

2018

Nonpharmacological Behavioral Interventions for Patients with Dementia: An Integrative Literature Review

Michelle Monique Spears
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Michelle Spears

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Robert McWhirt, Committee Chairperson, Nursing Faculty
Dr. Janine Stoddard Everett, Committee Member, Nursing Faculty
Dr. Patricia Schweickert, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2018

Abstract

Nonpharmacological Behavioral Interventions for Patients with Dementia: An Integrative
Literature Review

By

Michelle M. Spears

MSN, Widener University, 2009

BSN, Eastern University, 2005

Project Submitted in Partial Fulfillment
Of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2018

Abstract

The use of antipsychotic medications in older adults with dementia increases risk of mortality; therefore, it is critical that nurses use nonpharmacological interventions in dementia care. The nurses' role is integral to implementation of treatment strategies to dementia patients and efforts to improve care in patients with dementia using a nonpharmacological approach are necessary. Therefore, guidelines outlining nonpharmacologic dementia care management will enable nurses to provide a wider spectrum of care to dementia patients. The purpose of this project was to make recommendations for the development and implementation of interdisciplinary practice guidelines to standardize care in the organizational setting. An integrative literature review was conducted using the Fineout-Overholt, Melnyk, Stillwell, and Williamson's analytical approach to reviewing evidence using 7 levels for evaluating the hierarchy of evidence. Inclusion criteria were limited to studies from January 2010 to October 2017 in English with full text. A total of 16 studies were reviewed and categorized according to 1 of the 7 hierarchical levels. Findings were summarized at each appropriate level and included systematic review or meta-analysis, randomized controlled trials, controlled trial without randomization, case-control or cohort studies, qualitative or descriptive studies and expert opinion or consensus. Non-pharmacological approaches including music therapy, cognitive-behavioral therapy, distraction, horticultural therapy, ear acupressure, and cognitive stimulation were all shown to be effective in dementia care. Social change based on this project targets improving nurses' knowledge of nonpharmacological interventions in dementia care.

Nonpharmacological Behavioral Interventions for Patients with Dementia: A Systematic
Literature Review

by

Michelle M. Spears

MSN, Widener University 2009

BSN, Eastern University, 2005

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2018

Dedication

I dedicate this project to my father who suffered from dementia. Your love, kindness, and devotion to our family will never be forgotten, but will resonate in our hearts forever.

In Memory of

Odell Jenkins Sr. 1948-2016

You will always be in my heart.

Acknowledgments

I would first like to give all honor and praises to my Lord, my Saviour, my God who is the author and finisher of my life. Jeremiah 29:11 states that you had plans for me even before I was born.

I want to thank Dr. Robert McWhirt for being my committee chair and always keeping me focused while being available to listen. I would also like to thank Dr. Janine Everett and Dr. Patricia Schweickert for being my committee members. I am forever thankful for all the time and support that you have each provided throughout this DNP journey.

To my beloved husband, Eric, you have always been my number one supporter and there are no words that can express my love for you. You have been my rock since I started my nursing journey over some 16 years ago and I could never have made it this far without your continued love and support. This doctoral degree is dedicated to you, Vance, Jayda, Eric and Mason; I will love you all until I take my last breath and beyond.

To my sister Dr. Jonanna Rochelle Bryant, you have been my inspiration from day one of this journey and I appreciate and love you so very much. You have mentored me and pushed me to limits that I never thought I would go. I will forever thank God for assigning you to my life.

Lastly, to my best friends/sisters, you each hold a special place in my heart and I thank you all for believing in me when I didn't believe in myself. I love you all to life, my forever friends and family Aisha, Wadeedah, Khalilah, Angella, Kelli and Sandy.

