement in

health-seeking behaviors. The implementation of this staff education program was supported by Kolcaba's theory of comfort. The project's focus was to improve patient comfort by ensuring timely, effective, and appropriate assessment and management of pain is part of the holistic care for patients with AD and other cognitive and memory disorders.

<div align="center">**Relevance to Nursing Practice**</div>

Dementia and Pain among Older Adults

Pain in older adults with dementia is increasingly recognized as both under-assessed and undertreated. Research studies have shown the existence of gaps in nursing knowledge and inaccurate beliefs about pain in people with dementia which calls for further education by healthcare practitioners to address and close these gaps. There is currently an increase in the number of people with dementia, whereby over 35 million people worldwide have dementia. This number is expected to increase to 115 million by 2050 (Achterberg et al., 2019; Chandler & Bruneau, 2014). Though dementia is not a condition for older people only, it mostly affects people in this age group. There have been growing numbers of older people in the world population. Today, more people can expect to live into their sixties and beyond due to improvement in healthcare services, thus prolonging life. According to WHO (2018), between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%. According to WHO population estimation report in 2018, by 2020, the total number of the world's population for older people aged 60 years and older was expected to outnumber children younger than 5 years, though this may have been affected by the increasing deaths of

older people due to the current COVID-19 pandemic. Generally, the population of older

people aged 65 years and above is expected to continue increasing. This calls for better

patient-centered healthcare services for older people across the world.

Since dementia is more prevalent in older people, an increase in the population of

older people automatically increases the number of people with AD and other cognitive

and memory disorders. More specifically, over 5% of people aged 65 years and above

have AD, and over 50% of people aged 90 years and above have AD (Achterbergetal et

al., 2019). The increasing number of the older population and people with dementia

increases pressure for the healthcare sector to provide quality care to this population

group. Pain is common in older people. According to Chandler and Bruneau (2014), the

prevalence of pain in older people living in the community is between 25-50%, while the

prevalence of pain in older people living in nursing homes and long-term care facilities is

between 30 to 49%. Also, according to Achterberg et al. (2019), the prevalence of pain is

high among people with dementia, with a 72% prevalence of pain among people aged 85

years and above.

Barriers and Challenges to Management of Pain in Dementia Patients

Research has shown that older people with cognitive impairment, including those

with AD or dementia, face an increased risk of unmanaged and unrelieved pain (Bullock

et al., 2020; Kadivar et al., 2017). They are vulnerable to inadequately assessed and

managed pain due to communication problems, challenges, and barriers emanating from

their decreased cognitive, coordination, and communication abilities (Bullock et al.,

2020; Monroe et al., 2015). Therefore, ineffective communication or communication

problems are the utmost significant challenges and barriers to pain management among patients with AD. As their dementia worsens, these patients may not always be able to report their pain to caregivers and nurses; hence sometimes, they suffer for long without people caring for them recognizing.

Other barriers and challenges to pain assessment and management among patients with AD include lack of recognition due to lack of documentation (Bullock et al., 2020). Nursing staff in nursing homes, long-term care facilities, and other healthcare settings may ignore patients' pain because this symptom is rarely undocumented and can only be recognized if expressed by patients. Sometimes, people with dementia may exhibit behavioral manifestations of restlessness which may be misunderstood by healthcare staff as emanating from other factors such as patient discomfort and emotional distress rather than physical pain. As a result, these patients' pain is underdiagnosed or misdiagnosed, which leads to undertreatment. According to Chandler and Bruneau (2014), despite people with dementia and other memory disorders having the same risk or vulnerability to pain (if not higher), they usually receive fewer pain medications than their cognitively integral counterparts.

Monroe et al. (2015) also note that many staff working in nursing homes and long-term care facilities face the challenge of managing and treating pain residents. This is because patients with different health conditions are chartered in these settings, including a high percentage of psychiatric conditions where more than half of the patients have some form of dementia and behavioral symptoms of dementia (BSD), which mimic behavioral displays of pain (Monroe et al., 2015). Nevertheless, more than two-thirds of

patients in nursing homes and long-term care facilities have some form of pain. Sometimes nursing staff may confuse the behavioral manifestations as being treated to dementia, BSDs, or cognitive illnesses and fail to recognize them as pain symptoms in the patient. This puts patients with dementia and other cognitive illnesses at high risks of poor pain recognition, assessment, and management. Therefore, it is critical for care staff in these facilities to have broad foundational knowledge and skills to identify and alleviate pain in patients with AD.

The lack of pain assessment and management standards in many nursing homes is also a significant challenge to pain treatment among patients with AD and other memory disorders. Karlsson (2015) found out that three-quarters of nursing homes do not use standard pain assessment tools. Besides, many nursing homes and long-term care facilities lack consistent standards for pain assessment and management. According to AMDA, the American Medical Directors Association for Post-Acute and Long-term care, pain assessments should be done on admission and periodically after that for effective and appropriate pain assessment and management (Evans & Mixon, 2015). Negative attitudes and beliefs about dementia can also be a substantial barrier to effective pain management. Staff may not have the right attitude or knowledge on pain assessment and treatment among patients with AD. A staff education program can help set standards and practice guidelines for effective pain assessment and management among patients with AD in nursing homes and long-term care facilities. This is also effective in improving knowledge, skills, and positive attitudes towards pain assessment and management.

Overcoming Barriers to ineffective Pain Management

Inadequate pain management in patients with AD and other memory disorders has been a prolonged healthcare issue that needs to be well analyzed in the nursing profession (Karlsson, 2015). The subject has prompted government agencies and healthcare providers to develop practical measures and get solutions to the poor pain management menace (Evans & Mixon, 2015). Local and federal government bodies have also begun monitoring and cautioning healthcare providers who do not follow appropriate pain identification and assessment procedures and tools. As a result, healthcare providers are inclined to use and explore pain assessment methods in patients with dementia (Gordon et al., 2019). Documented research by Koppitz et al. (2017) has also encouraged addressing the low pain identification and management of patients with dementia. Pain management in most healthcare delivery facilities in the United States has not been well dealt with, making some of the ailing individuals reluctant to get health care since pain handling is not friendly and convenient.

The involvement of nurses in the healthcare industry and pain management has been limited. Nurses have not been better positioned to decide and contribute to the patients' prescriptions or even drug scheduling (Hayes & Gordon, 2015). The nurses are mainly subjected to dealing with the inpatient department, making it challenging for them to get enough skills and adequate working conditions for other outpatients like pain identification on patients with dementia. However, nurses have gone ahead and had an extension of their roles in recent times to make decisions concerning their patients, specifically pain management. As a result, equipping the nurses with better pain

management skills on patients with dementia can significantly improve the patients' well-being, experience, and outcomes. Besides, it also enhances nurses' satisfaction. It reduces their mental suffering by enabling them to be better positioned to help their patients and reduce their patients' physical and emotional distress.

