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Enhancing Nurses' Assessment of Pain Management in Dementia Patients

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Walden University
2017

Abstract

Enhancing Nurses' Assessment of Pain Management in Dementia Patients

by

Norma J. Boone

MSN, Walden University, 2013

AD, Georgia Southwestern College, 1989

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

November 2017

Abstract

Chronic pain contributes to morbidity, mortality, and disability in millions of people. Prevalence rates for pain are as high as 83% among the 5.2 million older adults living with a diagnosis of dementia. The purpose of the quality improvement project was to assess nurses' knowledge of pain assessment and management in a 45-bed Veterans Health Administration long-term care facility serving older adults with dementia. Knowles' adult learning theory served as the theoretical framework and the knowledge to action model supported the translation of evidence into practice. A convenience sample of 27 licensed and unlicensed nursing staff answered the 16-question, 5-point Likert scale survey, Self-Assessment of Knowledge in Assessing Pain in Dementia Patients and 7 demographic questions. Data analysis was conducted using a one way ANOVA. Knowledge of best practices for pain assessment and management varied significantly by job title; RNs had the highest knowledge mean score (M = .74), followed by LPNs (M = .54), and then by CNAs (M = .40; p < .001). Similarly, nurses with an associate degree or higher had better knowledge (M = .74) than nurses without an associate degree (M = .42; p < .001). Knowledge was unrelated to years of employment in long-term care. However, 85% of the nurses believed pain was assessed and managed correctly in the facility. These data suggested that nurses' assessment and management of pain may be disconnected to their self-assessment knowledge scores. Positive social change may be realized as the project findings are used to develop education for the nursing staff related to the knowledge deficits identified by the survey and application of an evidence-based tool to assess pain in cognitively-impaired older residents.

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Dedication

This project is dedicated to my parents, the late Mr. Andrew Boone and the late Mrs. Myrtice Boone. You are the wind beneath my wings. With selflessness, you have made sacrifices of your wants and needs so that I could experience a better life. You have been the one and only constant support throughout my life. As I continue on my professional and personal journeys through life I hope that I can touch and inspire someone in the same manner in which you have inspired me.

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Section 1: Nature of the Project

Introduction

Pain is a global dynamic that is experienced by humans at any given moment during the lifespan. It is a complex physical and mental phenomenon that is specific to the individual and influenced by cultural, psychosocial, and biological factors (Cox, 2010). Defined by the International Association for the Study of Pain (IASP) pain is " an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage" (Mersky & Bogduk, 1994, p. 211). Dewar (2006) asserted "pain is what the patient says it is" (p. 35). Because of the high prevalence of pain, effective assessment and management of pain is a critical component to delivering quality care. The dissemination of evidence based pain management information is vital to changing nurses' knowledge and attitudes.

Pain can be either acute or chronic. According to Bond and Simpson (2006), acute pain is characterized as being localized or of a limited duration and subsides as the healing process occurs. The manifestation of acute pain is also associated with a stress response, which is indicated by increased heart rate and elevated blood pressure (Bond & Simpson, 2006). Chronic pain, unlike acute pain, lasts longer than the healing process, which is typically 3 months and does not include tissue damage as an indicator (citation). Due to the longevity of chronic pain, emotional and behavioral variances can be noted as the individual attempts to adapt and cope with the ongoing painful stimuli (Gregory, 2014).

The experience of pain is determined by multiple factors: age, gender, culture, ethnicity, spiritual beliefs, socioeconomic status, emotional response, support systems, and life prior to the onset of pain (Pasquale, 2011).

Pain affects the individual's quality of life due to changes in social status and societal and family roles. The impact of pain, especially chronic pain, places pressure on an already stressed health care system and the community (Gregory, 2014). According to estimates reported by the Joint Commission (2015) there are 76 million people suffering from pain in the United States. The Institute of Medicine pointed out that the cost of lost productivity due to pain in 2010 was between 297.4 billion to 335.5 billion dollars annually (American Academy of Pain Medicine [AAPM], n.d.). Constant unrelieved pain also causes psychological changes such as disturbances in sleep patterns, anxiety, anger, depression, and demoralization (Pasquale, 2011).

Due to the complexity of pain, Gregory (2014) argued that the treatment of pain needs to incorporate a pain assessment tool for proper diagnosis and to determine the efficacy of the provided intervention. The selected pain assessment tool should be easy to use and understandable by both the patient and nursing staff and should be selected according to the required level of sensitivity. There are several pain assessment tools available for use: Wong-Baker FACES pain rating scale, the 0-10 numeric pain rating scale, Where is your pain? (a pictorial of the human body and the patient is asked to mark the areas where pain is present), and the pain quality assessment scale (PQAS) (Gregory, 2012). Most pain assessment tools are geared toward the speaking and cognitively intact patient who is able to self-report pain. According to the Joint Commission (2014), there

continues to be a gap in the use of a pain assessment tool that is suitable for the patient experiencing cognitive decline due to dementia.

Problem Statement

The problem to be addressed by this project is nurses' knowledge of assessment and management of pain in older adults with dementia. Literature suggested that a significant proportion of older adults reside in long-term care nursing facilities (Dening, 2014) and that those adults with a diagnosis of dementia often experienced painful conditions that go unidentified or poorly identified and managed (Newton, Reeves, West, & Schofield, 2014). Management of pain in the older adult residing in long-term care nursing facilities continues to challenge medical and nursing health care providers (Russell, Madsen, Flesner, & Rantz, 2010). Russell et al. (2010) suggested that part of the challenge is related to the professionals' personal beliefs and attitudes toward pain management in older adults. In order to assess pain in the dementia patient, long-term care facilities need a multifaceted pain management program including knowledgeable bedside nursing staff, understanding of psycho-sociocultural factors, and patient-centered care (Newton et al., 2014). This multifaceted pain management program needs to (a) serve as a preventive measure, (b) improve quality of care, (c) improve nursing staff's assessment skills of dementia patients, and (d) adapt care to changes in cognition of older patients (Scherder & Plooij, 2012). Currently, multiple pain assessment tools are used to assess pain of dementia patients in long-term care facilities (Scherder & Plooij, 2012). At the present time, only the 0-10 numeric pain rating scale is being used in the DNP project site facility. The Joint Commission (2014) asserted that facilities providing care to

dementia patients must use validated nonverbal/noncognitive tools to assess the presence and degree of pain. The Joint Commission (2014) established memory care requirements based on five factors: (a) care coordination, (b) staff knowledge and competency, (c) activity programming based on abilities, (d) behavior management, and (e) a safe and supportive physical environment. The focus of this project is care coordination and staff knowledge and competency. Reasons for the slow uptake and of the Joint Commission's recommendations are attributed to nursing staff's use and familiarity with the 0-10 numeric pain scale and unwillingness to use another pain scale, as well as lack of training and knowledge of how to use a pain scale that is focused on the cognitive level of the patient. Without effective bedside nursing assessment skills, pain in the dementia patient will continue to be underrated and undertreated (Denham, 2013). A study of nurses' skills, knowledge, and attitudes toward assessment and management of pain in dementia patients in long-term care facilities is needed (Newton et al., 2014).

