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A Nursing Education Program to Decrease Use of Psychotropics Among Dementia Patients

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This is to certify that the doctoral study by

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Abstract

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MSN, Maryville University, 2014

BSN, American Sentinel University, 2012

Project Submitted in Partial Fulfillment

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Doctor of Nursing Practice

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Abstract

Dementia, a clinical condition that affects the psychological ability of patients, is distinguished by a significant overall decline in cognitive function that results in distorted perception. Guiding nursing practice in the long-term care (LTC) setting to decrease the unnecessary use of psychotropics is critical because doing so relates to the patients' quality of life and safety. In the LTC facility that served as the practicum site for this study, there was an observed overuse of psychotropic medications in the care of patients with dementia. The practice-focused question guiding this project asked whether a nursing staff development program would decrease the use of psychotropics in dementia patients. The purpose of the project was to inform nursing staff through an educational program on alternative methods to use when dementia patients exhibit increased disturbing behaviors. The conceptual framework for the project was the knowledge-to-action model. The nursing staff development program had a positive effect on the nursing staff as evidenced by a statistically significant improvement in knowledge and attitudes about the use of psychotropics in caring for dementia patients. The use of psychotropic in the dementia patient decreased from 22.32% to 15.77%, the lowest score achieved by the organization in 5 years. The dementia patients benefited from this project and its positive social change implications for nursing practice by decreasing dementia patients use of psychotropics, minimizing their side effects to the patients and providing an overall feeling of well-being.

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Dedication

This project is dedicated with love and heart felt affection and thanks to my patient and encouraging and much-loved husband Zalmon Blackmon of twenty-two years, my praying mother Iris, my loving patient sons Javon, Chancellor and Shaquille Blackmon. The friends who bring me joy and laughter; Stacy, Simona, Dinetta and Mia. Much gratitude goes to Myra Johnson who assisted and encouraged me every day and much thanks to my super supportive boss Travis Harper who unknowingly showed daily encouragement.

Throughout this journey you all have contributed to the joy and laughter of my hard days; your sole commitment and friendship is in my heart forever. I thank and love you all.

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Section 1: Nature of the Project

Introduction

The term *dementia* refers to a collection of symptoms caused by syndromes that affect the brain, causing a decline in cognitive function. Patients with dementia are often unable to think through basic activities such as eating or getting dressed, and they often have difficulty with problem-solving, impulse control, or regulating emotions (Hugo & Ggulian, 2014). Treatment with psychotropic medications remains very common in U.S. nursing homes despite extensive data demonstrating marginal clinical benefits and serious adverse effects, including death (Briesacher, Tija, Field, Peterson, & Gurwitz, 2013). At the long-term care (LTC) practice site where I conducted this project, psychotropic medications have been the most common nursing response to aggressive and disruptive behaviors. Generally, alternative measures have not been used to decrease problem behaviors among dementia patients. Nurses at the site reported that they administer these medications because patients are agitated, aggressive, and disruptive during their therapeutic care (Kirkham et al., 2017).

Overusing psychotropic medications for patients with dementia in the LTC facility presented a significant practice issue at the project site. Nurses' use of these medications for managing aggressive behaviors showed a knowledge deficit among the nursing staff regarding alternatives with fewer risks and greater benefits to patients. I determined that providing education about controlling aggressive behaviors without using psychotropics could help to ensure better outcomes on the units and for other patients and employees.

This DNP project involved creating an evidenced-based staff development program for nurses that focused on various methods to reduce the use of psychotropics in the LTC facility through alternative approaches for behavior management. This DNP project created a positive social change by reducing dependence on psychotropics, improving the patient's quality of life, and improving nursing practice for the many patients who suffer with dementia behavioral disturbances (see Raymond, Warner, & Davies, 2013).

Problem Statement

The nursing problem at the LTC practice site was the overuse of psychotropic medications among dementia patients. According to the director of nursing, nursing staff often feel overwhelmed and need to be able to control patients' impulsive behaviors to provide daily care and services. As a result, and because the nurses lack effective solutions, they have used the most expedient and easiest solution, psychotropic medications. These nurses benefited from additional education that provided them with alternatives to psychotropic drugs for behavioral management for patients with dementia. This is particularly important for the facility's older dementia patients who have a greater risk of experiencing adverse health events because of psychotropic medication (see Young, Shin, et al., 2015).

I conducted this doctoral research project at a 388-bed LTC facility in a large city situated in the Southeastern United States. The significance of this issue and problem was evident in the quality measures that the facility's leaders review each month, given that the number of patients who re medicated with psychotropic medications far exceeded

comparative benchmark data collected by CMS in the nursing home compare program. The unnecessary use of psychotropic medications among LTC patients with dementia remained among the most significant challenges when dealing with this vulnerable population, particularly when addressing behavioral difficulties (see Gurwitz, Bonner, & Berwick, 2017).

In LTC facilities, a quality data score compares all nursing homes in the state of Georgia on psychotropic medication use. The quality data score for the project facility was 22.32% in November 2017. The state mean was less than 18.8%, and the national average was less than 15.8% (Centers for Medicare and Medicaid Services, 2017). This high rate of psychotropic use indicated that a program to manage patients without relying on these medications was warranted.

The significance of this project for nursing practice was decreasing the overuse of psychotropic medication in the treatment of patients with dementia. Reducing psychotropic medications enhanced nurses' connection to patient-centered care while improving quality of life in elderly LTC dementia patients (see Aarabi, Cheraghi, & Ghiyasvandian, 2015). Families, caregivers, and other stakeholders were also involved in treatments for dementia and decreasing the use of psychotropics, which resulted in dementia patients themselves becoming more involved in activities, reconnecting to family members, and showing other positive reactions before their disruptive behaviors became uncontrollable (see Bowblis et al., 2015).

My objective for nurses at the site was to augment their levels of nursing knowledge associated with evidence-based choices to avoid disruptive patient behavior

without the use of psychotropic medication. Dealing with aging dementia patients involves multidimensional decision-making when assessing and evaluating them. These nursing skills begin with education, and one major area of education should be on psychotropic drug use and the use of alternative approaches to behavior management (Cioltan et al., 2017). Decreasing the use of psychotropics increases the dementia patients' involvement in daily activities and assists nurses in becoming more engaged with their patients while enhancing their health and safety (Huybrechts et al., 2012).

Purpose

The goal of this project was to create a nursing staff development program on alternative methods for behavior management for patients with dementia in an LTC facility to reduce the use of psychotropic medications. Typically, when patients at the LTC practice site demonstrate aggressive behaviors, nursing staff members have immediately medicated the patients. This is the tried-and-true solution which is dictated by habit, not by evidence, and represents the key gap in these nurses' practice. This gap was particularly pronounced because nurses did not see that there were any other effective choices to control these aggressive patient behaviors. An educational program presenting evidence-based alternatives to deal with aggressive patient behaviors resulting from dementia was a promising solution to the high use of psychotropic medications at the practice site. The benefits to patients are noteworthy, because reducing the use of psychotropic medications reduced the associated risks (Kirkham et al., 2017). Furthermore, decreasing the use of psychotropic medications allows patients to become more immersed in activities, which reduces aggressive behaviors related to their

condition (Bowblis et al., 2015). Nurses who are tenured at the site had not been exposed to alternative patient management strategies because most have been in the facility over 11 years as licensed practical nurses (LPNs) without additional evidenced-based practice knowledge. Because nurses were not familiar with and had not used alternative methods instead of administering psychotropics, these nurses continued to care for the patients in the same programmed approach as they had done for many years.

The following practice-focused question guided this project: Can a nursing staff development program on non-medication-based methods of behavior management be developed based on existing evidence-based research? Implementing such a project caused the site's nursing staff to focus on the gap in practice and assisted the staff to improve dementia care through providing other ways to manage psychotic behaviors before administering psychotropic medications. Additionally, the nursing staff development program promoted improvements in developing nurses' confidence and fostered consistency in treatment to improve patient outcomes and quality of care.