Table of Contents

Section 1: Nature of the Project	1
Introduction.....	1
Problem Statement	4
Purpose.....	5
Nature of Doctoral Project	6
Significance.....	7
Summary	7
Section 2: Background and Context	9
Introduction.....	9
Concepts, Models, and Theories	9
Relevance to Nursing Practice	11
Local Background and Context	11
Role of the DNP Student.....	12
Summary	13
Section 3: Collection and Analysis of Evidence.....	14
Introduction.....	14
Practice-Focused Question.....	14
Sources of Evidence.....	15
Published Outcomes and Research	22
Inclusion Criteria	23
Exclusion Criteria	23

Analysis and Synthesis	23
Summary	24
Section 4: Findings and Recommendations	25
Introduction.....	25
Summary of Evidence.....	26
Level I Studies	27
Level II Studies	27
Level III Studies.....	28
Level IV Studies	29
Level V Studies.....	30
Level VI Studies	31
Level VII Studies	32
Findings and Implications.....	34
Recommendations.....	35
Strengths and Limitations of the Project.....	36
Summary	36
Section 5: Dissemination Plan	38
Dissemination Plan	38
Analysis of Self.....	39
Summary	39
References.....	41

Section 1: Nature of the Project

Introduction

Dementia is a disorder of progressive decline in one or more domains of cognitive function due to damage or disease in the brain (Alves et al. 2013; Chapman, Williams, Strine, Adna, & Moore, 2006; Sadowsky & Galvin, 2012). Dementia is caused by physical changes in the brain and due to its slow progression is often difficult to evaluate and diagnose the disease at an early phase. According to the National Institute on Aging (NIA, 2007), one in seven Americans over the age of 71 have some form of dementia. The increasing number of older adults affected by dementia places a huge challenge to treatment for providers and those caring for these patients. Chandler and Bruneau (2014) posited that the incidence of dementia in the United States will double by 2030; therefore, better understanding of this disease and its impact is critical.

Dementia is characterized by generalized and progressive deterioration of cognitive capabilities that affects daily activity (Turro-Garriga et al. 2015). Cognitive impairment is when an individual has difficulty with memory, concentration, learning new tasks, and decision making, which impacts everyday life (Alzheimer's Association, 2017). Mild cognitive impairment is characterized by impairment not severe enough to interfere with activities of daily life, but severe impairment leads to losing the ability to carry out simple everyday tasks (Alzheimer's Association, 2017). Symptoms that define dementia include a significant impairment with at least two core mental functions including memory, communication and language, short attention span, ability to make sound reasoning and judgment, and visual perceptions (Alzheimer's Association, 2017).

Understanding the characteristics of dementia provides the ability to determine the best treatment options available.

The cost of treating this disorder is also high. In 2013, the estimated cost for care of persons with dementia was estimated to be \$109 billion for care purchased and between \$159 billion to \$215 billion when informal care is included (Hurd, Martorell, Delavande, Mullen, & Langa, 2013). Further, Hurd et al. (2013) posited that the main component of dementia costs is institutional and home-base care rather than medical costs and the cost of that care will reach as much as \$511 billion in 2040. As a result, management of cost related to dementia is an important factor when providing treatment and care.

Traditionally, the treatment of dementia is addressed using a pharmacological approach. Pharmacological interventions include the use of antipsychotics, which are prescribed to treat the behavioral symptoms associated with dementia despite their modest efficacy and potential for serious side effects (Pratt, Roughead, Salter, & Ryan, 2010). Approximately 304,983 nursing home residents had a minimum of one claim with Medicare for the use of some type of antipsychotic drug (Levinson, 2011). Margallo-Lana et al. (2001) posited that more than 40% of people with dementia in care facilities are taking some type of antipsychotic drug to address their diagnosis of dementia.