Purpose Statement

The purpose of this quality improvement project is to assess nursing knowledge of pain assessment and management in a long-term care facility for veterans. The Alzheimer's Association (2012) reported there are approximately 5.2 million Americans over the age of 65 who have dementia and 1.5 million of those individuals live in long-term care facilities (George Washington University, 2015). It is well documented that pain is undertreated and underassessed in dementia patients resulting in physiological and psychological changes that precipitate a reduction in quality of life (Miller, 2011). Factors identified as barriers to the assessment of pain in the dementia population are

poor and outdated training and education, inconsistent use of pain guidelines and assessment tools, and stressed resources (Bruneau, 2014).

Nature of the Doctoral Project

Nurses incorporate their personal beliefs and attitudes into decision making which influences their delivery of care. The nature of the DNP project is to enhance nurses' assessment and management of pain in cognitively-impaired older adults. Personal beliefs on the aging process and lack of knowledge on how to assess pain accurately in nonverbal, cognitively-impaired adults results in the underassessment and undertreatment of pain for this population. As the number of older adults with cognitive impairment continues to grow so must nurses knowledge of how to accurately and effectively deliver quality care. The project is a first step in understanding the education needs of the nursing staff.

Significance to Practice

The American Association of Colleges of Nursing (2006) Essential III highlighted the importance of clinical scholarship and evidence-based practice. This DNP project is advantageous for increasing nurses' knowledge and improving patient-centered care based on evidence. The DNP-prepared professional is equipped to influence and appraise change in the clinical setting through the application of clinical scholarship and evidence-based practice (Zaccagnini & White, 2011). The significance to practice demonstrated in this project will be increased awareness of pain assessment in residents with cognitive impairment due to dementia and the importance of utilizing pain assessment tools specific for cognitively impaired patients, such as the PAINAD scale.

A prevailing issue among dementia patients is the under assessment and management of pain. Unfortunately, pain is the highest reported symptom among older people having a diagnosis of dementia, with prevalence rates as high as 83% (Zwakhalen, Evan't Hof, & Hamers, 2012). The ability to self-report pain becomes more difficult as cognition declines due to the dementia disease process (Scherder & Plooij, 2012). Having a pain assessment tool specific for those experiencing cognitive impairment and knowledge of how to use the tool is warranted to improve the quality of care delivered and the quality of life for the patient.

Lewthwaite et al. (2011) asserted "providing adequate pain management is contingent on the knowledge, skills, and attitudes" of the nurses providing care (p. 255). It is imperative that an assessment of pain knowledge and management be conducted on the nurses working at the project site before developing and implementing a targeted educational intervention. Project results can be disseminated to acute care areas within the project site facility as well as to other long-term care facilities within the VHA health care system.

Implications for Social Change in Practice

An expected change for nurses would be an increase in the knowledge and assessment of pain as it presents in the older adult patients with dementia. Nursing staff will be better equipped to assess patients with dementia for unmet needs to prevent or reduce the administration of antipsychotic drugs to control delirium. Another expectation of the long-term care facility, as part of the fastest growing VHA medical center in the southeastern region, is that nursing staff can participate in evidence-based poster fairs to

disseminate evidence-based practices for dementia care and serve as resources for the acute care areas of the facility. The consistent use of a nonverbal pain assessment scale such as the PAIDAD can assist nursing staff in accurately assessing and managing pain in the dementia patient

Assumptions and Limitations

The end product of this DNP project determined the knowledge and beliefs nurses have about pain in older adults with cognitive impairment. Project data came from nurses working in a long-term care facility for veterans. The sample size was small compared to the 675 nurses employed throughout the VA medical center facility that includes inpatient and outpatient units, community-based outpatient clinics (CBOCs), and home-based primary care (HPBC).The project was conducted to determine nurses' knowledge of pain in older adults, physiological changes associated with aging, common pain presentations among older adults, and differences in pain assessment for patients with dementia. Results from the project will facilitate the design of interventions that will increase awareness and enhance the assessment and management of pain in older adults with dementia. It is assumed that the nurses participating in the survey will have provided care for older adults with impaired cognition. Limitations of the project are related to the number of nurses willing to participate in the needs assessment. Nurses working off tours may have been reluctant to participate due to training and education sessions being held during day tour hours.

Summary

Pain, acute or chronic, is a phenomenon that can be experienced by anyone at any point across the lifespan. However, the management of pain in the older adult is different than that of the younger adult (Schofield et al., 2017)**.** The assessment of pain in older adults can be challenging, especially among older adults with cognitive impairment due to dementia (Schofield et al., 2017)**.** The inability of patients to communicate verbally places the burden of pain assessment on the nurse. Accurate assessment of pain is critical to adequate treatment and management of pain. The literature suggested increasing awareness for pain assessment in the patient with cognitive impairment is critical to improve the quality of care for this population (Tracy & Morrison, 2013). In the long-term care facility where the DNP project will be conducted, there is not a pain tool available for assessing the cognitively impaired resident. Heightening nurses' awareness of physiological changes of aging, common pain presentations, and the PAINAD tool. The first step in this change process is to conduct a needs assessment of nurses' knowledge and ability to assess pain accurately in the population of patients with dementia.

Section 2 highlights scholarly evidence related to the knowledge and attitude of nurses on the aging process and the progression of dementia, bridging the research-practice gap by providing education for the assessment and management of pain in the cognitively impaired older adult, and the utilization of an observational pain assessment tool. This section also discusses Knowles (1981, 2005) adult learning theory. Knowles' theoretical framework motivates and facilitates self-learning among the experienced

nurse, which enhances one's educational level and ability to deliver quality care. Competent nurses educated on the importance of accurate assessment and pain management in residents with dementia will have a profound effect on the residents' overall level of enjoyment and quality of life.

Section 2: Background and Context

Introduction

Self-reporting of pain is the gold standard in health care. However, patients with dementia may be unable to communicate verbally and must rely on nurses and other health care providers to observe for changes in their behavior that may indicate pain (Paulson & Mion, 2014). Identification and management of pain in dementia patients is essential to maintaining function and quality of life. The purpose of the project is to assess the knowledge and beliefs of staff nurses regarding pain assessment and management in patients with dementia. Nurses' knowledge and attitudes toward pain in patients with cognitive impairment is critical in providing supportive and positive care that facilitates the patient feeling valued and included in his or her care.