Nature of the Project

To collect evidence for this project, I searched PubMed, CINAHL, Medline, and Google Scholar, in addition to clinical guidelines of practice for dementia patients from the American Medical Directors Association (AMDA). I accessed the databases through the Walden University library. Key nursing journals that I used were *American Journal of Nursing, Journal of Dementia Care, Journal of the American Geriatrics Society,* and *Journal of Gerontology and Geriatric Research*. In addition, I searched official nursing websites for information and white papers on the topic. I graded the evidence using

Melnyk's hierarchy of evidence decision-making matrix and then synthesized it to apply the best practices from literature to the educational program (see Melnyk & Fineout-Overholt, 2015).

The LTC nurses were often not prepared to intervene with problematic behavior demonstrated by dementia patients, and they were not familiar with alternative, non-pharmacological methods to calm these patients (see Tija et al., 2014). Nurses were frequently requested to address behaviors that put the patient or others at risk (see Gitlin, Kales, & Lyketsos, 2013). Evidence-based alternative interventions include a variety of approaches. Alternative strategies include identifying if a resident may be disruptive because of the need for toileting, decreasing environmental stimulation, or just providing a peaceful area (AMDA, 2012). Many patients may display agitated behavior because of unrelieved pain; patients with dementia are unable to voice their needs (AMDA, 2012). Patients with dementia are often depressed, and they may exhibit behaviors like unrelieved crying, which may be a manifestation of depression and potentially a precursor to agitation. Clinical depression is a behavioral and psychological symptom of dementia (Tampi, Hassell, Joshi, & Tampi, 2017). There is reliable evidence that multicomponent group activities decrease aggression and anxiety in dementia patients and improve daily quality of life (McDermott et al., 2018). Additionally, there are other alternative approaches such as pet therapy, massage, and aromatherapy which can ameliorate some of the agitation and aggressive behaviors. Even the smallest of changes may have a significant effect (Bowblis, Lucas, & Brunt, 2015). Currently at the LTC DNP project site there are 47 licensed practical nurses with 11 years or greater of LTC

experience. These nurses benefited from the evidence-based training I developed that supported them in assessing and evaluating patients. Furthermore, nurses were provided with options other than pharmacology when confronted with disruptive behaviors in patients. In addition, nursing staff were trained upon hire and monthly on these alternative treatments through the staff development project. The purpose of the project was to improve LTC nursing practice and to address the gap in practice regarding evidence-based behavior management strategies for patients with dementia.

Significance

Approximately one-third of patients who have dementia live in long-term care facilities and are treated with psychotropic medications (Kirkham et al., 2017). The World Health Organization (WHO, 2017) reported that dementia is a chief cause of debility and dependence among older adults worldwide. The impact of dementia on families, societies, and caregivers is often psychological, physical, social, and economic (WHO, 2017). Worldwide, about 50 million patients suffer from dementia, with almost 60% residing in low- and middle-income countries. Approximately 10 million new cases are identified yearly (WHO, 2017). Dementia has considerable economic and social consequences, including indirect social and medical care expenses as well as the costs of unofficial care. In 2015, the entire global collective cost of dementia was assessed to be $818 billion (WHO, 2017).

The project's stakeholders include families, patients, nursing staff, the facility administrator, and the medical director. When family members visit the LTC facility, they are often shocked by the behaviors that dementia patients exhibit. Stabilizing their

loved one's actions helped to promote family support. The nursing staff were impacted by improved nursing practices that pertained to effectively managing this population of patients without overuse of medications. The administrator saw improved scores on the CMS quality measure for psychotropic medication reduction in LTC patients, which resulted in increased Medicaid reimbursements. The medical director was able to reduce prescriptions for psychotropic medications, which improved patient safety and decreased the need to prescribe psychotropic medications to manage dementia patients.

This DNP project contributed to nursing practice by improving quality of life for patients because many residents experience side effects of psychotropic medications, including cardiac events, falls, and escalated rates of mortality (see Gellad et al., 2012). These potential implications affect not only LTC practice, but also similar nursing practice areas such as assisted living facilities, home healthcare agencies, and primary care facilities since these institutions also seek to enhance the dementia patient's quality of life. Also, this project helped nurses to decrease stigma surrounding dementia in practice by providing them with the means to engage in honest discussions with caregivers to find more effective ways of managing problematic behavior (see Rose & Lopez, 2012). Nurses who know non-pharmacological methods of managing patient behavior can assist other staff and families dealing with dementia patients in creating a healthy support system while also reducing caregiver stress (Brodaty & Donkin, 2009).

This doctoral project is transferable to areas of similar practice, which is important because the number of Americans with dementia is projected to increase as the population ages (Riley, Burgener, & Buckwalter, 2015). This increase in the number of

dementia patients will produce a substantial need for effective strategies to decrease the overuse of psychotropic medication for behavior management. At the practice site, each unit received training on alternative methods of treating outbursts stemming from dementia that do not rely on psychotropic medications. Beyond the practice site organization, I disseminated the staff development program at LTC meetings that deal with dementia patients and psychotropics. The WHO (2017) stated that a care path that can quickly react to changes and embrace regular reexamination and reevaluation is key to refining the care of patients with dementia.

This project's implications for positive social change began with steps to enhance dementia patients' quality of life. The first step was to provide means to treat their disruptive behaviors without overly relying on pharmaceuticals. This resulted in freedom from side effects from medicines, being less sedated in daily life, and feeling healthier in mind and body.

Summary

Dementia is a condition in which patients display significant cognitive impairment such as memory loss, lack of attention, agitation, and inability to make decisions. Recommending psychotropic medications in dementia patients had become a common practice in treating impulsive and agitated behaviors. Data from my project site indicated that psychotropic medications were overused for behavior in dementia patients. To address the gap-in-practice at this facility, I created a nursing staff development program that focused on alternative methods for dealing with problematic behaviors and lessening the concurrent use of psychotropic medications. Providing the nursing staff

with alternative methods of behavior management enhanced the quality of life for dementia patients in LTC and decreased the overuse of these medicines. Reducing pharmacological treatments for disruptive behavior in dementia patients was the essential mission for this DNP staff development program.

Section 2: Background and Context

Introduction

Psychotropic medications are drugs that can affect a person's psychological performance and alter thoughts, reasoning, and behavior. The word psychotropic derives from the Greek term *psycho*, meaning "brain," and *tropic*, meaning "revolving" (Goeman et al., 2015). Psychotropic drugs are described as a comprehensive class of medications used in treating symptoms of anxiety, depression, mental health disorders, bipolar disorders, schizophrenia, and some disruptive behaviors such as aggression (National Institute of Mental Health, 2016). Martinez, Jones, and Rietbrock (2013) stated that psychotropic medicines have often been recommended as the first pharmacological treatment for dementia patients, although their use is associated with several significant concerns such as an increased mortality risk, cardiac dysrhythmias, cerebrovascular episodes, somnolence, and an increased speed in cognitive decline efficiency (Martinez, Jones, & Rietbrock, 2013). Evidence continues to show that using psychotropic medications in dementia patients is associated with an increased risk of mortality as a result of the cerebrovascular events and cardiac episodes that weaken the heart muscle in the elderly and patients with dementia (Claudio et al., 2014).

Antipsychotic medications continue to be frequently administered to patients with dementia despite their recognized adverse effects (Gellad et al., 2012). Concerns with the well-being and safety of dementia patients dictate that use of psychotropics in dementia patients should be short-term or not all (Mast et al., 2016) Diminishing the excessive use of psychographics among dementia patients must be the focus by increasing awareness

through education. Education and training may lead to the decrease in psychotropic use and thus the decrease in potential adverse effects associated with these medications (Kirkham et al., 2017). Goeman et al. (2015) stated that when psychotropics are used for the treatment of a diagnosed psychiatric disease, these drugs can enhance the quality of life for those patients. However, when used for dementia-related behaviors, they have been shown to have little effect on disruptive, agitated, or aggressive behaviors (Goeman et al., 2015).