Pain identification and management procedures for patients with AD have changed in recent times. There have been poor pain identification skills among the nurses taking care of patients with pains related to dementia. Inadequate pain identification has left millions of Americans with dementia medical conditions suffering. With only 15 states being well equipped and prepared in pain identification, most American health facilities need to address the issue more seriously (Ung et al., 2016).

The primary issue hindering proper pain identification in patients with dementia is that most professionals do not have adequate education to handle and identify pain in patients with dementia. Most healthcare facilities are also unable to take care of the large number of patients seeking their services. Malotte and McPherson (2016) recommend using the several available evidence-based tools for pain identification and assessment. However, using these tools in isolation is insufficient to manage and treat pain in patients with dementia adequately. Healthcare providers must also have the knowledge and skill to combine these tools with their nursing experience to screen for and treat potential pain. They should incorporate self-report, screening, searching possible causes for the pain, observing patient behavior, and attempting appropriate analgesic trials to improve patients' pain outcomes.

Staff Education to Improve Pain Management in Patients with AD

   Healthcare staff needs continuous education to improve their skill, competence, and foundational knowledge on various aspects of clinical and nursing care. Pain management is an integral aspect of care. Thus, nurses and other healthcare practitioners need to be educated on pain assessment and management practices to enhance their skills and knowledge and improve their attitudes towards caring, assessing, and managing pain in patients with AD and other memory disorders.

   Deldar et al. (2020) conducted a research study to determine the effectiveness of continuing nursing education in using the observational pain assessment tool. The research study was conducted in two intensive care units and involved 70 nurse participants. This study revealed that both lecturer format and social networking app format of conducting continuing nurse education on pain assessment and management were effective. The research study results showed that nurses' performance scores in pain assessment and management improved undergoing continuous education using the two formats even though the social networking app led to more improved pain diagnosis and management.

   Romero-Hall (2014) also acknowledges that nurses must understand patients' pain experience and management strategies clearly. However, the main barrier to proper pain assessment and management practices in different healthcare settings is the lack of knowledge by healthcare staff. A research study by Jonsdottir & Gunnarsson (2021) explored nurses' knowledge and attitudes towards pain assessment and management in older people with dementia. It revealed that nurses' foundational knowledge, skills, and

attitudes improved with education on pain management. The evidence-based staff education project on pain assessment and management in patients with AD will equip care staff with knowledge and skills to improve their practices in identifying, diagnosing, and treating pain in patients with AD and other memory disorders.

This project will push healthcare providers to develop better skills, knowledge, and positive attitudes towards observing, recognizing, assessing, diagnosing, managing, and treating pain in patients with dementia. As a result, many healthcare practitioners with better pain identification, assessment, and management skills will improve. The number of patients with pain linked to dementia seeking medical attention will rise.

Local Background and Context

This project on staff education program was implemented in a selected nursing home located in a large urban area in the Midwest. The selected facility is a 50-bed facility. There were 50 patients admitted at the facility with 19 patients diagnosed with AD by the time of completing this project. There were ten permanent staff: eight nursing staff and two physicians working in the facility. This project involved delivering a staff education program on recognizing, assessing, and managing pain patients with AD. This evidence-based project is aimed at equipping the staff with basic and practical knowledge to recognize, assess and manage pain in the vulnerable population effectively and adequately. This project also aimed at closing the gap on limited knowledge, competence, and negative attitude towards assessing and managing pain in patients with AD. Consequently, this project had the potential to decrease the general pain levels in patients with AD in the selected nursing home or facility.

Tools to Measure Pain and Staff Knowledge and Attitudes

This project involved training or educating care staff in the selected facility on practical assessment and management of pain in patients with dementia. It included assessing staff's knowledge, skills, and attitudes towards assessing and managing pain in patients with dementia before (pre) and after (post) implementing the staff education program. This pre-and post-intervention evaluation was conducted using the Knowledge and Attitudes Survey Regarding Pain (KASRP), a 37-item questionnaire. It contains 21 true or false questions and 16 multiple-choice questions. The KASRP tool was developed by Betty Farrell and Margo McCaffery in 1987 and has been frequently used to assess healthcare providers' knowledge, skills, and attitudes related to pain assessment and management across various healthcare settings (Farrell & McCaffery, 2008; World Health Organization, 2018). Since its initial development, the tool has been revised several times to ensure it reflects changes in pain management practices. The multiple revisions have increased its reliability and validity in assessing or evaluating the knowledge and attitudes of nurses and other healthcare professionals towards pain management across different settings. It has been widely used as a pre and post-test evaluation measure for educational programs. Review pain experts have established and confirmed its reliability and content validity by comparing its results with current standards on pain management established by organizations such as the American Pain Society, the World Health Organization, and National Comprehensive Cancer Network Pain Guidelines (Farrell & McCaffery, 2008). The tool's construct validity has been established by comparing scores of nurses at various levels of expertise such as students,

new graduates, oncology nurses, graduate students, and senior pain experts. The tool was

identified as discriminating between levels of expertise. Test-retest reliability was

established ($r > .80$) by repeat testing in a continuing education class of staff nurses ($N =$

60). Internal consistency reliability was established (alpha $r >. 70$) with items reflecting

both knowledge and attitude domains (Ung et al., 2016).

This project involved training healthcare staff on how to assess patients' pain

levels three times a day, that is, 8-hour intervals or every shift instead of waiting for the

patients to communicate about their pain levels and experiences. the staff was introduced

to and trained on using the Pain Assessment in Advanced Dementia Scale (PAINAD)

scale, which was developed in 2003 by Victoria Warden, Ann C. Hurley, and Ladislav

Volicer to provide a universal method of analyzing the pain experienced by people in

late-stage dementia. The PAINAD tool is an evidence-based reliable assessment tool for

dementia patients. It can be used in both nonverbal and verbal patients (Warden et al.,

2003). It is highly valid and reliable and has been recommended by multiple scholars to

improve the quality of care and pain assessment and management among patients with

cognitive, communication, and memory problems or challenges. The PAINAD scale

currently represents one of the best approaches to pain detection in dementia. In a pilot

study by Lukas et al., (2019) a strong inter-rater and retest reliability of the German

version (PAINAD-G) was proven. The PAINAD has been designed to assess pain in this

population by looking at five specific indicators: breathing, vocalization, facial

expression, body language, and ability to be consoled. The PAINAD is a pain scoring

tool whereby the total score ranges from 0-10 points. A possible interpretation of the scores is 1-3 = *mild pain*; 4-6 = *moderate pain*; 7-10 = *severe pain* (Warden et al., 2003).