Despite the usage of antipsychotic drugs, there is substantial safety factors associated with their use (Schneeweiss, Setoguchi, Brookhart, Dormuth, & Wang, 2007). Antipsychotic medications are associated with increased mortality risk in older adults with dementia (Schneeweiss et al. 2007). Moreover, Steinberg and Lyketsos (2012)

concluded that taking antipsychotic drugs increase the risk for heart related events and infections among dementia patients. Antipsychotic drug use is linked to an increased risk for fractures and falls in older adults with dementia (Steinberg & Lyketsos, 2012). Safety risks can be minimized through careful selection of appropriate treatment and knowledge of alternatives to antipsychotic drug use in this population.

One plausible solution to this cause for concern is the use of nonpharmacological interventions as a first-line approach to treatment among individuals with dementia (Douglas, James, & Ballard, 2004). Nonpharmacological interventions include behavioral therapy, reality orientation, validation therapy, cognitive therapy, aromatherapy, and other multisensory therapies (Douglas et al. 2004). Complementary therapies support and promote the treatment of dementia without cure (Douglas et al. 2004). The American Cancer Society (ACS, 2017) defined these complementary and alternative medicines (CAM) as supportive methods for evidence-based treatment. Effective CAM use for individuals with dementia includes music therapy, art therapy, pet therapy, physical exercise, aromatherapy, and meaningful activities (American Cancer Society, 2017). Nonpharmacological interventions such as those listed above have yielded positive results in research studies targeting symptoms of dementia (Douglas et al. 2004).

Nonpharmacological interventions for management of dementia are important and have been proven effective in these patients (Rayner, O'Brien, & Schoenbachler, 2006). Identification of behavioral symptoms is needed to effectively develop appropriate behavioral interventions (Rayner et al. 2006). Spira and Edelstein (2007), Reese, Theil and Cocker (2016) and Steinberg and Lyketsos (2012) address interventions that target

behaviors such as wandering, disruptive vocalization, physical aggression, and other agitated behaviors associated with dementia.

Nurses' knowledge and attitudes are two barriers to using nonpharmacological behavior techniques (Buhr & White, 2006). Buhr and White (2006) concluded that treatment of dementia should begin with nonpharmacological approach. The authors cited five goals related to care of these patients including a feeling of safety, comfort, experiencing a sense of control, experiencing minimal stress, positive stimulation, and experiencing pleasure (Buhr & White, 2006). Similarly, Palm, Kohler, Bartholomeyczik, and Holle (2014) found that the use of questionnaires to assess nurses' knowledge is an effective method to further understand their perspective. Thus, the purpose of this DNP capstone project was to conduct a systematic review focusing on nonpharmacological care and make recommendations for the development and implementation of interdisciplinary practice guidelines to standardize care in the organization.

Problem Statement

The largest use of antipsychotic medications is in the treatment of neuropsychiatric symptoms of dementia (Steinberg & Lyketsos, 2012). These symptoms include delusions, depression, and agitation affecting 97% of individuals with dementia (Steinberg & Lyketsos, 2012). The use of psychotropic medications in older adults with dementia increases the risk of mortality. Nowrangi, Lyketsos, and Rosenberg (2015) recommended avoiding antipsychotic medications to treat neuropsychiatric symptoms. Selection of appropriate treatment for patients with dementia requires education and close monitoring to minimize safety risks (Steinberg & Lyketsos, 2012).

Nonpharmacological interventions should be a first line best practice (Douglas et al. 2004). Cognitive disorders have been the focus of interest in research for patients with dementia (Douglas et al. 2004). The lack of use of nonpharmacological interventions poses significant risks in dementia treatment. Ensuring that nurses provide care based on evidence-based principles and best practice guidelines is essential.

There is also a critical need for nurses to recognize treatment with nonpharmacological interventions in dementia care. The nurses' role is integral to treatment strategies in providing care to dementia patients. Efforts to improve care in patients with dementia using nonpharmacological approaches are necessary. Synthesizing of literature on the use of nonpharmacological care in dementia will provide nurses the opportunity to develop, refine, and improve how they implement treatment and provide care for these patients.