The practice problem I addressed this project was the overuse of psychotropics in the LTC practice. The project involved developing and implementing an education program on a variety of techniques to assist nurses in decreasing the administration of psychotropic medication. Nurses who care for patients with dementia need a support program that includes education on suitable behavioral interventions for patient management (Goeman et al., 2015) Therefore, the purpose of this DNP project was to develop a nursing education program that would incorporate alternative methods for managing behaviors of patients with dementia with a goal of diminishing the use of psychotropic drugs.

In Section 2 , I discuss concepts, models, and the theory I used to present the evidence to LTC nursing staff regarding the care of dementia patients with behavior disturbances. Furthermore, I introduce various alternative interventions that can be used with dementia patients to decrease psychotropic use. I also clarify terms used in this project, and I clarify the relevance to nursing practice by giving the local background and

context and discussing the role. Finally; I provide an overall picture of the staff development programs project team.

Concepts, Models, and Theories

Evidence-based practice (EBP) has a positive impact on patient care. EBP is the meticulous, precise, and prudent application of current scientific consensus to the care and safety of the individual patient. It involves mixing individual clinical knowledge with the best available current research (Reid, Briggs, Carlisle, Scott, & Lewis, 2017). Melnyk and Fineout-Overholt (2015) stated that the search for the best evidence essentially begins with examining the concepts, models, and theories of the practice issue.

Care of the Dementia Patient

Dementia is often the primary reason for the loss of daily independent functioning, cognitive awareness, decision making, and other frustrations that lead to agitation and anxiety in elderly patients (WHO, 2017). Dementia has a significant financial, social, and psychological impact on health care workers and health care expenses in the United States (WHO, 2017). When dementia patients begin to exhibit disturbing behaviors such as aggression and anxiety, nursing staff often administer psychotropic medications to treat the behaviors (Kirkham et al., 2017). The cognitive deterioration, the regression of memory, perception issues, and everyday care challenges influence the daily lives of patients who have dementia (Kneale, Thomas, & Harris, 2015). When memory, orientation, and the ability to comprehend fail, even the daily needs of a dementia patient will deteriorate and cause new challenging behaviors that also impact the patients' care and quality of life (Briesacher et al., 2013).

In dementia patients, once the challenging behaviors impact the care that staff attempt to provide, nurses begin to administer psychotropics as a means to treat or reduce these behaviors (Kirkham et al., 2017). The education program I developed to decrease the use of psychotropics led to shifts of behaviors in nurses who treat patients with dementia and ultimately positively impacted dementia patients, nursing staff, and families in the LTC practice.

Alternatives to Psychotropics in Dementia Patients

There are increasing numbers of older patients globally with a diagnosis of dementia. An additional 1 million patients with dementia are estimated worldwide by 2030 (Kirkham et al., 2017). In practice, 80% of dementia patients exhibit behaviors and emotional symptoms that result in substantial distress for persons around them (Kirkham et al., 2017).

Non-pharmacological approaches in handling the emotional and behavioral fluctuations related to dementia are necessary because of the increased frequency and percentage of patients who experience adverse effects of pharmacological medications (Garrido et al., 2017). These nonpharmacological approaches include (a) recreational therapy, (b) aromatherapy therapy, (c) music therapy, and (d) massage therapy

Recreational therapy is a non-pharmacological approach to disruptive behaviors that can increase a patient's positive state and decrease behavior symptoms, leading to favorable results over time (Smit, Lange, Willemse, & Pot, 2017). Remarkable differences are seen when patients are taken outside to participate in activities such as gardening and watering flowers. In addition, patients who play board games, toss balls to

each other, and assemble puzzles with staff support also exhibit a decrease in behavioral symptoms (Smit et al., 2017).

Another alternative treatment is aromatherapy. Aromatherapy is an alternative method that has been reinforced by clinical evidence for controlling aggression and agitation in dementia patients (Scuteri et al., 2017). Aromatherapy is considered a segment of phytotherapy that uses oils extracted from different aromatic plants. These aromas can be administered by inhalation therapy or topical application (Scuteri et al., 2017). For example, the sense of smell can be used to settle disruptive behaviors in dementia patients (Fu, Moyle, & Cooke, 2013). The evidence supporting the efficacy of aromatherapy using lavender, as a non-psychotropic therapy for dementia patients, is substantial. (Scuteri et al., 2017). Scuteri et al. (2017) noted that molecular mechanisms of aromatherapy might explain the effects of essential oils on the sense of smell in dementia patients (Scuteri et al., 2017).

Music therapy is another common nonpharmacological means of treating behavioral and emotional symptoms of dementia. Music therapy may include various approaches including musical engagement such as singing or playing a musical instrument, as well as listening to music (Garrido et al., 2017). Music as an intervention has shown promise in reducing agitation and aggression in dementia patients (Pederson, Anderson, Lugo, Andreassen, & Sutterlin, 2017). Musical interventions can be used in various practice settings. When dementia patients participate actively with dancing, singing, or playing an instrument, they seem to experience more joy. In many dementia

patients, just listening to music even without being actively engaged produces positive effects (Pederson et al., 2017).

Another alternative method for managing agitation is massage therapy. Massage therapy has been recommended as a non-pharmacological intervention for dementia patients to offset demonstrations of cognitive decline and behavior disturbances that include agitation and anxiety (Abraha et al., 2017). Fu et al. (2013) conducted a single-blinded randomized controlled trial over a 6-week period with 67 patients with a dementia diagnosis and a history of disruptive behaviors. These patients received a hand massage that resulted in a decrease in their agitation during the episode (Fu et al., 2013).

Many settings encourage family participation, but many patients do not have family relationships, or their families are not sure how they can assist. Therefore, many caregivers may choose to use reminiscence therapy as a non-pharmacological intervention. This intervention involves discussing patients' past experiences, events, and activities with participating family members and others (Abraha et al., 2017). These discussions use resources such as books, photographs, newspapers, and recognizable objects from a patient's past to stimulate recollections (Abraha et al., 2017). The focus of their review is simulated presence therapy (SPT), in which video or audiotape recordings of family members are played to the person with dementia (Abraha et al., 2016). Reminiscence therapy allows patients to hear the voice of their family members and feel reassured, decreasing anxiety and reducing agitation (Abraha et al., 2016).

Irazoki, Garcia, Sanchez, and Martin (2017) initially included 14 studies in their systematic review and meta-analysis. These studies (a) used a randomized control trial

approach or quasi-experimental design, (b) were published between 2004 and 2016, and (c) involved patients who presented with a diagnosis of dementia who received group reminiscence therapy. One study was omitted from the meta-analysis because it did not include the necessary statistics. The researchers calculated the effect size for each study and converted these to standard scores. In comparing *z* scores across all 13 studies, they noted that the dementia patients experienced an improvement in cognition, the $dMR = 0.26$; $p = 0.0006$; $i2 = 0\%$, which was greater than the control group which was at $dc = 0.37$; $p = 0.005$; $i2 = 0\%$. However, there were no effects related to mood, behavioral alterations, quality of life or daily activities. Irazoki et al. concluded that reminiscence therapy has the potential to be a valuable psychosocial intervention for patients with dementia (Irazoki, 2017).

One of the most significant issues for nursing staff is the display of challenging behaviors amongst patients with dementia. One of the many steps in managing these behaviors is analyzing the causes, addressing patients need for pain medication, incontinence care, or hunger (Halek, Holle, & Bartholomeyczik, 2017). One additional process to assist nurses in the caring for patients with dementia is discerning why these behaviors are occurring and understanding the motivating cause. Addressing the cause of the behavior can also assist in determining the alternative strategies that may be used to decrease the behaviors and help in the care of the dementia patient (Halek et al., 2017).