Apart from being educated on the effective use of the PAINAD tool, the staff was also trained on other techniques for recognizing and assessing pain in patients with AD. they were also educated on pharmacologic and non-pharmacologic interventions for managing and controlling pain in patients with AD. The project was aimed at equipping staff from the selected facility with enhanced knowledge, skills, and competencies for recognizing, assessing, and managing pain in patients with AD.

Role of the DNP Student

I have been a practicing nurse for over ten years. My profession has allowed me to operate in different medical areas like orthopedics, outpatient surgery, cardiology, inpatient department, and administration. I have also worked in the acute care clinic as a family nurse and in long-term care facilities caring for aged people with different chronic mild to severe health conditions. In all my working in various faculties, I have observed that healthcare providers did not effectively do pain identification, assessment, and management in all the departments.

When working in the long-term care setting and orthopedics department, I observed many dementia patients Where pain identification on the patients was not correctly done Hayes and Gordon, 2015).

I am motivated to conduct the staff education program project to close the gap on limited knowledge and skills by care staff on pain assessment and management in

patients with AD. I also want to enhance positive attitudes in nursing staff regarding identifying, assessing, and managing pain in patients with AD in nursing homes or long-term care facilities. The project was implemented in a 50-bed capacity nursing home facility. As a DNP student completing this project, my role was to develop a staff education program on identifying, assessing, and managing pain in patients with AD. The staff education program was suitable for an inter-professional team of health practitioners consisting of nurses and physicians. My duty as a DNP student was to educate staff with new or current evidence-based practices for assessing and managing pain in patients with AD. I facilitated the project by equipping the staff with knowledge and skills on conveniently and effectively assessing and managing pain in dementia patients and making any other relevant changes to pain management practices. I collaborated with the leaders of the selected facility to ensure that they supported this project and that all physicians and nurses in the selected facility were allowed to participate in the staff education program. I also related well with all staff to positively influence them to engage in the education program and change their attitudes and practices towards effectively assessing and managing pain in patients with AD and other cognitive and memory disorders.

Role of the Project Team

The facility had fourteen permanent staff: ten nursing staff and two physicians. The project team included three staff, that is, one physician and two Nurse Practitioners (NPs) selected to form the project committee or team whose main role was to review my project draft. The physicians were the preceptors. The other permanent staff, including

the remaining physicians, NPs, certified nursing assistants (CNAs), licensed practical

nurses (LPNs), and registered nurses (RNs) were the project participants.

 I was the educator delivering the staff education program to the healthcare team.

The project participants participated by taking pretests and post-tests to assess their

assessed knowledge levels and attitudes on effective pain assessment and management in

patients with AD. They also attended the educational program to improve their skills,

foundational knowledge, and attitudes towards pain assessment and management. The

staff education program was implemented in three sessions every week for four weeks,

and the staff or team were expected to attend all the sessions. Before the education

program was implemented, the staff's knowledge, skills, and attitudes towards

recognizing, assessing, controlling, and managing pain in patients with AD were assessed

using the KASRP tool or questionnaire. The results were recorded as they were to be

used as the pre-test data during the data analysis. The staff was trained or educated using

the staff education program that I had developed. After the education program was

implemented, the staff's skills, attitudes, knowledge, and competencies towards

recognizing, assessing, controlling, and managing pain in patients with AD were

reevaluated using the KASRP tool. The results or scores from the KASRP tool were

recorded as they were to be used as posttest data during the analysis process. This helped

determine if the staff improved their pain assessment and management skills, knowledge,

and attitudes towards timely assessment and management of pain in patients with AD.

Summary

Section 2 introduced the theories framing the project: Kolcaba's comfort theory and Watson's caring theory. The evidence relevant to the project was explored. The local background and context, the role of the DNP student, and the role of the project team were discussed. Section 3 will explore the participants, procedures, and protections related to the project. The analysis and synthesis of the data will be described.

Section 3: Collection and Analysis of Evidence

Introduction

The lack of adequate skills and knowledge on evidence-based practices for pain management among healthcare providers has made identifying, assessing, and treating pain among people with AD a severe healthcare challenge in the United States. Generally, many healthcare facilities do not implement frequent education programs for their staff to learn about effective and evidence-based pain assessment and management practices suitable for improving the pain outcomes and quality of life for patients with AD. Research studies have shown that limited knowledge and skills on pain management contribute to the prolonged suffering of patients with AD and other memory and cognitive disorders in healthcare settings, especially long-term care facilities (Dahlhamer et al., 2018).

Hayes and Gordon (2015) concluded that nurses being immediate caregivers to patients play a pivotal role in solving the pain management crisis in patients with dementia. The goal of this evidence-based project was to develop a workforce skill and knowledge-instilling program to improve the healthcare staff's skills, knowledge, and attitudes in pain identification, assessment, and management in patients with dementia. Section 3 explores the participants, procedures, and protections related to the project. The process for analysis and synthesis of the data will be described.

Practice-Focused Question

Inadequate knowledge, skills, competence, and lack of positive attitudes towards assessing and managing pain in patients with memory disorders such as AD have led to

the suffering of many patients in nursing homes, long term care facilities, and across various healthcare settings in America and the world (Dahlhamer et al., 2018). The purpose of this evidence-based project was to develop and implement a staff education program on some of the most current and convenient practices of identifying, assessing, and managing pain in patients with AD. The practice-focused question was: Will a staff education program on identification, assessment, and management of pain in patients with AD improve the staff's knowledge, skills, and attitude towards timely and effective pain assessment management?