Purpose

The purpose of this DNP project was to conduct an integrative review of literature to identify effectiveness of nonpharmacological interventions in the care of individuals with dementia. Too often pharmacological interventions are used as a first line treatment for behavioral difficulty in dementia rather than as a considered second line treatment when other nonpharmacological approach is not effective. This DNP project will assess the gap in literature related to nonpharmacological interventions independent of pharmacological approaches in dementia care. Use of this information will assist in making recommendations for the development and implementation of interdisciplinary practice guidelines for nurses to standardize care in the organizational setting. This

information will also allow for a holistic approach to nursing care. Delivery of care for dementia patients require the holistic care model that supports nursing practice and addresses all aspects of patient health including physical, social, emotional and mental aspects (Crisp, Douglass, & Rebeiro, 2013).

Nature of Doctoral Project

In this DNP project, an integrative review of literature was conducted. Systematic and rigorous analysis of current literature regarding interventions for dementia will be discussed. The use of pharmacological interventions in relationship with nonpharmacological interventions was analyzed. Armstrong, Hall, Doyle, and Waters (2011) described systematic reviews as a method that assesses quality and synthesizes findings qualitatively or quantitatively. Systematic reviews summarize large amounts of information, identifying gaps in knowledge, and are useful in identifying interventions that guide nursing practice (Gopalakrishnan & Ganeshkumar, 2013).

The framework for this project will follow the Fineout-Overholt evidence-based practice approach to conducting a critical appraisal of literature. Fineout-Overholt et al. (2010) suggested that there are seven levels of evidence in categorizing articles. These are (a) systematic review or meta-analysis, (b) randomized controlled trial, (c) controlled trial without randomization, (d) case-control or cohort study, (e) systematic review of qualitative or descriptive study, and (f) expert opinion or consensus (Fineout-Overholt et al. 2010).

The American Association of College of Nursing (2006) stated that “improvements in practice are neither sustainable nor measurable without corresponding

changes in organizational arrangements, organizational and professional culture, and the financial structures to support practice” (p. 10). Integration of knowledge and experience include collaborating with other advance practice nurses and clinical experts in identified areas of practice including education, review of literature, and best practices in addition to implementation of programs to improve outcomes. The DNP role emphasizes the importance of assuring quality care as well as patient safety (AACN, 2006).

Significance

Caring for patients with dementia can have a significant impact on nurses and patients. Behavioral disturbances can range from a wide variety of symptoms including combativeness, agitation, verbal aggression, irritability, and restlessness. Treatment of behavioral symptoms in dementia is especially challenging and can cause significant distress for patients (Steinberg & Lyketsos, 2012). The ability to identify appropriate treatment for patients with dementia requires knowledge of those providing care.

Identifying best evidence clinical practice in the treatment of dementia is important in caring for these patients. A synthesis of literature will guide practice in the treatment of individuals with dementia and provide recommendations for development of interdisciplinary practice guidelines to standardize care in the organization. Therefore, nurses who provide care to patients with dementia will have the ability to understand the importance of preventing gaps in treatment.

Summary

An integrative review of literature was done to identify effectiveness of nonpharmacological interventions in the care of individuals with dementia. Research

supports the literature addressing nonpharmacological approach for improvement of patient outcomes. A systematic review of literature will assist in providing recommendations for practice, policy, and additional research. Section 2, will examine the background and context of the practice problem.

Section 2: Background and Context

Introduction

The use of antipsychotic drugs in treatment of dementia poses great safety risks. The greatest risks include mortality among individuals taking antipsychotic drugs (Steinberg & Lyketsos, 2012). The risk of death posed by antipsychotic drug use raises great concerns for clinicians in management of dementia (Schneeweiss et al. 2007). Alternatives to antipsychotic drug use in dementia patients should be considered in the reduction of safety risks (Douglas et al. 2004).