Many alternative approaches can be used to support caregivers in dealing with disruptive behaviors in patients with dementia. The strategies and standard practices used at my project site had been limited to administering psychotropic medications, and none

of these alternatives had been presented to staff in an educational context. Additional methods had not been used with dementia patients in this practice setting because it was much easier to receive an order from the physician to medicate the patients. The gap in practice was the nurses' lack of awareness of different treatment approaches. Previously, the past standard practice to address this gap-in-practice was limited to an annual nursing training on dealing with disruptive patients. This training only encouraged the administration of psychotropics and nothing else. Therefore, the nurses benefited from additional education to provide them with alternatives methods in managing and dealing with disruptive behaviors in the LTC setting. Using psychotropic medications with the sedating effects and other potential adverse effects does not facilitate a more person-centered care model or best practice.

Knowledge-to-Action Model

The knowledge-to-action model provided the theoretical framework for a synthesized and guided approach to the staff development project. Dr. Ian Graham and collaborators at the University of Ottawa formed the knowledge-to-action (KTA) model as a combination of tools to be used in applying knowledge gained through research in clinical practice (Graham, Tetroe, & KT Theories and Research Group, 2007). Straus, Tetroe, and Graham (2009) state that in health care knowledge translation rationalizes research findings to improve health care among patients (Straus, Tetroe, & Graham, 2009). The KTA model assisted in disseminating research and making sense of the relations between information, interventions, and implementation for stakeholders of a new program. The knowledge to action model also helped to identify the program's

sources, actions, and targeted listeners, as well as determining if successful outcomes have been achieved (Rohwer, Pfadenhauer, & Burns, 2017). The KTA model assisted nursing staff in understanding current knowledge about alternative methods for managing dementia patients' behavior. Also, KTA was used to confirm that the findings are transferable in practice (Graham, Tetroe, & KT Theories Research Group, 2007).

Care and Comfort Theory

Nearly four million patients are diagnosed with dementia, and dementia patients exhibit some of the most challenging behaviors for clinicians and caregivers. Care and comfort are essential parts of dealing with aggressive behaviors in dementia patients. Therefore, I will be using the Kolcaba care and comfort theory in this DNP project to enhance the quality of care dementia patients receive (Dettmore, Kolanowski, & Boustani, 2009). The Kolcaba theory of comfort was used in this DNP project to create a staff development program on various alternative therapies that will improve the quality of life for patients with dementia. Kolcaba (2001) stated that patients have implicit and explicit comfort requirements. When these are appropriately addressed, patients are strengthened and motivated. A patient's comfort needs may be driven by the nursing care that is individualized, creative, and holistic. Nurses should control environmental conditions and adjust to improve patient comfort which may also decrease disruptive, aggressive behaviors (Kolcaba, 2001). Kolcaba (2016) noted that comfort should focus on the psychological aspects of the patient as well. For example, after dealing with a patient's anxiety and agitation using an alternative method, a patient may feel a state of ease (Kolcaba, 2016).

Clarification of Terms

Aromatherapy: Aromatherapy is the use of aromatic plant extracts and essential oils in massage or as ambient scents (Scuteri et al., 2017).

Dementia: Dementia refers to a collection of symptoms caused by syndromes that affect the brain and cause a decline in cognitive function (Hugo & Ggulian, 2014).

Long-term care: Long-term care refers to an assortment of services which assist in meeting the medical and non-medical needs of individuals with chronic illnesses or disabilities who cannot care for themselves. Long-term care is dedicated to individual and coordinated care services that encourage independence to increase patients' quality of life and meet the patients' needs (Centers for Medicare and Medicaid Services, 2017).

Music therapy: Music therapy is the clinical use of evidence-based music interventions to achieve individual needs and goals (Garrido et al., 2017).

Reminiscence therapy: Reminiscence therapy is a non-pharmacological mediation that consists of discussing past experiences, activities, and events with patients, family members, and others (Abraha et al., 2017).

Relevance to Nursing Practice

A nursing education program to decrease the use of psychotropics among dementia patients has been viewed as instrumental in changing patient-centered care. The broader issue in nursing practice in which this project is embedded examines reducing psychotropics and increasing awareness surrounding the potential side effects associated with psychotropic medications (Kirkham et al., 2017). A nursing education program to decrease the use of psychotropics in practice on alternate methods such as using music

therapy, therapy that involves pets and massage therapy all have the potential to impact and reduce the use of psychotropics among patients (Bowblis, Lucas, & Brunt, 2015). Although nonpharmacological therapies are suggested as first-line treatments for dementia patients, alternative approaches are often not used in clinical practice because of a lack of knowledge among care providers (Kirkham et al., 2017). Burke, Mahin, and Stussman (2015) showed that the lack of knowledge among nurses influenced the use of common alternative health practices, regardless of the potential positive outcomes (Burke et al., 2015). Nurse competency in treating dementia patients with unconventional approaches were improved to provide enhanced patient-centered care (Lin, Hsieh, & Lin, 2012). Education was required for improved knowledge in the care of dementia patients and their accompanying behavioral disturbances. To increase nurses' lack of knowledge, facilities continue to develop education programs that involve an emphasis on alternative strategies, nonpharmacological interventions, and dementia-specific training to minimize the use of psychotropic medications (Martin et al., 2016).

Over the last decade, an increasing number of patients with dementia is creating a considerable burden on the healthcare system, and additional nursing education programs are needed to impact the quality of care with these patients (Lindelof et al., 2017). This doctoral project of educating nurses about evidence-based research alternatives helped to fill the gap in practice by assisting nurses in exploring the many alternative perspectives and alternative methods that could be used. This project improved treatment outcomes, care outcomes, and overall safety of older patients by using non-pharmacological strategies. A few evidence-based approaches for disruptive behaviors that were revealed

in the literature suggest various therapies such as music therapy, aromatherapy, massage, pet therapy and reminiscence therapy. Because dementia patients are residing in settings other than an LTC facility, this staff development project may affect different comparable practice settings. Using alternative methods decreased the use of psychotropics and minimized the associated risk for dementia patients while assisting in advancing nurses in their practice (Alsaway, Mansell, McEvoy, & Tai, 2017).

Local Background and Context

The issue at the center of this doctoral project occurs at a 388-bed LTC facility in a large city situated in the Southeastern United States. The LTC facility's beds are all certified Medicaid and Medicare beds. The LTC facility serves both male and female patients who need skilled nursing care and sub-acute rehabilitative care. The problem of overmedication at the facility was displayed in quality measures that are reviewed monthly. Because the monthly state and national quality measures show a very high prevalence of psychotropic usage among dementia patients, a staff development educational program on dealing with alternative strategies was implemented. This helped to answer the project's main practice question: Can a nursing staff development program decrease the use of psychotropics in dementia patients?

Annear et al. (2015) state that acquiring current knowledge around alternative strategies in dealing with dementia patients can enhance the dignity, independence, and safety of these patients without the use of psychotropics (Annear et al., 2015). The overuse of psychotropic medications among LTC patients with dementia persists,

especially when concentrating on the treatment of behavioral problems (Gurwitz, Bonner, & Berwick, 2017).

Annear et al. (2015) state that acquiring current knowledge around alternative strategies in dealing with disturbances in dementia patients can enhance and maintain the dignity, independence, and safety of these patients without the use of psychotropics (Annear et al., 2015The redundant over-use of psychotropic medications with the LTC patients with dementia persists when dealing with this vulnerable patient population, specifically when concentrating on treatment of behavioral problems (Gurwitz, Bonner, & Berwick, 2017).

Regarding institutional context, the facility had an overall Medicare average 4-star quality rating for Georgia nursing homes. The facility is designed as a home-like setting with private rooms, semi-private rooms, day rooms, and many dining rooms. The regulatory environment as governed by CMS remains at only one deficiency in nursing for patients and meets 13 out of 15 of the quality measures, except for the quality measures that address the use of psychotropics; this measure is not being met. The institution had made it a goal to decrease the number of patients on psychotropic medications. This doctoral project influenced the use of psychotropics in this LTC facility and improved quality measures, patient care, and better patient outcomes.