Sources of Evidence

The sources of evidence used for this project emphasize equipping healthcare providers with better skills for identifying, assessing, and managing pain in patients with AD and other memory disorders. I drew evidence from primary research articles, scientific and academic journals, books, websites, and practice guidelines and reports on effective evidence-based interventions for improving pain assessment and management in patients with AD and other memory disorders across various healthcare settings. The primary research articles and peer-reviewed journal articles used in this project were published in the last 5 years from 2017-2021. The scientific databases utilized to conduct the project research were the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, Cochrane, and PubMed for peer-reviewed scholarly articles. Key terms and their combinations used to search relevant databases include *dementia, Alzheimer's dementia, pain management and assessment, healthcare practitioners' role in*

pain assessment and management, pain management linked with dementia, and *educating nurses assessing and managing pain in patients with AD.*

Evidence Generated for the Doctoral Project

Participants

The selected facility had 14 staff (nursing staff and physicians) who were directly involved in providing medical care. The nursing staff range from nurse practitioners (NPs), certified nursing assistants (CNAs), licensed practical nurses (LPNs), and registered nurses (RNs). All the staff was invited to participate in the staff education program through formal emails, memos, and internal meetings. I liaised with the organization's management to inform the staff of the invitation to participate in the education or training program through formal communication methods.

Procedures

The procedures for project implementation included planning, implementation, and evaluation.

Planning

Planning for this project included assessing the need for the project, obtaining a commitment of support from organizational leadership, review of the evidence, and developing a draft of the education program (Appendix A). Tools used in this project were the KASRP tool (Appendix B) and the PAINAD scale (Appendix C), which were freely available tools that did not require formal permission to use. The Knowledge and Attitudes Survey Regarding Pain (KASRP) is a 37-item questionnaire. It contains 21 true or false questions and 16 multiple-choice questions. The KASRP tool was developed by

Betty Ferrell and Margo McCaffery in 1987 and has been frequently used to assess

healthcare providers' knowledge, skills, and attitudes related to pain assessment and

management across various healthcare settings (Farrell & McCaffery, 2008). This tool

was used without any modifications (Appendix B). The Pain Assessment in Advanced

Dementia Scale (PAINAD) scale was developed in 2003 by Victoria Warden, Ann C.

Hurley, and Ladislav Volicer to provide a universal method of analyzing the pain

experienced by people in late-stage dementia (Appendix C). The PAINAD tool is an

evidence-based reliable assessment tool for dementia patients. It can be used in both

nonverbal and verbal patients (Warden et al., 2003). It is highly valid and reliable and has

been recommended by multiple scholars to improve the quality of care and pain

assessment and management among patients with cognitive, communication, and

memory problems or challenges. The PAINAD has been designed to assess pain in this

population by looking at five specific indicators: breathing, vocalization, facial

expression, body language, and ability to be consoled. The PAINAD is a pain scoring

tool whereby the total score ranges from 0-10 points. A possible interpretation of the

scores is 1-3 = *mild pain*; 4-6 = *moderate pain*; 7-10 = *severe pain* (Warden et al., 2003).

Implementation

Participants completed the KASRP tool 4 weeks before and after the staff

education program. The KASRP tool or instrument that was completed by staff before

implementing the education program was printed on blue paper, while the one that they

completed after the education program was printed on white papers.

Evaluation

I analyzed the data to determine if the implementation of the staff education program led to any positive and significant improvement in the health care staff's (participants) knowledge, skills, and attitudes towards pain assessment and management in patients with AD. I analyzed the pretest and posttest data to determine if the implementation of the staff education program led to any positive and significant improvement in staff knowledge and attitudes towards pain management in patients with AD.

Protections

Participants completed a consent form for anonymous questionnaires from the Walden University DNP Manual for Staff Education Programs before participating in the project. The site approval form for staff education doctoral project was submitted to the Walden Institutional Review Board (IRB) before seeking IRB approval for the project. The approval # was 11-24-21-0477730.

Analysis and Synthesis

I conducted pre and postimplementation data collection using KASRP questionnaire. All data were analyzed using SPSS software.

Summary

The evidence review highlighted the numerous issues on poor and inadequate pain assessment and management in patients with AD. This project was a staff education program to train and improve staff's pain assessment and management knowledge, skills, and attitudes in a selected nursing home. The project used the KASRP tool to assess the

staff's knowledge, skills, and attitudes before and after the staff education program on pre

and post project implementation. I discussed the findings from the project, strengths and

limitations, and recommendations in Section 4.

Section 4: Findings and Recommendations

Introduction

Pain management has become a serious healthcare concern as a result of a lack of proper education and training for health personnel in pain assessment and treatment techniques. Most healthcare practitioners and nurses lack the necessary expertise and abilities to recognize and manage pain in people with AD (Loeser & Schatman, 2017). This evidence-based project aimed to implement a staff education program to enhance pain management knowledge, skills, and attitudes of healthcare staff caring for patients with AD. The practice question that guided this project is: Will a staff education program on identifying, assessing, and managing pain in patients with AD improve the staff's knowledge, skills, and attitude towards timely and effective pain assessment management.

Implementation of the project took place over 4 weeks. A training program on pain identification, treatment, and management techniques relevant for patients with AD was designed. Before the education began, the participants completed the KASRP tool/questionnaire pretest to check the providers' understanding, knowledge, skills, and attitudes on managing pain in patients with AD. Participants also completed a consent form for anonymous questionnaires. The staff education program was then implemented in phases and took approximately 4 weeks. Lunch and Learn training events were organized to educate participants about recent evidence-based practices for the treatment of pain in patients with AD. After 4 weeks of education, the participants retook the KASRP.

The KASRP pre and posttest scores were recorded and analyzed using SPSS version 26. A paired *t*-test was also conducted to determine if there was a significant difference in the KASRP scores by the health workers or participants before and after the staff education program.

Findings and Implications

I was permitted use one of the provider's offices to maintain privacy and avoid interfering with patient treatment. Before participating in the education sessions, participants were emailed the KASRP tool/questionnaire to complete as part of the pretest results. The PowerPoint presentation used to provide the instructional content had been reviewed by the project team and was determined to be effective and efficient. The material contained in-depth information about dementia, a description of different forms of pain, and alternative and improved techniques of recognizing, assessing, controlling, treating, and managing pain in individuals with dementia. I collaborated with a project team, which included a practicing nurse and two doctors, to choose a day that would be convenient for everyone to contribute. When the staff education program came to an end, the participants were given KASRP tool/questionnaire to complete as part of the posttest results. The sections below present a detailed discussion of the results, findings, and implications related to this staff education program or project.

Descriptive Data

Fourteen staff participants took part in the education program. Nine (64.29%) were female and five (35.71%) were male. Regarding the age distribution of the participants, the youngest participant was 24 years old, and the oldest participant was 51

years old. The mean age was 42.5 years, and the standard deviation was 6.732.   The 14

participants who took part in the staff education program included two physicians (MD),

four NPs, two CNAs, three LPNs, and three RNs. Table 1 reveals that MDs were 14.29%

of the total participants, while NPs were 28.57%, CNAs were 14.29%, LPNs were

21.43%, and RNs were 21.43% of the total participants. Participants were well distributed

across the professional thus making this program a multidisciplinary training program on

pain assessment and management.