Concepts, Models, and Theories

Current recommendations from accrediting authorities have implications for nurses providing care for the older adult who is cognitively impaired (The Joint Commission, 2014). An increase in the number of older adults with cognitive impairment, subquality care in pain management in the long-term care setting and the push from special interest groups and accrediting organizations drive the need to educate nurses and enhance competency in assessing and managing pain in this population (Lu & Herr, 2012).

The popularity of improving healthcare and health outcomes with new technology and knowledge necessitates that nurses are life-long learners (McEwen & Willis, 2011). Knowles' (2005) adult learning theory provides an outline of the process of becoming a

self-directed adult learner. In the long-term care setting, nurses have a wide range of

experience (skilled and unskilled) and educational levels (high school diploma or GED to

college prepared) (Bureau of Labor Statistics, 2014). Cook, Moyle, Venturato, Walters,

and Kinnane (2014) suggested that the beliefs, values, life experiences, and the

educational level of nursing staff in the long-term care setting can have positive or

negative effects on the residents who are on the receiving end of that care. Improving the

assessment and management of pain among older adults with cognitive impairment

requires new knowledge and skill. The nursing staff at the DNP project site have a wealth

of experience in caring for the older adult and, according to Knowles, can utilize that

experience as a valuable resource to learn new knowledge and skills.

Knowles' (2005), in the adult learning theory, implied that the learner moves

through six steps of learning which can be utilized to educate nursing staff on how to

assess and manage pain effectively using the PAINAD tool:

- *Need to know* – The DNP project site does not have an approved pain
  assessment tool for dementia patients and the dementia population is
  growing rapidly.
- *Self-concept* – The project site is a medical teaching facility with magnet
  status that encourages nurses to collaborate and implement new evidence
  based knowledge that will improve the quality of patient care as well as
  enhance the professional growth and development of staff.

- *Experience* – The long-term care nursing team members have years of experience in caring for the older adult, through group discussion and case studies nursing staff will learn and retain the newly acquired knowledge.

- *Readiness to learn* – Staff are not aware of new pain standards for cognitively impaired residents or barriers that hinder pain management; new knowledge can be used immediately in daily practice.

- *Orientation to learning* – Utilizing power point presentations and handouts staff will learn pharmacological and nonpharmacological methods for managing pain, how to assess pain in the cognitively impaired older adult, and Joint Commission requirements;

- *Motivation* – Internal motivation: receipt of continuing education hours, evaluation of new program, and offer suggestions for improvements and serve as resource for others as a program is implemented across health care system; external motivation: to meet Joint Commission requirements for pain management in cognitively impaired older adults and the facility's need for documentation of research to practice projects to maintain its magnet status.

In addition, the knowledge to action model (KAM) will be utilized to facilitate the translation of knowledge to practice. The model suggested that the funneling of new knowledge through an action process will help sustain the newly acquired knowledge and result in a greater likelihood of adoption and change in daily practice (McEwen & Willis, 2011). Nursing professionals' responsibility is to identify gaps in practice that effect care

quality, identify knowledge that addresses the gap, implement interventions specific to the clinical area, and translate the new knowledge into practice. White and Dudley-Brown (2012) listed the seven phases of the KAM:

- Identify the problem – absence of a pain assessment tool for dementia patients. Implementation of an educational program that teaches nurses about the aging process, common signs/expressions of pain in cognitively impaired patients, use of an observational tool to assess and manage pain in dementia patients.

- Adapt knowledge to local context – the audience is nurses caring for dementia patients in a long-term nursing facility for veterans.

- Assess barriers to knowledge – lack of educational materials and appropriate tools for assessing pain, and lack of policy for pain management in dementia patients, staff unwillingness to use observational pain assessment tool, lack of support from leadership and physician to implement changes into practice

- Select, tailor, and implement interventions – offer classes on the aging process, the assessment of pain in the older adult with dementia, and how to use the PAINAD pain scale

- Monitor knowledge use – monitor the number of times the nurses use the PAINAD pain scale to assess pain in dementia patients and by selecting and providing appropriate interventions for pain relief

- Evaluate outcomes of knowledge use – monitor behavioral changes in dementia patients (have negative behavioral changes decreased or increased)

- Sustain knowledge use – ongoing training of new staff and implementation in other clinical areas across facility

Relevance to Nursing Practice

Assessment is essential to all areas of nursing care (Cary & Lyder, 2011). Self-reported pain is the gold standard in pain assessment as it provides the most accurate and reliable information (Tracy & Morrison, 2013). However, the patient who has cognitive impairment due to dementia may not be able to provide information about his/her pain. A comprehensive pain assessment incorporates a complete pain history and physical examination that may include information provided by family members or informal caregivers concerning level of cognition and physical ability to function (Paulson, Monroe & Mion, 2014). The assessment of pain provides information that guides the selection of an intervention or plan of care that is appropriate for treatment, monitoring for effectiveness of treatment, and communicating across the continuum of care (Bernhofer & Sorrell, 2012). Limited knowledge and misconception of pain and how to manage it reinforces barriers that limit the use of observational pain tools (Zwakhalen et al. 2007). Nurses play a critical role in implementing effective pain assessment and management strategies into daily practice.

Behavioral, emotional, and functional impairments are consequences related to untreated or undertreated pain in dementia patients (Tsai & Chang, 2004). When

untreated and undertreated pain continues, existing cognitive impairments are

exacerbated and may be manifested in agitation and aggression, which leads to the use of

sedatives and other antipsychotic medications to control negative behavioral outburst

(McAuliffe, Brown, & Fetherstonhaugh, 2012). Nurses are essential members of the

interdisciplinary team who have opportunity to assess, monitor and evaluate pain and

available treatment options.

Local Background and Context

A large number of older adults live in community living centers, also known as

nursing homes, due to various number of health issues that result in the inability of the

patient or family to effectively provide care at home (George Washington University,

2015). High levels of those individuals have dementia or some form of cognitive

impairment. A report from George Washington University (2015) showed that there are

1.5 million individuals living in community living centers who have dementia. The

community living center selected for the DNP project is part of the Veterans Health

Administration (VHA) health care system. It is a part of the fastest growing VHA in the

southeastern region of the U.S. With veterans from the Korean and Vietnam eras

reaching older adult status, the number of veterans seeking care for health care issues

such as dementia will continue to grow (U.S. Department of Veterans Affairs, 2015 &

2016). The community living center for the DNP project is a 45 bed long-term care

facility with approximately half of its veterans having mild, moderate, or severe

dementia. The DNP project site facility uses a numerical pain scale and does not have an

approved pain assessment tool for nonverbal residents. Nursing staff are trained to use the

numerical code 99 when documenting pain which indicates that a resident is nonverbal or unable to communicate due to cognitive impairment. Utilizing such a system does not allow for the accurate assessment and management of pain resulting in poor outcomes in this population of veterans.