The number of dementia patients with behavioral disturbances is growing worldwide, and with these numbers, the need for data about dementia behavioral disturbance is increasing. (Annear et al., 2015) Currently, roughly fifty million people worldwide are identified with dementia, equating to 10 million new dementia cases

yearly (WHO, 2017). Current treatments for dementia cannot provide a cure. The treatment and management of the behavioral aspects of dementia remain a challenge for nurses and providers. The WHO (2017) noted that dementia is very costly to treat and manage. Because of its extensive prevalence, dementia is of great significance in current local nursing practice (WHO, 2017).

Role of the DNP Student

In this DNP project, I served as the project leader, and I was also a nursing leader in an administrative position at the site, involved in the LTC facility's quality measures surrounding the administration of psychotropics. I planned, shaped, implemented and assessed the creation of a staff development program to educate nurses on alternatives to medication when managing disruptive behaviors among dementia patients. As a nursing leader once the DNP project was completed, I had the opportunity to support staff member's use of alternatives, and ultimately reduce their dependence on psychotropics to control dementia patients' disruptive, aggressive, and agitated behaviors.

As a nursing leader at the site, I was at ease with the nursing staff and patient needs. In many meetings with the nurses, I observed the nurses' frustration in dealing with so many dementia patients who exhibit very disruptive behaviors. Therefore, my motivation to address this topic emerged from my desire to meet the needs of the patient population by providing the nursing staff with evidence-based strategies to decrease the overuse of psychotropics in the dementia population and to also decrease the side effects that impact the patient's safety and quality of life. The overall goal of this project was to

enhance patients' quality of life by lessening harm which represents a significant positive social change for this patient population.

The potential bias identified was that we were focusing strictly on the dementia patients. However, the steps taken towards minimizing this bias was to ensure after the project was implemented, the knowledge gained would also help other patients who receive psychotropic medications for behavior management. Also, fewer psychotropic medications administered to dementia patients could improve patient safety and reduce additional cognitive impairments resulting from medication side effects (Helvik et al., 2017).

Project Team

The project team contributing members included the activities director, one nurse manager, nurse administrator and a nurse from each unit who were involved in the daily direct care of dementia patients on the units. The contributing team members gave their perspective at the site that assisted in reviewing the literature-based findings and other input that finalized the project. A meeting was planned for the contributors and any other additional healthcare clinicians who would like to attend and benefit from the project. At the meeting, the contributors were presented with background data, evidence, and additional forms of information in a presentation. The presentation included powerpoint slides to communicate the staff education project. Extra time was set aside at the meeting for contributors to give feedback or insight and ask questions to assist in finalizing the staff education program.

Summary

Dementia patients have various issues when coping with their diagnosis and the disturbing behaviors that accompany this condition. Alternative methods should be utilized instead of administering psychotropic medications as a result of the adverse side effects that may occur. There are many alternative methods that can be used such as the use of aromatherapy Fu, Moyle, & Cooke, 2013), music (Garrido et al., 2017), massage (Abraha et al., 2017), reminiscence therapy (Irazoki et al., 2017) and attention to basic needs (Halek, et al, 2017). These recent and relevant research studies formed the basis of the evidence on useful, non-pharmacologic strategies that I used to guide and develop the staff development educational program, which is outlined in Section 3.

Section 3: Collection and Analysis of Evidence

Introduction

Dementia as a disease has increased in the last decade and has had an incredible impact on health care throughout the world. Clinical indications of dementia include a deterioration in memory and additional cognitive functions along with behavioral and psychosomatic signs of dementia (Karlsson, Hallberg, Midiov, & Fagerstrom, 2017). Treatment alternatives have involved the use of psychotropics, even though it is recognized that psychotropic treatment should be avoided when treating individuals with dementia (Karlsson et al., 2017).

Roughly, a third of the patients with dementia are presently treated with psychotropic medications (Kirkham et al., 2017) Psychotropics may be suggested for short-term use only in dementia patients, and concerns for patient safety really limit their use at all, especially when it is for expediency and when there is no therapeutic indication (Mast et al., 2016). Reducing the unnecessary use of psychotropics among patients with dementia has continued to be a focus in geriatric setting to decrease their potential side effects (Kirkham et al., 2017). Possible side effects are drug-induced sudden cardiac death and ventricular arrhythmia (Leonard et al., 2013). There are numerous approaches or alternative methods that need to be used to limit the use of psychotics among patients with dementia. To address the practice problem, I developed an evidence-based education program for nurses to guide them in using alternative methods to decrease the use of psychotropics in the LTC facility among dementia residents.

The nursing staff who deal with these patients and their behaviors directly are chiefly responsible for their care; my role as nurse executive was to make sure that they had the most recent evidence at hand to guide their practice. Decreasing the use of psychotropic medications was achieved by using alternative methods instead of treating behaviors with psychotropic medications. Education on alternate methods such as reminiscence, aroma, music, pets, and massage therapy reduced nurses' use of antipsychotics among dementia patients (see Bowblis, Lucas, & Brunt, 2015).

Practice-Focused Question

The practice-focused question was: Can a nursing education program on using alternative methods before administering psychotropic medications be developed based on existing evidence? To answer this question, I developed a nursing education program to provide nurses at the LTC facility education and training on using alternative approaches before administering psychotropic prescriptions.

Sources of Evidence

Published Outcomes and Research

I gathered sources of evidence for this project from the CINAHL, MEDLINE OVID, Google Scholar, and PubMed databases, which led me to such journals as *Geriatric Nursing* and the *New England Journal of Medicine*. Current clinical guidelines in practice were also searched. There are many current studies that describe psychotropic overuse in LTC.

Content for the education and training was generated by extricating relevant dementia patient information from articles and peer-reviewed journals. Key search terms

included but were not limited to *behavioral disturbances, behaviors, geriatric dementia, geriatrics, elderly dementia, older patients, antipsychotics*, and *psychotropics*. Along with the resources to organize the literature for an education program, the literature review also increased my understanding of the research to disseminate the most current evidenced-based information for the nursing teams education program.

Evidence Generated for the Doctoral Project

Participants. The participants included 17 licensed practical nurses (LPNs) who were new to the organization as well as those nurses with over 10 years of service, for a total of 47 nurses. The nurses at this practice site have an average tenure of 15 years or greater. New nurses and tenured nursing staff were chosen because these were the staff members who were currently relying on the use of psychotropic medications to decrease the behaviors in the dementia patients in the DNP project setting. In addition, 110 certified nursing assistants (CNAs) were included as participants because they were the front-line staff who assisted patients with the activities of daily living with the dementia patients and were instrumental in assisting with massage therapy and reminiscent therapy.

The gap in practice of the nursing staff was apparent because they used the same methods (call the physician to get a prn order for psychotropic medications) that they had used for many years. Their practice was not guided by the most recent evidence. The knowledge deficits were notable with the nursing staff given that they were not presently using alternative methods to manage disruptive behaviors in the patients with dementia. Research has shown that alternative methods such as reminiscence, music, or massage

therapy lessen the use of psychotropics among dementia patients (Bowblis, Lucas, & Brunt, 2015).

Qualitatively, nurses had raised their objections to using alternative methods with concerns that these methods may not work with very aggressive and violent behaviors. An additional concern nursing staff member raised was that they are often limited in the amount of time that they can spend with patients; therefore, they may not be able to assist with various alternative approaches in caring for disruptive behavior. However, the nursing staff was given every opportunity and every tool needed to increase the success of the program and to ensure that the impact not only developed the nursing staff clinically, but also impacted the quality of life for all the patients, especially the patients with dementia.

Procedures. I provided the education in a 1-hour in-service presentation that explained the problems with using psychotropic medications and provided details on the use of the alternatives (see Appendix A for an overview of the curriculum). On an ongoing basis, the educational program would be provided to new hires at orientation. I provided the educational content to current staff and will continue to do so every month with separate meetings with the LPNs and CNAs. This education program assisted with the current knowledge deficit related to recognizing when to use alternate methods to manage disruptive behaviors in dementia patients. This DNP project instructed nursing staff on alternative approaches to employ before administering psychotropic medications.