Table 1

*Professional Distribution of the Participants (*N = 14)

Profession	*n*	%
MD	2	14.29%
NP	4	28.57%
CNA	2	14.29%
LPN	3	21/43%
RN	3	21.43%

Results from Data Analysis

After administering the KASRP tool or questionnaire to the participants before

and after the staff education program, I analyzed the KASRP scores before and after the

staff education program using SPSS program version 26.0. Using the results of the data

analysis, I received the following Statistics on the KASRP score before and after the

implementation of the staff education program.

KASRP Scores Before and After the Staff Education Program

The 14 participants completed the KASRP questionnaire before and after

undergoing the staff education program. The maximum or highest possible score on the

KASRP tool is 37 which is equal to a 100% score. Before implementing the staff

education program or training, the lowest score attained by the participants was 26, which

corresponds to 70.27%, and the highest score was 31, which corresponds to 83.78%.

Before implementing the staff education program, the mean score on the KASRP tool by

the participants was 28, which is corresponds to 75.66% with a standard deviation of

4.722%.

The KASRP score following the execution of the staff education program

indicated an improvement in all areas. The lowest score on the KASRP by the

participants was 32, which corresponds to 86.49%, and the highest score on the KASRP

tool was 36, which corresponds to 97.30%, indicating an overall improvement. After

implementing the staff education program, the mean score on the KASRP tool by the

participants was 35, which corresponds to 94.59% and the standard deviation was

2.680%. Table 2 summarizes and represents this information.

Table 2

KASRP Score Before and After Implementation

	Minimum score	Maximum score	*M*	*SD*
Before staff education	26(70.27%)	31(83.78%)	28(75.66%)	4.722
After staff education	32(86.49%)	36(97.30%)	35(94.59%)	2.680

Paired *t*-Test Results

I conducted a paired *t*-test to determine if there was any significant difference in

the KASRP scores by the participants before and after implementing the staff education

program on identifying, assessing, and managing pain in patients with AD. The results

from the test showed that there was a significant difference in the score on the KASRP

tool by the participants before the staff education program ($M = 28$, $SD = 4.772$) and the

score on the KASRP tool after the staff education program ($M = 35$, $SD = 2.680$)

conditions, $t(27) = -12.11$, $p = .05$. These results suggest that training health workers on

recognizing, identifying, assessing, and managing pain in patients with AD enhance their

skills, knowledge, and positive attitude in assessing and treating pain in this patient

population. The data is displayed in Table 3.

Table 3

Paired Samples Test: KASRP Mean Scores Before and After Staff Education

	Paired Differences							
				95% Confidence Interval of the Difference				
	M	*SD*	Std. error mean	Minimum score	Maximum score	*t*	*df*	Sig. (2-tailed)
Pair 1 (Before)	28	4.772	1.913	26	31	-12.113	27	.05
Pair 2 (After)	35	2.680	1.008	32	36	-12.113	27	.05

Note. Pair 1 is the mean KASRP score before the staff education program. Pair 2 is the

mean KASRP score after the staff education program.

One major limitation or restriction that was apparent during the process was the

time constraints. Because the project was completed in one month, it was impossible to

determine how long it would be beneficial in pain management practice and process in the

selected facility. Future exploration of this topic should be conducted for a period longer

than one month to determine if the significant improvement in participant's knowledge,

attitudes, and skills on assessing and managing pain in patients with dementia will still be

notable if the post-test KASRP tool data collection is completed at a longer period after the completion of the training session.

Evaluation of the DNP Project

The purpose of this project was to implement a staff education program aimed at training healthcare professionals on evidence-based practices for assessing, recognizing, and managing pain in patients with AD. The goal was to improve the healthcare staffs' skills, knowledge, and attitudes to better detect, evaluate, diagnose, manage, and treat pain in patients with dementia. Pain evaluation and treatment were shown to be better by healthcare providers who received additional training. Patients with Alzheimer's disease will benefit from this project because it will fill in the knowledge and competence gaps and improve the unfavorable attitudes about detecting and managing pain that already exists. This project has significant benefits in the healthcare settings and community. For instance, it will help increase knowledge on pain management in healthcare practitioners. Future practitioners can use information, literature, and findings from this project to increase their knowledge and gain more insight into managing pain in patients with dementia. As a result, patients with dementia admitted in various healthcare settings will receive better and improved care. They will experience better pain management thus improving their wellbeing and quality of life. This project also acts as a trigger for social change. It provides an opportunity for healthcare leaders both in the private and public healthcare sector to implement policies and changes such as regular training and educational programs for healthcare practitioners to enhance their knowledge, competence, and attitudes towards effective and evidence-based pain management.

Besides, policymakers in the healthcare sector can use information and results or findings presented in this project to implement policies geared towards improving the welfare of critically ill patients experiencing high levels of unrecognized and uncontrolled pain. Hence the project will have a significant impact on reducing the incidence of unrecognized and untreated pain in the population. Patients with Alzheimer's disease will be better cared for by nurses and healthcare professionals in nursing homes and other healthcare institutions. The results will have an enormous influence on future nursing practice.

Recommendations

Insufficient pain management and treatment have had a detrimental influence on society, both via the healthcare system and the economy of the United States (Dahlhamer et al., 2018). Because of a lack of adequate education on pain management among healthcare practitioners, the problem of poor pain management is often not addressed. To address the issue, this project recommends that nurses and other healthcare personnel must be regularly trained or educated in improved methods of controlling pain in individuals with dementia. Although the results of the pretests and post-tests indicate that the persons who participated in the project had sufficient knowledge for managing dementia pain, continued monitoring and education training aid providers in tailoring their care to the specific needs of each.

Healthcare organizations such as rest homes, nursing homes, and other critical care settings that provide care to people with dementia should implement regular staff education or training programs. They could implement such kind of training once in six

months or quarterly. Doing so will significantly improve staffs' knowledge and attitudes in assessing and managing pain in patients with dementia. Besides, policymakers and leaders in the healthcare sector should implement policy changes that force healthcare facilities to implement such training as part of reviewing and renewing their operational licenses.