This DNP project will conduct an integrative review of literature to identify the effectiveness of nonpharmacological interventions in the care of individuals with dementia. This section reviewed concepts, models, and theories and how I use them to determine relevance to nursing practice, a framework using Fineout-Overholt et al.'s evidence-based practice approach to dementia care. Section 2 also reviewed nursing knowledge of nonpharmacological interventions and my role with the DNP project regarding dementia care.

Concepts, Models, and Theories

According to Melynk and Fineout-Overholt (2014) a theoretical or conceptual framework is an analytical tool with several variations and contexts that attempt to explain, and or predict a phenomenon. Using a theory or framework helps provide a foundation for designing and planning strategies for intervention and selecting tools that are not random (Sales, Smith, Curran, & Kochevar, 2006). Theoretical or conceptual framework provides different perspectives on how to translate research into practice.

Understanding the importance of the theoretical or conceptual framework helps provide nurses or clinicians with clear guidelines that help strengthen decisions to implement change in the clinical setting.

The framework to best address the clinical issue identified in this paper and analyze the hierarchy of evidence is described by Fineout-Overholt et al. Fineout-Overholt et al.'s (2010) defined framework for the evaluating the hierarchy of evidence is as follows:

- Level I: Evidence found through a systematic review or meta-analysis of all relevant randomized controlled trials
- Level II: Evidence found through subjects that are randomized to a treatment group or a control group
- Level III: Evidence found through subjects that are not randomly assigned to a treatment group or control group
- Level IV: Evidence found through a case control study or cohort study
- Level V: Evidence found through qualitative or descriptive studies which answer a clinical question
- Level VI: Evidence found through qualitative studies or descriptive studies
- Level VII: Evidence found through the opinions of expert committees

For this project, a systematic review will be conducted by following all the steps outlined in Section 3.

Relevance to Nursing Practice

Managing behaviors in patients with dementia is a priority for nurses and creates struggle to deliver excellent care, facilitate patient recovery, and prevent complications, such as infection, malnutrition, and functional decline. Nurses are tasked with respecting the patient's personal space by prompting him or her to complete daily task independently using simple one-step instructions, such as during bathing, feeding, or repositioning (Sadowsky & Galvin, 2012). During more complicated procedures, such as wound management or tube care, the nurse is challenged with finding strategies to encourage the patient to participate in care versus physical aggression or other agitated behaviors.

Optimal management of behaviors associated with dementia requires a multidimensional approach to treatment (Sadowsky & Galvin, 2012). It is important for nurses to understand that behavioral disturbances are common in patients with dementia and should be anticipated. The role of the nurse is important, and the effectiveness of care needs to be demonstrated (Sadowsky & Galvin, 2012). Understanding dementia care management can help nurses attain a better understanding of the needs of these patients and allow nurses to perform at higher standards of care (Chodosh et al. 2012).

Local Background and Context

Dementia is known as one of the major causes of disability and dependency among older adults (Sadowsky & Galvin, 2012). There is a significant need to increase and expand research regarding this disease. Guidelines for the management and/or

treatment of dementia, including pharmacological and nonpharmacological interventions, are essential (Sadowsky & Galvin, 2012).

The healthcare costs associated with care of dementia are greater than any other disease (NIA, 2015). According to the NIA (2015), total spending on treatment was more than \$250 million dollars. Cost effectiveness in the treatment and management of dementia is crucial (Wimo & Norlund, 2007). Treatment approaches should aim at disease-modifying effects versus symptomatic treatments (Wimo & Norlund, 2007).

The American Psychiatric Association (APA) has developed new guidelines in the use of antipsychotic medications in treatment of dementia. Recommendations for assessing psychological and behavioral symptoms include developing a comprehensive treatment plan, performing risk/benefit analyses prior to prescribing, and using antipsychotic medications as second line of defense. Federal requirements in dementia care and the use of antipsychotic medications require that nonpharmacological interventions are attempted in long term care settings. Federal and state guidelines require dose reduction attempts to prevent unnecessary use of antipsychotics. The risk for increased mortality in the older adult population is of great concern.