Prior to the training, participants took a brief pre-test that I used to assess their current knowledge and attitudes. The first 10 questions of the test measured knowledge,

with 0 points for each wrong answer and 10 points for each correct answer. Each participant could earn a score that ranged from 0 to 100 points, with 0 indicating no knowledge on the use of psychotropics in dementia, and 100 indicating an acceptable level of knowledge.

After the training, I asked the participants to complete a posttest using the slides to evaluate the extent to which the LPNs and CNAs had (a) assimilated the content, and (b) changed their attitudes towards the use of psychotropics and the potential for using alternatives. The Older Age Psychotropic Quiz (OAPQ; Brown & Westbury, 2016) provided the basis for the pretest and the posttest and was used with permission of the authors (see Appendix B). In addition to the OAPQ, I used the attitudes scale, which had 10 questions to measure positive or negative attitudes towards the use of psychotropics and the use of alternatives in the dementia patient. A score of 10 indicated a negative attitude, and a score of 50 indicated a very positive attitude towards management of the dementia patient without psychotropics.

My plan was to evaluate the achievement of project goals by using this tool to measure knowledge of appropriate psychotropic medication usage and attitudes related to the evidence presented. I also used the evaluation to examine whether there was a change in nurses' attitudes and knowledge towards psychotropics with dementia patients and alternative methods**.** There is evidence that the OAPQ has construct validity and test-retest reliability for stability (Brown & Westbury, 2016), indicating that the tool could be used with nursing staff in the nursing home or LTC setting. The OAPQ tool offered an

uncomplicated, short, and efficient way of evaluating knowledge of psychotropic medication use among nursing home staff (see Brown & Westbury, 2016).

After the test were completed and collected, I held a debriefing session with the staff members asking them open-ended questions (see Appendix C) about their willingness to try alternative methods, giving them opportunity to voice their objections, working to persuade them that these alternative methods could be effective in reducing disruptive behaviors in patients with dementia. Flanagan, Greenfield, Coad, and Neilson, (2015) found that face-to-face debriefing after a questionnaire promotes more authentic responses and appears to be additionally effective in facilitating better comprehension of the research questions and subject matter for the participants involved (Flanagan et al., 2015). Additionally, qualitative approaches such as pre- and post-test with the teams are instrumental in identifying the impact of the educational program on the stakeholders and measuring their knowledge and understanding (O'Cathain et al., 2014).

Protections. I took measures to ensure ethical protection of all participants. The nurses and CNAs participated anonymously. In addition, all information from the survey was protected and kept confidential while safeguarding all privacy and anonymity. The healthcare organization leaders for the practice setting saw merit in this doctoral project and signed consent provided in the educational manual. I proceeded to get approval from the Walden University IRB to conduct the doctoral project using the education manual as a guide; my IRB approval number is 07-25-18-0579168.

Analysis and Synthesis

The purpose of the quantitative assessment was to ensure that the nurses participating in the project would demonstrate an understanding of the alternative methods used with dementia patients to shape their attitudes and approach with patients. I used non-parametric statistics to determine if there was a statistically significant change in knowledge and attitudes. Qualitative data from the open-ended questions were summarized thematically. Educating nursing staff and developing a staff development program addressed and spoke to the practice-focused question.

Summary

In summation, I gathered reliable evidenced-based practice data, educational sources, strategies, and alternative practices used in the care of patients with dementia-associated behaviors in the LTC facility. I focused specifically on the overuse of psychotropic medications and alternative methods that could be used to decrease the current overuse. Alternative interventional methods have shown success in managing disruptive behaviors in dementia patients, and the use of different strategies have even deterred behaviors while also decreasing psychotropic overuse in nursing home patients.

Section 4: Findings and Recommendations

Introduction

Dementia is a progressive condition that affects over 50 million patients globally. Dementia affects the brain and alters the daily cognitive function that impacts a patient's ability to get dressed, eat independently, solve problems, and even control impulses. The WHO (2017) noted that the burden of dementia on families and caregivers is often emotional, social, physical, and economic. Roughly 10 million additional cases are recognized on a yearly basis. Dementia continues to have significant social and economic effects. The WHO noted that in 2015 the international combined cost of dementia was over $818 billion and continues to rise.

Most patients who suffer with dementia live in nursing homes, and caregivers find it very difficult to care for these patients because they often exhibit disruptive behaviors that impact caregivers' successful care provision (Kirkham et al., 2017). In the past, when caregivers have complained to nurses about aggressive and disruptive behaviors, nurses in the LTC setting that served as the site for this DNP project have relied on what they perceive as the most convenient solution, which is to medicate dementia patients with psychotropic medications. Many psychotropic medications cause adverse side effects such as tardive dyskinesia, swallowing difficulties, choking, and cardiac events, which result in death (Martinez et al., 2013). Therefore, my goal for this project was to implement a staff development program that would include various non-pharmacological interventions to better manage anxious and agitated patients, decrease the risks of adverse side effects, provide a better quality of life for the dementia patients, and change the

attitudes and behaviors of nursing staff regarding alternative methods of treatment. In the project, I evaluated nursing staff knowledge, attitudes, and practices in the long-term facility to ensure that the nursing staff participating in the project would understanding and use the alternative methods with dementia patients to improve their care.

Additionally, I established a framework of evidence in relation to the topic by conducting a literature review. In the review of literature, I conducted searches in PubMed, CINAHL, MEDLINE, OVID, Google Scholar, and a variety of nursing journals to obtain evidence and information for the staff education program. Key search terms included but were not limited to *behavioral disturbances, behaviors, geriatric dementia, geriatrics, elderly dementia, older patients, antipsychotics,* and *psychotropics*. The results included references to over 90 sources. Finally, I used the knowledge-to-action model to provide the theoretical framework for a synthesized and guided approach to the staff development project and Kolcaba's theory of comfort to enhance the quality of care dementia patients received throughout the program's implementation.

Findings and Implications

Over a 4-week period, I provided staff development education to close to 180 nursing staff members including LPNs, CNAs, and nurse managers twice daily (see Table 1).

Table 1

Educational Program Attendance by Job Role

Sessions	LPN	RN	CNA	NM	Total
Dayshift sessions	32	7	59	4	102
Nightshift sessions	34	3	39	0	76
Total	66	10	98	4	178

Every meeting lasted approximately 1 hour and provided engaging feedback and comments. First, I began by reviewing the Walden University consent form. Second, I started the education program by discussing the facility's quality measures and its failure in meeting the state and national averages, which indicated overuse of psychotropic medications. In fact, the organization had never met the standards and the staff needed to understand the reasons it did not meet the state and national standards. I discussed the top five psychotropics that are overused in the facility while identifying their adverse side effects. Next, I provided the pretest and then completed the staff development education with a slide show. During the slide show, I introduced a crate called the *calming crate*. This crate is a soothing color of blue that includes the following; a laminated list of contents in the crate which include: massage oils in the scent of grapefruit, lavender, and rosemary, and lotions for massages. I also announced that the facility had installed, on each unit, a mounted atomizer that blows a fragrance at least 25 feet every cycle of either grapefruit, lavender, or rosemary. Next, I showed the staff the CD player and a CD that included soothing ocean and rain sounds for music therapy. We discussed reminiscent

therapy and included the role of families in this alternative. I also asked the staff to invite families to bring in pictures from the patient's past to refresh positive memories. Finally, we discussed recreational therapy and the puzzles included in the crate. I also discussed our new vendor contract with a farmer who is going to develop a dementia garden. This garden will be in one of our many outside courtyards and will include a butterfly garden, herb garden, flowers for the residents to care for, and a vegetable garden for residents to pick, wash, and eat the vegetables grown there. The training concluded with a posttest and follow-up feedback. The pretest included 10 questions from the OAPQ (Brown & Westbury, 2016; Appendix B) and 10 questions on participants 'attitudes (Appendix B).