I also recommend that chart audits be performed regularly to examine healthcare professionals' ability to offer better and more convenient pain management for patients with dementia. The findings suggest that visual cues and reminders for managing pain in patients with dementia should be displayed in the working areas of physicians and areas that are more frequently visited by healthcare providers, to raise awareness about pain management in patients with dementia. In addition, I suggest that healthcare workers be educated on improved techniques of treating pain at intervals throughout the year. Posters and brochures can be used to educate nurses on the most convenient and effective techniques to manage pain in patients

Contribution of the Doctoral Project Team

Working with my project team enabled me to gather information and evaluate both pretest and post-test results to assess the effectiveness of the DNP project's implementation. My project team was composed of three staff members selected from among the 14 healthcare practitioners in the selected facility, that is, one physician and two NPs. They were selected to form the project committee or team whose main role was to review my project draft. The physician was the preceptor. The other permanent staff, including the remaining physician, NPs, CNAs, LPNs, and RNs were the project

participants. I was the educator delivering the staff education program to the healthcare team. The project participants took part by taking pretests and post-tests to assess their assessed knowledge levels and attitudes on effective pain assessment and management in patients with AD. They also attended the educational program sessions to improve their skills, foundational knowledge, and attitudes towards pain assessment and management.

Team members were very supportive. They made a significant contribution to the execution and completion of the project. Firstly, they reviewed my project plan, educational or training material, teaching plan, and learning objectives. They gave me suggestions that helped improve these elements of the project. Besides, they encouraged the participants to attend all the training sessions thus ensuring that the project achieved its intended purpose. Upon completion of the project, they assisted with project evaluation to receive feedback from the participants on the project setting, learning content, and outcomes among other elements. The project team expressed an interest in taking advantage of the recently completed chart audit to examine provider practice trends in the future. They will continue to oversee and guide the staff to ensure the staff implement what they learned and thus continually improve the quality of care and pain management practices in the facility. The project team recommended that the facility should implement regular staff education programs that should be done once every quarter or once in 6 months. They will push for this recommendation to be implemented by the facility leaders.

Strengths and Limitations of the Project

Several advantages and disadvantages were discovered because of conducting this

project. Concerning the project's advantages, the inclusion of all care staff as participants to this project throughout the project implementation ensured that the project met the requirements of a direct practice improvement project. All the 14 healthcare practitioners were selected using the total sampling method and their participation was ensured during the project's inception, execution, and evaluation phases. The project's second strength is that it was implemented cost-effectively in a medium-sized hospital setting, hence eliminating the need for significant financial resources to be invested. Future DNP students may be able to make use of the information, literature, and findings to support their future practice improvement projects or research studies. The project involved the use of a highly reliable tool or questionnaire, that is the KASRP tool to measure or assess the change in the participants' knowledge, skills, and attitudes on pain management following the implementation of the staff education program. This tool is highly reliable and effective in measuring healthcare staff's knowledge, skills, and attitudes towards pain assessment and management. Therefore, the results or findings from the project are highly reliable because a reliable and effective tool was utilized. Besides, the results from this project can be used to generally support or provide evidence on the effectiveness of pain assessment and management training or education programs in different settings involving healthcare staff caring for a different set of patients such as post-operative and critical care patients.

Several restrictions were also apparent during the process. The project was completed in approximately 1 month. This means that the KASRP scores by the participants might have shown great improvement because the pre and posttest results

were 1 month apart and besides the posttest was conducted immediately after the educational program. As such, it is not possible to determine if the participants will continue to have improved knowledge, skills, and attitude towards assessing and managing pain in patients with dementia after a long-time elapse after the training or implementation of the staff education program. Another limitation of this study is the relatively small sample. Although all healthcare staff was included in the project, they were only 14. Hence, the significant improvement in participants' knowledge, skills, and competency in pain assessment after the implementation of the staff education program could be due to the small sample size.

It is recommended that future students conducting an evidence-based or practice improvement project could implement in larger healthcare facilities with a bigger sample to ensure the viability of generalization of the results. It is also recommended that future students could implement such a project in a longer period, probably more than one month. This would help overcome the limitation on time and ensure more versatile, sustainable, and reliable results on changes in participants' knowledge, skills, and attitudes.

Section 5: Dissemination Plan

Introduction

One of the primary goals of my project was to raise awareness about the pain management healthcare problem and to design educational materials that would aid healthcare personnel in providing better and more convenient pain management to patients with dementia in long-term care settings. The findings from this project support the premise that healthcare practitioners are competent in treating and recognizing pain in patients with AD. As a result of the development of pain management education, these healthcare professionals have become aware of the importance of using more effective and comfortable methods of pain management in patients.

I will distribute the project's conclusions as well as share a full copy of this project with the facility's leadership. I will also organize Lunch and Learn sessions with healthcare staff from the project facility as well as my healthcare organization to discuss the findings and recommendations. I will also conduct PowerPoint presentations with other healthcare leaders to demonstrate how implementing regular staff education programs could be beneficial to healthcare staff in charge of delivering direct care to patients with AD. I plan to distribute fliers to hospitals and nursing homes within my region to create awareness about the project and my willingness to present. I will also disseminate information from my project by using social media platforms such as Facebook, Twitter, and emails to share and distribute my project's findings, results, and recommendations. Since pain management is a topic that needs to be thoroughly discussed and debated in society, it will need the combined efforts and measures of all

members of the community and experts to ensure that it is properly managed. I will also disseminate information from my project through poster presentations of the project findings in the future in my local nursing conferences focusing on elderly care.

Analysis of Self

The initiative draws attention to my professional and personal responsibilities as a healthcare practitioner. As a nurse practitioner, I was in a more advantageous position to use the tremendous information and expertise I had gained during the many years of service I had provided in the field. This project provided an opportunity to study and critique a healthcare delivery problem that I have been working with for quite some time. Poor pain management has a negative influence on the patients who are in pain, as well as on the healthcare professionals and the institutions that provide the services. I was also able to collaborate with the most fundamental players, and I brought attention to the issue of pain treatment in patients with AD. The successful execution and completion of the project to the greatest extent possible represent a watershed event in my personal life. The completion of this project is a great milestone in my academic and professional life and journey. Although my environment has not always been supportive, I have always believed in my ability to accomplish and achieve great things. I plan to engage in continuous learning and training on the current trends and evidence-based practices on assessing and managing pain in patients with AD.