Role of the DNP Student

Assessment and management of pain in cognitive-impaired older adults in long-term care facilities is an important matter that should receive great attention from all stakeholders across the healthcare delivery system. The topic of assessing and managing pain is of great significance to the delivery of quality healthcare as the ability to accurately and effectively assess and manage pain is essential in meeting the memory-care provision of care in long-term care facilities (The Joint Commission, 2014). As a DNP student, it is important to identify issues in daily practice and the factors that contribute to the problem and then seek evidence-based solutions to resolve the issue and improve the quality of care delivered. With a large percentage of cognitive-impaired older adults residing in long-term care facilities, the DNP project site makes for the perfect foundation to understand nurses' attitudes, beliefs, and knowledge of assessing and managing pain for this population. As a DNP student, my role is to inquire about issues that affect practice and conduct research that supports the purposed change. In addition, my role is to facilitate the implementation of findings in practice in a manner that aids in the translation of new evidence into practice that ultimately results in the improvement in the quality of care delivered and healthcare outcomes for the targeted population (Zaccagnini & White, 2011).

Summary

The DNP project's focus is determining the knowledge of nursing staff related to pain assessment in patients with dementia. Understanding the knowledge of staff members will help in developing targeted educational materials for assessing pain in dementia patients, which will include the use of the PAINAD pain scale, after assessment of staff nurses' knowledge and beliefs about pain in patients with dementia. The literature supported the need for improvement in the core competencies of nurses who assess and manage pain in the older adult with dementia. Through education, barriers to manage pain effectively in dementia patients can be reduced or eliminated, which can result in a better quality of life for this population.

Section 3: Collection and Analysis of Evidence

Introduction

The literature suggested that a significant proportion of older adults reside in long-term care nursing facilities (Dening, 2014) and that those adults with a diagnosis of dementia often experienced painful conditions that go unidentified or poorly identified and managed (Newton, Reeves, West, & Schofield, 2014). Management of pain in the older adult residing in long-term care nursing facilities continues to challenge medical and nursing health care providers (Russell et al., 2010). The purpose of this quality improvement project is two-fold: (a) assess nursing knowledge of pain assessment and management in a long-term care facility for veterans and (b) develop training and education on population appropriate pain management using the PAINAD pain rating scale. Utilizing a quasi-experimental pretest/posttest design will assist in uncovering nurses' inaccurate beliefs and knowledge of the assessment and management of pain in cognitively impaired older adults. With a quasi-experimental design, a baseline measurement of nurses' attitudes and knowledge can be established before an educational intervention is introduced (Polit & Beck, 2010). Ambiguity is removed through measurements during the gathering of data and the process allows for clear communication of results (Polit & Beck, 2010). This section provides insight into data collection methods and analysis that will be used for the project.

Practice-Focused Question(s)

Hadjistavropoulos, Fitzgerald, and Marchildon (2010) suggested that as high as 80% of older adults living in long-term care nursing facilities experience chronic pain on

a regular basis and that it goes untreated or undertreated, especially among patients with dementia. Lack of familiarity with tools to assess pain in dementia patients limits nurses' ability to care effectively for this population. Therefore, the project question was What is the knowledge of staff nurses at the clinical site regarding pain assessment and management in patients with dementia?

Definition of Terms

Alzheimer's Disease – is the most common cause of dementia. It causes steady loss of memory and the ability to speak and think appropriately and to perform instrumental activities of daily living (Alzheimer's Association, 2016).

Cognitive/Cognition – is relating to or involving conscious intellectual activity such as thinking, reasoning, and remembering (Merriam Webster, 2015).

Dementia – is a loss of mental skills that affect daily life. (Centers for Disease Control and Prevention [CDC], 2013)

Elderly – is used to describe a person who is beyond middle age and approaching old age, also called senior citizen (World Health Organization [WHO], 2016).

Framework – is the abstract structural support that provides a rational guide to conduct nursing research (Grove, Burns, & Gray, 2013).

Memory care requirements – are the Joint Commission care requirements that are focused on the care of individuals with memory impacting conditions such as Alzheimer's Disease (The Joint Commission, 2014).

Pain – "is an unpleasant sensory and emotional experience that is associated with actual or potential tissue damage" (IASP, 2014, para. 1).

PAINAD – is a behavior-observation tool developed for use in nonverbal dementia patients (Warden, Hurley, & Volicer, 2003).

Sources of Evidence

Published Research

A review of the literature regarding older adults with dementia was conducted. Search terms included *older adult*, *pain*, *dementia*, *delirium*, *long-term care*, and *assessment and management of pain*. The search resulted in numerous studies, literature reviews, and articles with a primary focus on assessing and managing pain in the cognitively impaired older adult. Only articles and studies that were conducted on the stated variables were included. Search engines specific to nursing (ProQuest and CINAHL) yielded studies on the assessment of pain in persons with dementia. In addition, internet searches of accreditation agencies such as the Joint Commission and disease-specific organizations such as the Alzheimer's Disease Association yielded articles concerning mandated requirements for long-term care nursing facilities. Of the 16 articles considered, nine were focused on the assessment of pain in the older adult with dementia in skilled nursing care settings; three discussed education, knowledge, and attitudes of nurses caring for dementia patients; and four reported various interventions to enhance the assessment and management of pain as well as barriers to the management of pain in dementia patients.

Newton et al. (2014) discussed the importance of patient-centered care in achieving better assessment and management of pain in dementia patients. Research by Newton et al. and Zwakhalen et al. (2012) suggested that although the incidence of pain

in older adults with dementia is as high as 83%, nurses are positioned to reduce and

eliminated the barriers that continue to result in nontreatment or undertreatment of pain in

this population. Zwakhalen et al. conducted an exploratory, descriptive, observational

study that implemented the use of an observational scale to assess pain. The results of the

study supported the importance of pain management education for nursing staff caring for

cognitively impaired patients.

Paulson, Monroe, and Mion (2014) and Bernhofer and Sorrell (2012) argued that

older adults, especially those with dementia, frequently experience suboptimal pain

management and that the suboptimal treatment of pain can result in the progression of

delirium. Nurses and other health care providers need education on the aging process and

the progression of dementia and the importance of pain management as the combination

of these variables are important factors that may result in the increased probability of

older adult patients developing delirium (Paulson, Monroe, & Mion, 2014). Dening

(2014), Hadjistavropoulos et al. (2010), Miller (2011), and Scherder and Plooij (2012) all

conducted research on the need for appropriate tools for assessing pain in the dementia

patient. A common thread noted throughout the previously mentioned studies was that all

strongly suggested the use and benefits of an observational pain assessment tool.