The OAPQ knowledge questions were scored as either correct or incorrect, and each of the correct answers was given a score of 10 points. Thus, the knowledge questions were summed to a score which could range from a low of 0 (indicating all questions were answered incorrectly), to a perfect score of 100% (indicating that all 10 questions were answered correctly). The 10 attitude questions were measured on a 5-point Likert type scale where a score of 1 indicated strong agreement with the stem statement and a score of 5 indicated strong disagreement. There were five items that needed to be reverse-scored (Items 11, 13, 14, 17 and 20; see Appendix B). Therefore, when the 10 attitude questions were summed, scores could potentially range from a low of 10 to a high of 50; low scores indicate attitudes consistent with the use of non-pharmacological alternatives to manage dementia patients while higher scores represent negative attitudes and the use of psychotropics. The survey results showed that the average (or mean) scores for the pre- and posttests on knowledge, and the average scores

on the pre- and posttests on attitudes all improved after the educational sessions (see Table 2).

Table 2

Descriptive Statistics Knowledge and Attitude Survey Scores

Scores	*N*	Minimum	Maximum	Mean	Standard Deviation
Knowledge pretest sum score	177	30.00	100.00	83.1977	14.23745
Knowledge posttest sum score	175	91.00	100.00	99.9486	00.68034
Attitude pretest sum score	178	14.00	50.00	26.9607	4.74355
Attitude posttest sum score	178	24.00	47.00	33.0393	3.60063
Valid *N* (listwise)	174				

Sample size was adequate, the data were measured at the interval level, and the data were normally distributed. As a result, I used the parametric paired *t* test to determine if the change in scores was statistically significant. The change in knowledge scores using a paired *t* test using a two-tailed test was significant at the $p = .000$ level ($n = 173$). Similarly, the change in attitude sum scores and $p = .000$ for the change in attitudes for the entire sample of paired scores ($n = 177$). I also examined the demographics to determine whether there were any differences in subgroups by role, unit, gender, or age. There were no differences in knowledge or attitude scores before or after the educational session between the subgroups with one exception. A one-way ANOVA was used with a Tukey's range test to determine the focus of the differences between groups. On the knowledge pretest, there was a difference between LPNs and CNA/Techs, $F = 3.944$ with 2 *df* and $p = .021$, which makes sense given the educational backgrounds of LPNs as opposed to CNA/techs. On the knowledge posttest scores, there were no statistically

significant differences between groups. All improved as a result of their participation in the educational sessions.

In the debriefing, finished with the following questions: Are you willing to try these alternative methods, why or why not? What are some of your concerns about reducing dependence on medications to manage the dementia patient without psychotropics? The feedback I received was that they were willing to attempt the new approaches, they had their minimal concerns addressed, and the feedback was honest and in consideration of the patients.

Subjective comments were also expressed that showed that the staff development program was really needed and appreciated. The greatest implication of the staff development program is the impact on quality of life it will have on the facility's patients. The staff education program assisted in enhancing the knowledge of the facility's nurses, CNAs, and nurse managers, which subsequently changed their attitudes towards alternative methods in dealing with disruptive dementia patients and reaffirmed their commitment to care that they provide for the LTC residents daily. The qualitative data obtained during the debriefing session showed how attitudes had changed, with staff actually believing that alternative methods can work if attempted with dementia patients. One nursing staff member stated, "I actually feel confident in utilizing other methods other than medication now that we have resources and know what will work."

The nursing home quality measure report had a score of 22.32% in November 2017, showing that the facility had an issue with overuse of psychotropics. The state mean average is less than 18.71%, and the national average is less than 15.48%. As of

September 6, 2018, following implementation of my project, the facility quality data score was at 18.14 %. Currently, as of October 4, 2018, the facility score is 15.77%, benchmarking this facility at the lowest it has been in the past 5 years.

The knowledge-to-action model was also effective in giving a step by step process in the implementation of the staff development program. The model permitted me to provide the nursing staff simplicity concerning the various alternative methods that could be used in lieu of pharmacological resources. The staff education program was very appreciated among nursing staff and other stakeholders in the facility; they felt the impact would have a tremendously important influence on the dementia patient's quality of life and an incredible relevance to the nursing practice.

Nursing staff and stakeholders acknowledged that the staff education on aromatherapy, music therapy, and recreational, reminiscence, and massage therapies produced positive inspiration and encouragement that supported Kolcaba's theory of comfort (2016). Kolcaba (2016) noted that those working to provide comfort should focus on managing anxiety and agitation using alternative methods to create a feeling of relaxation, well-being, and ease. Since the educational sessions occurred, the dementia patients have been observably happier and engaged in the various alternative therapies offered by staff. These alternatives have reduced the incidence of disruptive behaviors in this population of patients as noted by a decrease in calls to physicians for psychotropic medication orders, a decrease in falls related to patients becoming aggressive, and an overall increase in the participation of patients in the activities throughout the building.

Nursing staff's responsiveness in caring properly for those who suffer with dementia-related behaviors and the management of these patients represents a significant positive social change in the LTC setting that was the subject of this DNP project. The impact of this positive social change is apparent on the dementia LTC units in the day to day operations. That is, the alternative methods seem to be well-used by nurse and technician staff members alike, there are fewer family complaints about disruptive behaviors, and the impact on quality measures for the use of psychotropic medications is promising.

Recommendations

During planning many nurses shared that they did not believe that alternative methods could decrease patient behaviors because there were no scenarios to relate to. The recommended solution that will address this and the gap in practice is to create an ongoing staff development initiative that represents the day to day scenarios that are relatable to the resident setting. Identifying a better way to translate knowledge from research to practice can result in streamlined educational training to staff in a way that is easily understood; this, in turn, can improve the patient outcomes in any practice (Thompson, Fazio, Krusta, Patrick, & Stanley, 2016). Thus, the content offered in the DNP project educational sessions will be expanded to include real scenarios since the use of alternatives has been implemented, incorporated into orientation, and developed as an annual competency for all staff.

Strengths and Limitations of the Project

This staff development education program had several strengths. First, I thoroughly researched the literature on dementia and psychotropic medications, which formed the basis of the educational program. Implementation of the staff education program, even with small lectures, can be challenging and exhausting, but I achieved the training with a total of 178 participants, representing 99.7% of the staff working on the 6 patient units at the time of project implementation. Nonetheless, the most important strength was that the project was embraced, and nursing staff showed an enthusiasm and commitment to attempt the project.

There were few limitations of this staff development project. Certainly, the time needed for the nursing staff to take out of their busy day to learn the desired change presented a challenge for the nurse managers and staff members alike. I recommend that in the future, the organization finds creative ways to accommodate staff and not interfere with an already busy day. I also recommend using the same tools in educating the staff with tests, slides, and feedback, and continuing the use of this content in orientation and in annual competency checks. These were all effective in the dissemination of information to the nursing staff.

Section 5: Dissemination Plan:

Based on the great feedback from the nursing team I plan to distribute the staff education program in orientation to all new nursing staff. Since this practice problem is prevalent and influences all patients with dementia I will inform additional nursing homes about this program while also reaching out to the professional organizations affiliated with long term care. I will also share these successes at annual meetings.

Analysis of Self

My role as a DNP-prepared nurse is to assist in preparing practice scholars to lead research and improve healthcare (AACN, 2006). As a Doctorate in Nursing Practice scholar, I have developed in the roles of leader and educator. The most important experience for me as a leader is connecting nursing staff to a purpose; the purpose to impact change and quality of healthcare for all patients in long-term care. White et al. (2016) stated that the success of the organization is contingent on connecting people with purpose. Translating evidence into practice delivers a great avenue through which leaders can complete and achieve these connections and improve outcomes for patients, organizations, and communities. The challenge to leaders is in creating an environment and culture that can help patients flourish and assist employees become in caring for older adult patients while connecting people to purpose (White et al., 2016). Furthermore, the translation of practice on my experiences has allowed me to gain additional insight, especially on the importance of correctly disseminating research information in a direct and understandable manner. This project has allowed me to grow tremendously in translating and disseminating research-based knowledge to the nursing staff.