Summary

Poor pain management in patients with AD, including identification knowledge and abilities, is a significant healthcare concern, making the treatment of certain

conditions for individuals with AD more difficult than it should have been. Most

healthcare personnel lack adequate training in pain evaluation, which accounts for their

lack of pain management understanding. Although a variety of other variables contribute

to poor pain management, healthcare practitioners' insufficient knowledge is a significant

contributor to the problem. A nurse's ability to influence the situation, on the other hand,

depends on her willingness to acquire new pain management strategies for patients

suffering from AD. Pain management should be improved and healthcare practitioners

can and should be taught how to do so. With the acquisition of practical pain

management skills and information, it is possible to eliminate the need for severe pain

management for patients with AD.

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Appendix A: Staff Education Program

Program Objectives	Instructional Content	Instructional Methods
1. Evaluate knowledge and skills on pain identification, assessment, and management in patients with dementia.	1) Identifying signs of pain and distress in dementia patients. 2) Identifying and using the correct pain assessment tool or instrument. 3) Documenting pain-severity, variability, location, time of onset, movement of patient at the time of pain onset, spread of pain. 4) Evaluation of the pain sight- Skin color, tenderness, bulging, physical injuries, skin texture. 5) Pharmacologic interventions- Scheduled pain medications, PRN pain medications. 6) Non-pharmacologic interventions- Massage. Gentle massage or massage therapy, relaxation techniques, acupuncture, electro acupuncture, acupressure, physical therapy, pet therapy, gel packs and warming therapy.	• PowerPoint presentation to be conducted in a training room. • Instructor-led training.

2. Improve staff positive attitudes and beliefs towards pain identification, assessment, and management among patients with dementia.	1. Positive interaction, communication and relationship between staff and patients and their families. 2. Collaboration and teamwork in pain identification, assessment, and management. 3. Active listening and observation of patients' behaviors and needs. 4. Nurse core values and how they relate to pain assessment and management- human dignity, integrity, autonomy, altruism, and social justice. 5. How can nurses integrate the values and caring behaviors towards patients with dementia?	• PowerPoint presentation to be conducted in a training room. • Instructor-led training. • Role plays
3. Examine staff knowledge and skills on using evidence-based pain assessment tools for patients with dementia.	The Pain Assessment in Advanced Dementia Scale (PAINAD): 1. The attributes and elements of the tool. 2. Benefits and limitations. 3. How to rate patients' pain using the PAINAD tool. 4. Dos' and don'ts of using PAINAD tool.	• PowerPoint presentation to be conducted in a training room. • Instructor-led training. • Role plays • Demonstration • Interactive group discussion and activities.

	5. Frequency of assessing pain using PAINAD tool to achieve high level of pain management and relief in patients with dementia. 6. Observation and communication 7. Documenting and reporting pain	

Appendix B: Knowledge and Attitude Survey Regarding Pain (KASRP) Tool

1. Vital signs are always reliable indicators of the intensity of a patient's pain. **T   F**

2. Because their nervous system is underdeveloped, children under two years of age have decreased pain sensitivity and limited memory of painful Experiences. **T   F**

3. Patients who can be distracted from pain usually do not have severe pain. **T   F**

4. Patients may sleep despite severe pain. **T   F**

5. Aspirin and other nonsteroidal anti-inflammatory agents are NOT effective analgesics for painful bone metastases. **T   F**

6. Respiratory depression rarely occurs in patients who have been receiving stable doses of opioids over a period of months. **T   F**

7. Combining analgesics that work by different mechanisms (e.g., combining an NSAID with an opioid) may result in better pain control with fewer side effects than using a single analgesic agent. **T   F**

8. The usual duration of analgesia of 1-2 mg morphine IV is 4-5 hours. **T   F**

9. Research shows that promethazine (Phenergan) and hydroxyzine (Vistaril) are reliable potentiators of opioid analgesics. **T   F**

10. Opioids should not be used in patients with a history of substance abuse. **T   F**

11. Elderly patients cannot tolerate opioids for pain relief. **T   F**

12. Patients should be encouraged to endure as much pain as possible before using an opioid. **T   F**

13. Children less than 11 years old cannot reliably report pain so clinicians should rely solely on the parent's assessment of the child's pain intensity. **T   F**

14. Patients' spiritual beliefs may lead them to think pain and suffering are necessary. **T   F**

15. After an initial dose of opioid analgesic is given, subsequent doses should be adjusted in accordance with the individual patient's response. **T   F**

16. Giving patients sterile water by injection (placebo) is a useful test to determine if the pain is real. **T   F**

17. Vicodin (hydrocodone 5 mg + acetaminophen 500 mg) PO is approximately equal to 5-10 mg of morphine PO. **T   F**

18. If the source of the patient's pain is unknown, opioids should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain. **T   F**

19. Anticonvulsant drugs such as gabapentin (Neurontin) produce optimal pain relief after a single dose. **T   F**

20. Benzodiazepines are not effective pain relievers unless the pain is due to muscle spasm. **T   F**

21. Narcotic/opioid addiction is defined as a chronic neurobiologic disease, characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving. **T   F**

Part 2: Multiple Choice – Place a check by the correct answer.

1. The recommended route of administration of opioid analgesics for patients with persistent cancer-related pain is
_____ a. intravenous
_____ b. intramuscular
_____ c. subcutaneous
_____ d. oral
_____ e. rectal

2. The recommended route administration of opioid analgesics for patients with brief, severe pain of sudden onset such as trauma or postoperative pain is
_____ a. intravenous
_____ b. intramuscular
_____ c. subcutaneous
_____ d. oral
_____ e. rectal

3. Which of the following analgesic medications is considered the drug of choice for the treatment of prolonged moderate to severe pain for cancer patients?
_____ a. codeine

_____ b. morphine
_____ c. meperidine
_____ d. tramadol

Which of the following IV doses of morphine administered over a 4-hour period would be equivalent to 30 mg of oral morphine given q 4 hours?
_____ a. Morphine 5 mg IV
_____ b. Morphine 10 mg IV
_____ c. Morphine 30 mg IV
_____ d. Morphine 60 mg IV

4. Analgesics for post-operative pain should initially be given
_____ a. around the clock on a fixed schedule
_____ b. only when the patient asks for the medication
_____ c. only when the nurse determines that the patient has moderate or greater discomfort

5. A patient with persistent cancer pain has been receiving daily opioid analgesics for 2 months. Yesterday the patient was receiving morphine 200 mg/hour intravenously. Today he has been receiving 250 mg/hour intravenously. The likelihood of the patient developing clinically significant respiratory depression in the absence of new comorbidity is
_____ a. less than 1%
_____ b. 1-10%
_____ c. 11-20%
_____ d. 21-40%
_____ e. > 41%

The most likely reason a patient with pain would request increased doses of pain medication is
_____ a. The patient is experiencing increased pain.
_____ b. The patient is experiencing increased anxiety or depression.
_____ c. The patient is requesting more staff attention.
_____ d. The patient's requests are related to addiction.