Scherder and Plooij (2012) discussed how pain assessed in dementia patients is

done irrespective of etiology of the pain. In most long-term care settings, the main cause

of chronic pain in dementia patients is thought to be related to musculoskeletal disorders

(Hadjistavropoulos et al., 2010); however, according to Scherder and Plooij (2012), pain

experienced by dementia patients can be neurological in etiology and the dementia

patient who has a medical history of having a cerebrovascular accident (CVA) may have a more intense experience of pain than a patient without a CVA. Reflective of the DNP project site, there is no observational pain assessment tool available to assess pain in the dementia patient nor is there much attention given to the etiology of pain. Providing an educational foundation geared towards assessment and management of pain in the dementia patient will serve to enhance the quality of care delivered to this population.

Chronic pain effects are a great contributor to the morbidity, mortality, and disability of millions of people (Bernhofer & Sorrell, 2012). The prevalence of chronic pain affects 30% to 40% of the adult population in the United States and continues to be a challenge for health care providers across the country (Gatchel, McGeary, McGeary, & Lippe, 2014). In long-term care settings, the prevalence rate is as high as 40% to 85% (Egan & Cornally, 2013). A study by Gatchel et al. (2014) reported that health care costs associated with chronic pain are estimated to be $560 to $635 billion dollars a year. Understanding nurses' knowledge and beliefs about pain is an important first step in improving the assessment and management of pain.

Evidence Generated for the Doctoral Project

A majority of older adults residing in long-term care facilities experience pain on a daily basis; the addition of cognitive impairment complicates care even more (Tsai & Chang, 2004). It is critical that nurses providing care for this population are competent in assessing and managing pain. The literature indicated that knowledge deficits and fallacies regarding older adults and pain continue to be barriers to assessing and managing pain effectively (Bruneau, 2014). The intent of this project was to assess

nurses' knowledge and beliefs about pain in cognitively-impaired older adults with the intent to use the assessment information to develop an education program to increase awareness and provide knowledge to correct any misconceptions of pain and pain management.

To gain a better understanding of the nurses' knowledge toward pain assessment in the cognitively-impaired adult, I conducted a needs assessment utilizing an existing instrument to measure knowledge in assessing pain in dementia patients (see Appendix A). Understanding the knowledge base of the nurses in this institution will facilitate developing an educational program that is geared toward the adult learner (McEwen & Willis, 2011). Participants in the project were asked to complete a survey that consisted of 16 questions related to their current knowledge and beliefs regarding pain and dementia in the elderly population. Responses to the questions were rated on a 5-point Likert scale: (1) completely disagree, (2) disagree to some extent, (3) no opinion, (4) agree to some extent, to (5) completely agree.

Population and Sampling

The long-term care unit where the project was implemented comprised of both licensed and unlicensed nursing staff. Criteria for inclusion were all nursing staff, male and female, including RNs, LPNs, and CNAs. Participants were English speakers and worked fulltime or part time in the long-term care setting.

Data Collection

Project participants were informed of their right to privacy as their age, gender, job title, years of employment in the nursing profession and long-term/geriatric care,

hours worked per week, and educational level were collected as descriptive demographic variables. No names or medical history information were considered. (see Table 1 and Table 2) for a list of survey variables. Participants in the DNP project were asked to complete a survey to determine knowledge and beliefs about pain in elderly patients with dementia. A copy of the survey is included in Appendix A. Zwakhalen, Hamers, Peijnenburg, and Berger (2007) developed the tool to discover gaps in knowledge based on a group of nurses' educational background and work experience. A letter requesting permission to use the tool was submitted to the creators; I received permission to utilize the survey for the quality improvement project. A copy of the letter permitting use of the survey is included in Appendix B. Zwakhalen et al. hypothesized that nurses with a higher education level and previous work experience would have a wider knowledge base on the assessment and management of pain.

To further ensure the privacy of the nursing staff, a locked collection container was placed on each nursing unit for nursing staff to place completed surveys. The collection containers were left on the nursing units for 2 weeks, allowing all interested nursing staff members the opportunity to participate in completing the survey. At the end of the 2-week collection period, the locked containers were collected from each unit by the unit-based nurse educator and delivered to the project leader. I analyzed the demographic variables and survey answers and the results are stored on my employer-issued computer that is only accessible by my personal identification verification, as required by the Institutional Review Board (IRB). IRB approval (# 03-15-17-0147440) was obtained prior to any data collection for the project.

Data Analysis and Synthesis

The data collected on the survey for the project were summarized in frequencies and percentages using a SPSS software package. Zwakhalen et al. (2007) reported a total survey Cronbach's alpha coefficient of 0.7. The survey's content was expected to demonstrate validity based on the meaning of answers received from the project participants who provide direction on how to proceed with educating nurses to improve the assessment and management of pain for cognitively impaired older adults.

Summary

The literature suggested that the experience of chronic pain is high among the elderly population, especially among those living in long-term care facilities. Understanding nurses' knowledge and beliefs about pain were important in improving the assessment and management of pain for this population. The seven phases of the KAM facilitated translating knowledge to practice. Use of the findings of the project will be important to improve the quality of life for the cognitively-impaired older adults residing in the institution by increasing the competency of the nursing staff members who provide care for them through targeted education. The project involved a cross-sectional survey to assess demographics and the knowledge needs and perceptions about pain of the staff nurses. Deliverables of the project are the results of the knowledge and beliefs assessment, the plan for the dissemination of project findings, and the plan for a subsequent educational intervention.

Section 4: Findings and Recommendations

Introduction

Pain, acute or chronic, is a phenomenon that can be experienced by anyone at any point during the lifespan. However, management of pain in the older adult with cognitive impairment remains a challenge for medical and nursing health care providers in long-term care nursing facilities. The Alzheimer's Association noted in 2012 that there were approximately 5.2 million Americans over the age of 65 who had dementia and 1.5 million of those individuals lived in long-term care facilities (George Washington University, 2015). The WHO (2012) reported that these numbers are expected to double by 2030 and triple by 2050. This forecast gives credence to the significance of addressing this rapidly growing health care issue. Long-term care nursing facilities providing care to dementia patients must use validated nonverbal/noncognitive tools to assess the presence and degree of pain. The goal for this quality improvement project was to promote awareness of observational pain assessment tools and the importance of assessing and managing pain in the dementia patient.