In addition, the education on using alternative methods instead of psychotropic medication in dealing with difficult behaviors has shown me the genuine commitment of my nursing staff to providing care in the most qualified way. In general, this experience has been very positive, and it will continue to enrich my knowledge on the population of patients that I am responsible for everyday in LTC.

Summary

This doctoral project has provided education and resources to many nursing staff members who share in the daily care of dementia patients. Since this DNP project started, dementia patients in the project facility have received minimal psychotropics and the psychotropic committee has continued meeting weekly to evaluate additional patients in the facility who receive psychotropic medications. Ongoing current education on this subject matter will still be necessary to permit nursing staff who care for dementia patients to broaden their expertise and proficiencies, which will assist in maintaining the efforts from the trainings to remain viable in the LTC facility.

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Appendix A: Overview of Educational Program Curriculum

Title of Project: A Nursing Education Program to Decrease Use of Psychotropics among Dementia Patients

Practice Focused Question: Can a nursing staff development program on non-medication-based methods of behavior management be developed based on existing evidence-based research?

Objectives: Concluding this educational experience, the participants will be able to:	Content Outline	Evidence:	Method of Presenting:	Method of Evaluation: Pre-Test Post- Test (Number of questions)	Evidence Grade:
1. Define the significance and the purpose of the educational program for decreasing the use of psychotropics among dementia patients and using alternative methods	A. Introduction 1. Project significance a. Dementia is a complex collection of syndromes that is illustrated in 1. Cognitive function, 2. Mood, and 3. Behaviors b. Treatment	A1 a. Hugo & Ggulian, (2014) b. Briesacher, Tija, Field, Peterson, & Gurwitz, (2013) c.	Group sessions with Oral and PowerPoint presentation Group sessions with Oral and PowerPoint presentation Group sessions with Oral and PowerPoint	10	A1. a. Level VI b. Level V c. Level V

	of dementia patients 1. Psychotropics c. Adverse effects of psychotropics 1. Cardiovascular effects 2. Cerebrovascular episodes 3. Increased Somnolence 4. Increased mortality risk 2. Purpose of program: A. Introduction to EBP on alternative methods instead of using psychotropic medications - 1. Recreat	Martinez, Jones, & Rietbrock, (2013) A2 a. Garrido et al., (2017)	presentation Group sessions with Oral and PowerPoint presentation	10	A2. a. Level V

	ional therapy 2. Aromatherapy 3. Music therapy 4. Massage therapy 3. Project team contributing members: o Activities director, one nurse manager and the nurse administrator; o One nurse from each unit; o One certified nursing assistant from each				

	unit				
2. Explain the significance in decreasing psychotropic medications	B. Background 1. Dementia socioeconomic effects a. Dementia has a significant financial, social, and psychological impact on health care workers and health care expenses in the U.S. b. World wide, about 50 million patients suffer from dementia, with almost 60% residing in low- and middle-	B1. World Health Organization, (2017) World Health Organization, (2017) Kirkham et al., (2017) Huybrechts et al., (2012)	Group sessions with Oral and PowerPoint presentation	10	B1. Level II Level II Level VI Level VI

	income countries. Approximately 10 million new cases are identified yearly c. Approximately one-third of patients who have dementia live in long-term care facilities and are treated with psychotropic medications d. Decreasing the use of psychotropics will increase the dementia	Aarabi, Cheraghi, & Ghiyasvandian, (2015). B2. Helvik et al., (2017)	Group sessions with Oral and PowerPoint presentation Group sessions with Oral and PowerPoint presentation	10 10	Level V Level V

	patients' involvement in activities, e. Reducing psychotropic medications will enhance nurses' connection to patient-centered care while improving quality of life in elderly LTC 2. Comorbid factors that are associated with psychotropic use: a. Anxiety b. Cardiac disease c. Cerebrovascular				

	accident d. Dysphagia 3. Contributing factors for the use of psychotropics a. The most expedient and easiest solution to patient behavior b. Inadequate assessment or cause of behavior. c. Unfamiliar knowledge of alternative methods				
3. State the reason for increasing the knowledge of nursing staff to use alternative methods instead of	C. 1. Reduce the use of psychotropic medications 2. Decrease the risks associated		Group sessions with Oral and PowerPoint presentation	10	

psychotropics	with the use of psychotropic medications 3. Allow patients to become more engaged in activities 4. Improve the dementia patient's overall quality of life				

Appendix B: Pretest and Posttest Assessing Knowledge

Circle one answer for each of the following questions.

When you have finished, check to make sure you have completed all questions.

1. Risperidone is most effective for the treatment of which behavior?
    a. calling out
    b. wandering
    c. aggression
    d. repetitive questioning
    e. don't know
2. The maximum recommended daily dose of risperidone in older people with dementia is:
    a. 2 mg
    b. 1 mg
    c. 4 mg
    d. 3mg
    e. don't know
3. Which of the following adverse effects is NOT usually associated with the use of olanzapine?
    a. stroke
    b. falls
    c. raised blood sugar
    d. reflux
    e. don't know
4. Regular reviews of antipsychotics in residents with dementia should be performed every:
    a. 6 weeks
    b. 3 months
    c. 6 months
    d. 12 months
    e. don't know
5. The drug diazepam is mainly used to treat:
    a. depression
    b. agitation
    c. infection
    d. anxiety
    e. don't know

6. Which of the following adverse effects is NOT commonly associated with oxazepam use?
    a. falls
    b. memory impairment
    c. nausea
    d. confusion
    e. don't know
7. What is the recommended duration of temazepam treatment for sleep disorder?
    a. 1-2 weeks
    b. 6 weeks
    c. 1 month
    d. 3 months
    e. don't know
8. The recommended medication for long-term treatment of anxiety in older people is:
    a. temazepam
    b. an SSRI (e.g. sertraline)
    c. risperidone
    d. oxazepam
    e. don't know
9. Amitriptyline (Endep) is recommended as a night time sedative in older people.
    a. true
    b. false
    c. don't know
10. Quetiapine (Seroquel) is licensed to treat:
    a. dementia
    b. schizophrenia
    c. anxiety
    d. insomnia
    e. don't know
11. In my experience, medication management is the best and most effective way to manage disruptive behaviors in dementia patients:
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
12. I am open to trying alternative methods to manage disruptive behaviors in dementia patients
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree

    d. Disagree
    e. Strongly disagree
13. Most physicians understand the need for medication management in dementia patients, and just take a very little bit of persuasion to get an order:
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
14. I have not tried reminiscence therapy with dementia patients, I am having trouble believing that it works to reduce disruptive behaviors
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
15. Massage therapy is a safe and effective interventions that does calm agitated dementia patients.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
16. Aromatherapy really does help to create an environment for the dementia patient such that harsh medications (like psychotropics) are not needed to manage assertive behaviors
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
17. The side effects of psychotropic medications are minimal and really outweigh the benefits
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
18. Recently published research studies confirm that the effects of psychotropic medications are more harmful than beneficial in the dementia patient
    a. Strongly agree

b. Agree
c. Neither agree nor disagree
d. Disagree
e. Strongly disagree

19. Medication management in the dementia patient is a form of chemical restraint, and as such is not really the best choice to manage assertive dementia patients.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
20. All dementia patients exhibit aggressive or disruptive behavior at one time or another, and it is really best to have a prn order on hand.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

The first 10 questions on this survey comprise the Older Age Psychotropic Quiz (OAPQ) and are used with permission of the authors, Donnamay Tegan Brown, and Juanita Louise Westbury, see permission below.

Appendix C: Open-Ended Questions on Attitudes for the Debriefing

To what extent do you have a level of comfort that alternative methods are effective in managing disruptive behaviors in patients with dementia?

Are you willing to try these alternative methods? Please explain why or why not?

What are your concerns about reducing dependence on medications to manage assertive and aggressive behaviors in the dementia patient?