Role of the DNP Student

My motivation for to this DNP project was very personal. My father was diagnosed with dementia in 2015, which caused a significant decline in his ability to care for himself. During his illness, the doctors attempted treatment with the use of antipsychotic drugs. Each time I would administer the prescribed medications, his agitation became worst. My father was combative, exhibiting the characteristics of

patients with dementia. As my father's caregiver and a witness to how the drugs increased the incidence of his behaviors, I began using nonpharmacological interventions. My father enjoyed music and television, which calmed him during those agitated periods. I was extremely frustrated with his doctors and felt that drugs were not the solution for my father. My interest in this project is to determine what evidence is currently available to nurses and make recommendations for the development and implementation of interdisciplinary practice guidelines to standardize care in the organization.

Summary

The use of pharmacological treatment in dementia is not always effective in treating behavioral symptoms associated with dementia. Drugs prescribed to patients experiencing agitation and other behaviors associated with dementia may cause serious side effects. Nonpharmacological treatments are safer and more cost effective. Synthesis of literature regarding nonpharmacological treatment interventions will help provide insight on gaps in clinical practice. Section 3, will focus on collecting and analyzing evidence on the effectiveness of nonpharmacological interventions for patients with dementia.

Section 3: Collection and Analysis of Evidence

Introduction

The purpose of this project is to conduct a systematic review focusing on nonpharmacological care of patients with dementia and make recommendations for the development and implementation of interdisciplinary practice guidelines to standardize care in the organization. Caring for patients with dementia requires knowledge of nursing staff in the use of evidence-based approaches including behavioral management techniques (Spector, Orrell, & Goyder, 2013). The nurses who lead and manage the care of dementia patients face barriers to providing care which demand physical and emotional support (Holman, 2014). Careful use of effective nonpharmacological interventions will positively impact the care nurses deliver. Section 3 will review practice-focused problem inquiry, project approach, method used, and a rationale for articles of exclusions.

Practice-Focused Question

The local problem is knowledge deficit of experienced nurses caring for dementia patients in the long-term care setting. Pharmacological interventions in patients with dementia are widely used despite the increased risk of adverse effects. The use of pharmacological intervention increases the risk of stroke and even leads to death (Crugel, Paton, Singh, Jeboda, & Treloar, 2012). Crugel et al. (2012) suggests that use of pharmacological interventions is associated with increased cognitive decline, falls, fractures, and development of deep vein thrombosis in dementia patients. Alternatives to pharmacological use should be considered. Improving overall care and well-being of

dementia patients includes use of nonpharmacological approach which would assist in ensuring dementia patients receive appropriate and effective care (Douglas et al. 2004). Evidence-based quality improvement and healthcare transformation are priorities in redesigning care that is effective, safe, and efficient (Stevens, 2013).

The question I used to guide this systematic review of literature is: How effective are nonpharmacological interventions in the treatment of dementia? This question provides motivation for pursuing this literature review which may be used to develop organizational guidelines in the long-term care setting. Identifying effectiveness of nonpharmacological interventions in dementia care will assist in improving dementia care.

Sources of Evidence

The purpose of this DNP capstone project is to analyze and synthesize the current best practice evidence in the treatment of dementia. The sources of evidence for this project will include several different databases including CINAHL, MEDLINE, MEDLINE with full text, Academic Search Complete, Psych Articles, PubMed, ERIC, SocIndex with full text, ProQuest, and Psych Info. The sources used in this systematic review will include peer-reviewed and published evidence-based research on nonpharmacological interventions in treatment of dementia.

To ensure methodological consistency, Fineout-Overholt's Critical Appraisal of Evidence checklist will be used. The content covered in the checklist includes type of evidence, levels of evidence, and the description of evidence (Fineout-Overholt et al.