Findings

The purpose of this project was to evaluate nurses working in the long-term care setting to assess their knowledge of assessment and management of pain in cognitively-impaired older adults. A 16-question 5-point Likert scale survey, Self-Assessment of Knowledge in Assessing Pain in Dementia Patients, that included 7 demographic questions, was given to nursing staff working in a long-term care facility for veterans to learn about their knowledge and beliefs toward pain in older adults with cognitive

impairment. Possible answers for the Likert scale for this project were: 1 (completely disagree), 2 (disagree to some extent), 3 (no opinion), 4 (agree to some extent), and 5 (completely agree). The results obtained from data analyzed for this quality improvement project showed similarities as well as some differences between nurses working in long-term care at the project site versus those who work in long-term care facilities in general.

As in most long-term care facilities, the findings showed that the average age of nursing staff is 48 years old and there are more females employed in this area of nursing than males. Long-term care nursing facilities in general have many nursing staff who provide direct patient care and whose education is a high school diploma (GED) or technical training. However, findings from the project study showed a higher number of RNs working directly with patients, which is atypical in the long-term care setting (Bureau of Labor Statistics, 2014). Findings also showed a high number of RNs at the project site were BSN prepared. Table 1 and Table 2 present findings from the survey.

Table 1

Descriptive Statistics for Age and Years in the Nursing Profession

Measure	*n*	Mean	Standard Deviation	Range
Age	20	48.15	9.88	30 to 67
Years in Nursing	27	3.04	1.09	1 to 4

Table 2

Frequencies for Sample Demographics

Characteristic		Count	Percentage
Gender			
	Men	2	7.4
	Women	22	81.5
	Missing	3	11.1
Job Title			
	CNA	6	22.2
	LPN	3	11.1
	RN	18	66.7
Years in LTC			
	1-5	10	37.0
	6-10	4	14.8
	11-15	6	22.2
	20+	5	18.5
	Missing	2	7.4
Hours Worked / Week			
	40	22	81.5
	Missing	5	18.5
Education			
	High School Diploma or GED	2	7.4
	Technical Training	4	14.8
	Some College Courses	2	7.4
	Associate Degree	3	11.1
	BSN	10	37.0
	MSN	4	14.8
	Missing	2	7.4

Pain Management Practice

Long-term care facility nursing staff responses to the Likert scale survey facilitated an investigation into the knowledge and beliefs of nursing staff by calculating percentages of agreement or disagreement with items. The reliability of the questionnaire was assessed using Cronbach's alpha. For the three items on pain management practice, the Cronbach's alpha was 0.85, indicating good reliability. The average response to the questions on pain management practice ($M = 3.74$, $SD = .98$) indicated respondents typically agreed to some extent that pain is assessed and treated correctly where they work. Eighty-five percent of respondents agreed completely or agreed to some extent that (Where I work, pain is assessed correctly, Where I work, pain is treated correctly, and Where I work, much attention is given to pain in dementia patients) pain was managed correctly where they work. Responses to the practice of pain management where they work did not vary by job title ($F = 1.112$, $p = .35$), years employed in long-term care ($F = .321$, $p = .86$), or level of education ($F = .904$, $p = .50$). Figure 1 shows the distribution of average responses to the three items on pain management practice.
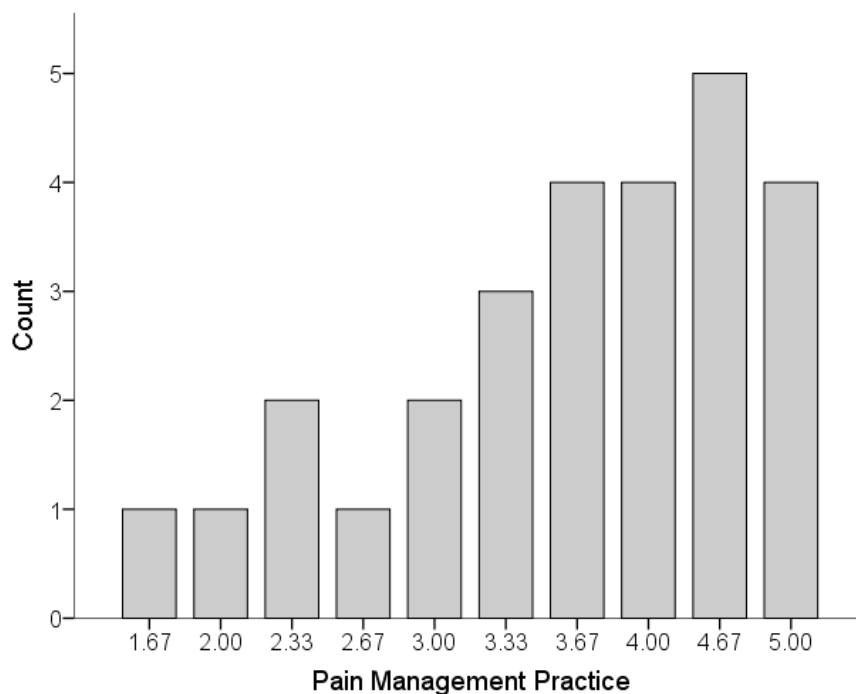
Figure 1.
Distribution of average responses to pain management practice

A discovery noted during the analysis of these data was that although an observational pain assessment tool to assess and manage pain for cognitively impaired patients was not used at the project site, a significant number of nurses believed pain was assessed, managed, and treated correctly where they work. What these data suggest, however, is that how nurses assess and manage pain is based on their beliefs and not evidence.
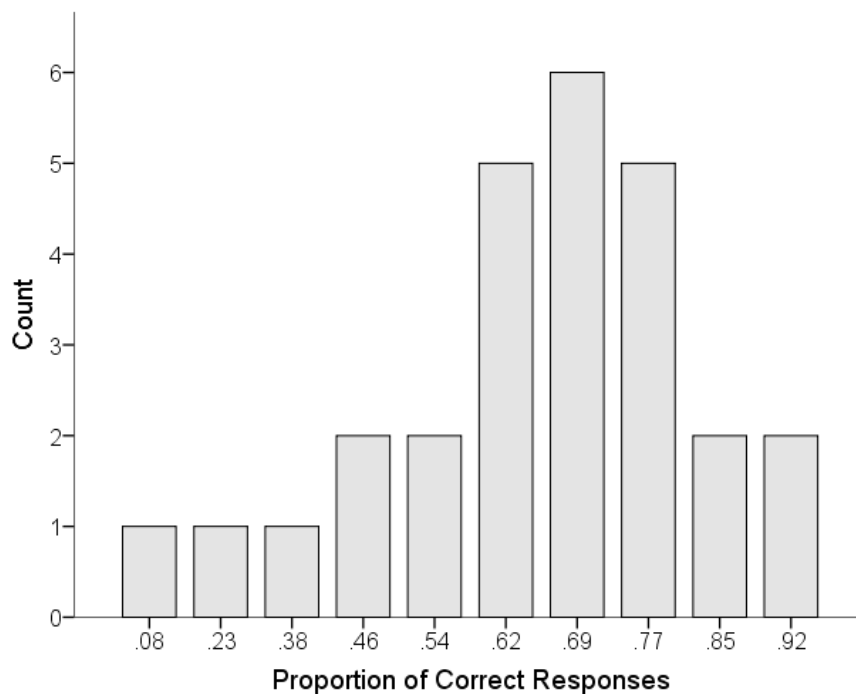
Pain Management Knowledge

Results showed that experience in nursing does not equate to knowledge of assessing and managing pain for cognitively impaired older adults. For the 13 items on pain management knowledge, the Cronbach's alpha was 0.57, indicating poor reliability. Responses to the knowledge survey were initially on a 5-point agreement scale.