6. Which of the following is useful for treatment of cancer pain?
_____ a. Ibuprofen (Motrin)
_____ b. Hydromorphone (Dilaudid)
_____ c. Gabapentin (Neurontin)
_____ d. All the above
7. The most accurate judge of the intensity of the patient's pain is
_____ a. the treating physician
_____ b. the patient's primary nurse
_____ c. the patient

_____ d. the pharmacist

_____ e. the patient's spouse or family

8. Which of the following describes the best approach for cultural considerations in caring for patients in pain?

_____ a. There are no longer cultural influences in the U.S. due to the diversity of the population.

_____ b. Cultural influences can be determined by an individual's ethnicity (e.g., Asians are stoic, Italians are expressive, etc).

_____ c. Patients should be individually assessed to determine cultural influences.

_____ d. Cultural influences can be determined by an individual's socioeconomic status (e.g., blue collar workers report more pain than white collar workers).

How likely is it that patients who develop pain already have an alcohol and/or drug abuse problem?

< 1%   5 – 15%   25 - 50%   75 - 100%

The time to peak effect for morphine given IV is

_____ a. 15 min.

_____ b. 45 min.

_____ c. 1 hour

_____ d. 2 hours

9. The time to peak effect for morphine given orally is

_____ a. 5 min.

_____ b. 30 min.

_____ c. 1 – 2 hours

_____ d. 3 hours

10. Following abrupt discontinuation of an opioid, physical dependence is manifested by the following:

_____ a. sweating, yawning, diarrhea, and agitation with patients when the opioid is abruptly discontinued

_____ b. Impaired control over drug use, compulsive use, and craving

_____ c. The need for higher doses to achieve the same effect.

_____ d. a and b

Part 3: Case Studies

Directions: Two patient case studies are presented. For each patient you are asked to make decisions about pain and medication. Please select one answer for each question.

Patient A: Andrew is 25 years old, and this is his first day following abdominal surgery. As you enter his room, he smiles at you and continues talking and joking with his visitor. Your assessment reveals the following information: BP = 120/80; HR = 80; R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8.

On the patient's record you must mark his pain on the scale below. Circle the number that represents your assessment of Andrew's pain. 0 = no pain/discomfort to 10 = worst pain/discomfort

0   1   2   3   4   5   6   7   8   9   10

Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief." Check the action you will take at this time.

_____ 1. Administer no morphine at this time.

_____ 2. Administer morphine 1 mg IV now.

_____ 3. Administer morphine 2 mg IV now.

_____ 4. Administer morphine 3 mg IV now.

Patient B: Robert is 25 years old, and this is his first day following abdominal surgery. As you enter his room, he is lying quietly in bed and grimaces as he turns in bed. Your assessment reveals the following information: BP = 120/80; HR = 80; R = 18; on a scale of 0 to 10 (0 = no pain/discomfort, 10 = worst pain/discomfort) he rates his pain as 8.

On the patient's record you must mark his pain on the scale below. Circle the number that represents your assessment of Robert's pain:

0   1   2   3   4   5   6   7   8   9   10

Your assessment, above, is made two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief." Check the action you will take at this time:

_____ 1. Administer no morphine at this time.

_____ 2. Administer morphine 1 mg IV now.

_____ 3. Administer morphine 2 mg IV now.

_____ 4. Administer morphine 3 mg IV now.

Appendix C: The Pain Assessment in Advanced Dementia Scale (PAINAD) tool

Assessment	**0**	**1**	**2**	**Score**
Breathing independent of vocalization	Normal	Occasional laboured breathing Short periods of hyperventilation	Noisy laboured breathing Long periods of hyperventilation Cheyne-stokes respirations	
Negative vocalization	None	Occasional moan or groan Low-level speech with a negative or disapproving quality	Repeated troubled calling out Loud moaning or groaning Crying	
Facial expression	Smiling or inexpressive	Sad. Frightened Frown	Facial grimacing	
Body Language	Relaxed	Tense Distressed pacing Fidgetting	Ridgid Fists clenched Knees pulled up Pulling or pushing away Striking out	
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure	
Total Score				

Appendix D: Permission to Use KASRP

City of Hope

October 2012

The "Knowledge and Attitudes Survey Regarding Pain" tool can be used to assess nurses and other professionals in your setting and as a pre and post test evaluation measure for educational programs. The tool was developed in 1987 and has been used extensively from 1987 - present. The tool has been revised over the years to reflect changes in pain management practice.

Regarding issues of reliability and validity: This tool has been developed over several years. Content validity has been established by review of pain experts. The content of the tool is derived from current standards of pain management such as the American Pain Society, the World Health Organization, and the National Comprehensive Cancer Network Pain Guidelines. Construct validity has been established by comparing scores of nurses at various levels of expertise such as students, new graduates, oncology nurses, graduate students, and senior pain experts. The tool was identified as discriminating between levels of expertise. Test-retest reliability was established (r>.80) by repeat testing in a continuing education class of staff nurses (N=60). Internal consistency reliability was established (alpha r>.70) with items reflecting both knowledge and attitude domains.

Regarding analysis of data: We have found that it is most helpful to avoid distinguishing items as measuring either knowledge or attitudes. Many items such as one measuring the incidence of addiction really measures both knowledge of addiction and attitude about addiction. Therefore, we have found the most benefit to be gained from analyzing the data in terms of the percentage of complete scores as well as in analyzing individual items. For example, we have found it very helpful to isolate those items with the least number of correct responses and those items with the best scores to guide your educational needs.

Enclosed for your use is a copy of our instrument and an answer key. You may use and duplicate the tool for any purpose you desire in whole or in part. References to some of our studies which have included this tool or similar versions are included below. We have received hundreds of requests for the tool and additional use of the tool can be found in other published literature. We also acknowledge the assistance of several of our pain colleagues including Pam Kedziera, Judy Paice, Deb Gordon, June Dahl, Hob Osterlund, Chris Pasero, Pat Coyne and Nessa Coyle in the revisions over the years. If using or publishing the tool results please cite the reference as **"Knowledge and Attitudes Survey Regarding Pain" developed by Betty Ferrell, RN, PhD, FAAN and Margo McCaffery, RN, MS, FAAN, (http://prc.coh.org), revised 2012.**

We hope that our tool will be a useful aid in your efforts to improve pain management in your setting.

Sincerely,

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