Responses were recorded as correct if the respondent agreed to some extent or

completely agreed with a correct statement or if the respondent disagreed to some extent

or completely disagreed with a false statement. Results from the survey revealed that two

of the questions had a high percentage (63%) of nursing staff who answered incorrectly:

Older people are more likely to be affected by pain than younger people; it is better to

administer pain medication when necessary rather than a fixed schedule. Table 3 shows

the proportion of correct and incorrect responses for each of the 13 pain management

knowledge questions. Figure 2 shows the distribution of the proportion of correct

responses by participant. For instance, the histogram shows two participants got 92% of

the responses correct.

Table 3

Proportion of Correct and Incorrect Responses by Statement

Statement	True/False	Percent Correct	Percent Incorrect
Pain medication should only be administered to patients suffering from severe pain	FALSE	89	11
Administering pain medication should be postponed as long as possible, because dementia patients should receive as little pain medication as possible	FALSE	89	4
Older people experience pain less intensely than younger people	FALSE	81	7
A dementia patient should first report pain before receiving the next dose of pain medication	FALSE	81	19
Dementia patients experience less pain than non-dementia patients.	FALSE	78	11
Pain medication, if administered in large quantities easily leads to addiction among the elderly	FALSE	70	19
Assessing pain in a dementia patient is a matter of guessing	FALSE	63	37
Pain is part of the aging process	FALSE	63	30
Pain medication works better in young people than in the elderly	FALSE	59	33
Patients are often prescribed too much pain medication	FALSE	52	33
Pain medication works longer in the elderly than in young people	TRUE	48	44
Older people are more likely to be affected by pain than younger people	FALSE	30	63
It is better to administer pain medication 'when necessary' rather than a fixed schedule	TRUE	30	63

Figure 2.
Distribution of correct responses to pain management knowledge

The proportion of correct responses was not correlated ($r = .05$, $p = .80$) with nurses' perception of the practice of pain management where they work. In other words, nurses with good knowledge of pain management and nurses with poor knowledge of pain management had similar perceptions of the practice of pain management where they work. Knowledge of pain management was not correlated ($r = .13$, $p = .59$) with age and was not correlated ($r = -.07$, $p = .72$) with the number of years in the nursing profession.

Knowledge of pain management varied significantly by job title. RNs ($M = .74$, $SD = .10$) had the best knowledge of pain management, followed by LPNs ($M = .54$, $SD = .13$), and then by CNAs ($M = .40$, $SD = .21$), $F = 16.1$, $p < .001$. Similarly, nurses with an associate degree or higher ($M = .74$, $SD = .09$) had greater knowledge of pain

management than nurses with less than an associate degree ($M = .42$, $SD = .19$), $F = 32.4$,

$p < .001$. Knowledge of pain management in patients with dementia was unrelated to

years of employment in long-term care, $F = 1.04$, $p = .41$.

Recommendations

Assessment and management of pain in older adults with cognitive impairment is

intended to improve quality of care delivered and reduce the underassessment and under

treatment of pain for this population. The evaluation of how pain is assessed and

managed cannot occur without the implementation of a nonverbal/noncognitive tool and

the education of nursing staff on assessing pain in the nonverbal cognitively impaired

older adult. Inclusive of analgesic medications, there are other elements that need to be

included in the management of pain for the nonverbal cognitively impaired older adult.

The interdisciplinary healthcare team needs to develop and implement patient centered

plans of care that support pain management interventions that address physical,

psychological, occupational, and social aspects of pain that will facilitate enhanced

function.

Future pain management and assessment projects should include an

interdisciplinary healthcare team to facilitate the development and implementation of

patient centered plans of care to support pain management interventions that address

physical, psychological, occupational, and social aspects of pain and will enhance

function for this population of cognitively impaired older adults residing in long-term

care facilities. Attention needs to be given to misconceptions about pain management and

nurses' decision-making processes to or not to administer pain medication. Additional

education is needed to heighten awareness and knowledge of nursing staff. A critical link to implementing and sustaining the practice change is to identify a unit-based pain champion to serve as a catalyst to share information between the team and the unit.

These data from literature review and the assessment of staff knowledge can be used to develop an educational intervention. After the education, the same survey can be completed by nursing staff participating in the educational intervention to determine the effectiveness of the education in increasing knowledge.

Strengths and Limitations

Strengths

This project was a needs assessment that utilized a questionnaire to gather information about the knowledge and beliefs of nurses caring for cognitively impaired older adults in a long term care facility. Data collected gave insight into the knowledge and beliefs of nursing staff in the assessment and management of pain of cognitively impaired older adults. Knowles adult learning theory provided appropriate theoretical support for the project. First, supporting the centrality of the theory was the fact that a real-life problem existed, which created a need to know and a readiness to learn. Secondly, the model demonstrated that the long term care nurses from the project site were self directed, which is evident by the number of nurses who hold a BSN degree or higher. In addition, the nurses had a reasonable amount of knowledge related to experience of pain of older people compared to younger people.

Limitations

A limitation of the project was the small sample size of nursing staff who completed the assessment and that only one long term care facility was used. A second limitation of the project was that the nursing staff participating in the project work at a long term care facility for veterans. Working with veterans presents its own set of challenges. Veterans, even those experiencing cognitive decline, may be more stoic than an older adult in the general population. Stoicism in older veterans can be related to military training and the belief that complaining of pain is a sign of weakness (Moore, Grime, Campbell, & Richardson, 2012).

Summary

Understanding nurses' knowledge and beliefs about pain is important in improving the assessment and management of pain for cognitively impaired adults. Positive social change is expected to occur from the assessment of nursing staff knowledge and beliefs. Similar to previous findings reported in the literature, the sample reflected a middle aged, predominately female direct care staff. Unlike other settings, this sample of nurses employed in a VA facility included a high number of RNs with BSN education. Beliefs about pain management practice did not vary by job title, years employed in long term care, nor level of education. Pain management knowledge based on the proportion of correct responses did not vary significantly with nurses' perception of the practice of pain management in the facility, age, nor the number of years employed as a nurse. Knowledge of pain managed did vary significantly by job title and nursing degree; nurses with an associate degree or higher had a higher proportion of correct

responses. However, knowledge of pain management was not significantly related to years employed in long term care. Inservice education based on the findings is expected to improve the quality of life for the cognitively impaired older adults living in the facility by increasing the competency of the nursing staff who provide care for them.

Section 5: Dissemination Plan

Plans for the Project

This project served as the foundation to design an educational program targeted toward improving the assessment and management of pain among older adults with cognitive impairment living at the project site. The results of the project will be disseminated to stakeholders at the project site during the monthly performance improvement committee meeting. The goal for project dissemination is ultimately to develop an educational program that facilitates nurses' abilities in the assessment and management of pain for cognitively impaired older adults across the project facility. Doing so should enhance the quality of care provided by the staff and the quality of life of the cognitively impaired residents.

Self-Analysis

The completion of this DNP project has manifested in personal and professional growth. The design of Walden's DNP program that combines a practicum and mentoring experience has enhanced the understanding and connection between scientific knowledge and evidence based practice. Opportunities for me to analyze new knowledge and implement evidence based solutions to bridge the gap between research and practice were realized throughout the practicum experience.

Practitioner

As a new nurse manager, I was motivated to advocate for the basic assessment and management of pain for cognitively impaired older adults. Utilizing complex decision making during the practicum experience enhanced competencies to expand my

leadership role and to influence the translation of evidenced based nursing care into practice. The opportunity to practice specific leadership skills in the practicum setting increased my confidence in navigating organizational structures and developing relationships with leaders across the healthcare facility.

Scholar

The evolution through this scholarly journey has afforded me new insight into the benefits of a needs assessment project for a long term care nursing facility to enhance the knowledge of nursing staff to assess and manage pain accurately for cognitively impaired older adults. The constructs of the adult learning theory provided support for initiating structures to sustain adult learning. A clear understanding of adult learners' needs, and the provision of necessary resources facilitated the acquisition of new knowledge that can be utilized to achieve better outcomes for the population being served.

Project Manager

It is through clinical scholarship that the doctoral scholar is poised to guide nursing practice and improve outcomes for the population being served. With direction and support of the DNP practicum preceptor, project chair, and leadership at the project site, I have gained confidence to develop collaborative partnerships rooted in mutual respect and commitment. As a DNP-prepared scholar, I have learned to assess the needs of the learner to plan and implement educational activities that are straightforward and designed to enhance the delivery of care and nursing practice. Overseeing the DNP project has ignited the desire to delve deeper into examining methods to influence social change.

Summary

Nurses providing care to older adults with cognitive impairment play an important role in assessing and managing pain. As the use of a nonverbal pain assessment tool is mandated for reimbursement and compliance with regulatory standards nurses, may find that their current pain assessment tool does not allow for adequate assessment and management of pain in the cognitively impaired patient. Providing adequate treatment of pain for this population of patients is contingent upon nurses' accurate and timely assessment and management of pain. Likewise, understanding nurses' knowledge and beliefs about pain is important in improving skills in the assessment and management of pain for this population. The DNP project demonstrated that measuring the knowledge and beliefs of long term care nursing professionals can expedite the development of an effective educational program geared toward the identified needs of the adult learner. In addition, the project demonstrated that experience in a specific area of nursing does not equate to knowledge and care that is evidence based. Similar projects are needed across the spectrum of healthcare to enhance nurses' knowledge of assessing and managing pain.

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Appendix A

Self-Assessment of Knowledge in Assessing Pain in Dementia Patients

Age: _____
Gender: Male_____ Female_____
Job Title: CNA_____ LPN_____ RN_____
No. years in Nursing Profession: 1 – 5_____ 6 – 10_____ 11 – 15_____ 20+_____
No. years in Long-Term/Geriatric Care: 1 – 5_____ 6 – 10_____ 11 – 15_____ 20+_____
No. of hours worked per week: _____
Educational Level: High School Diploma or GED_____ Technical Training_____ Some College
Courses_____
    Associate Degree_____ BSN_____ MSN_____

(Check one response for each statement)	Completely disagree	Disagree to some extent	No opinion	Agree to some extent	Completely agree
Older people experience pain less intensely that younger people.					
Pain medication works better in young people that in the elderly.					
Pain medication works longer in the elderly than in young people.					
Dementia patients experience less pain than non-dementia patients.					
Assessing pain in a dementia patient is a matter of guessing.					
Where I work, pain is assessed correctly					
Where I work, pain is treated correctly					
Where I work, much attention is gen to pain in dementia patients.					

Pain medication should only be administered to patients suffering from severe pain.				
Patients are often prescribed too much pain medication				
It is better to administer pain medication 'when necessary' rather than a fixed schedule.				
Administering pain medication should be postponed as long as possible, because dementia patients should receive as little pain medication as possible.				
A dementia patient should first report pain before receiving the next dose of pain medication.				
Pain is part of the aging process.				
Older people are more likely to be affected by pain than younger people.				
Pain medication, if administered in large quantities easily leads to addiction among the elderly.				

Appendix B

Request for permission

Zwakhalen S (HSR) <s.zwakhalen@maastrichtuniversity.nl>

Reply all|

Tue 5/17/2016, 5:02 AM
Norma Boone <norma.boone@waldenu.edu>
Starred
Flag for follow up.

Dear Nomr,a you have my permission. I would highly appreciate it if you keep me informed, bw
Sandra

From: Norma Boone <norma.boone@waldenu.edu>
Sent: Friday, May 13, 2016 9:27 PM
To: Zwakhalen S (HSR)
Subject: Request for permission

May 13, 2016

Re: Request for Permission for Questionnaire Use

Dear Dr. Zwakhalen:

This a request for permission to use the questionnaire developed in your research: Zwakhalen,
Hamers, Peijenburg & Berger, 2007: Nursing staff knowledge and beliefs about pain in
elderly nursing home residents with dementia.

I am a nurse manager of a geriatric/long-term care unit in the Veterans Health Administration
healthcare system and have an interest in improving the quality of care received by elderly
patients who are cognitively impaired. I am pursuing the Doctor of Nursing Practice degree,
which is a clinical doctorate. Requirements of the doctoral program include the completion of a
scholarly project which demonstrates the translation of research into practice.

The aim of my capstone project is to increase the knowledge of nursing staff in the assessment
and management of pain in the cognitively impaired older adult. An educational intervention
will be conducted utilizing the PAINAD Scale (Pain Assessment in Advanced Dementia Scale).

I am requesting permission to use your validated questionnaire in its entirety as a means of
evaluating change in knowledge regarding pain and the assessment and management of
pain among nursing staff providing care to this population.

Thank you for your consideration of my request

Sincerely,
Norma J. Boone
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