2010). Collection and analysis of this evidence will address the effectiveness of nonpharmacological interventions. An integrative review synthesizes both qualitative and quantitative research and will provide a well-rounded synthesis of knowledge about the topic being discussed.

Nonpharmacological treatment for dementia includes sensory interventions and good quality activities such as music therapy (Livingston et al. 2014). These interventions decrease agitation in dementia patients. Other interventions included support groups, cognitive training, and enhancement programs along with exercise programs (Burgener, Buettner, Beattie, & Rose, 2009). Gaining a clearer depiction of nurses' knowledge regarding use of nonpharmacological interventions would help nurses in providing evidence-based care for dementia patients. Section 3 will contain the results of the literature review regarding use of nonpharmacological intervention in treatment of dementia patients.

Ongoing education about dementia is critical, along with knowledge of required strategies to care effectively for these patients. Digby, Lee, and Williams (2016) identified two major factors including lack of organizational resources and stigmatization of dementia in providing care to patients with challenging behaviors: Targeted education about dementia related behaviors which would increase understanding allowing nurses to deal with these challenging behaviors and decrease stigmatization.

Isaksson, Graneheim, Astrom, and Karlsson (2011) conducted interviews with caregivers of patients with physically violent behaviors related to dementia. The study concluded that physically violent behavior is often experienced among persons with

dementia and caregivers manage these behaviors with nonpharmacological intervention. Nonpharmacological interventions included diverting interest and attention to enjoyable activities and providing a quiet place for meditation. This study identifies further need to understand effectiveness of nonpharmacological interventions.

Staff education and training is important in dementia care (Jenkins, Smythe, & Galant-Miecznikowska, 2014). Staff training on dementia care requires knowledge of behavioral orientation including cognitive approach to patient needs, effective communication, person-centered approach focusing on individual needs, and emotion-orientation to meet the needs of dementia patients. Spector, Orrell and Goyder (2013) argued that staff knowledge or attitudes towards dementia care affect outcomes of those with dementia such as the use of medication and/or restraints. Staff training should be ongoing, providing necessary support in implementation of new knowledge in dementia care (Spector, Orrell, & Goyder, 2013).

Beer et al. (2009) interviewed care providers in a residential facility with focus on their perceived current knowledge of dementia and education needs and preferences. Staff expressed that education related to dementia and dementia care should provide clear guidelines and expectations (Beer et al. 2009). The person-centered approach which focuses on individual needs of patients was an area of importance in their perception of providing good care (Beer et al. 2009). This study revealed a gap in caregiver knowledge and the need to better understand how to provide quality care for dementia patients.

Jones, Moyle, and Stockwell-Smith (2013) conducted a study to ascertain caregiver knowledge of dementia exploring their perceptions of the importance and

adequacy of dementia education. A survey entitled Staff Knowledge of Dementia Test was used. Interviews on perception of dementia education were conducted to include thirty-three questions regarding dementia in three areas of knowledge (a) pathology of dementia (b) signs and symptoms and (c) treatment of dementia. Participants in the study acknowledged the need for further education about dementia care, particularly in area of behavior management (Jones et al. 2013).

Annear et al. (2017) examined nurses' knowledge in dementia care across a spectrum of health professionals with the goal of obtaining targeted educational interventions that improve dementia care and support. The Dementia Knowledge Assessment Scale was used for this study. The Dementia Knowledge Assessment Scale is valid and reliable in measuring dementia knowledge of the nursing staff. The tool included four domains of knowledge characteristics including (a) Causes and Characteristics (b) Communication and Behavior (c) Care Considerations, and (d) Risks and Health Promotion. The study revealed differences in perception of these four domains of knowledge in dementia care (Annear et al. 2017).

Adler, Lawrence, Ounpraseuth, and Asghar-Ali (2015) identified educational and training needs related to dementia care and treatment for caregivers of dementia patients in an outpatient setting. The study included 252 staff members. The members consisted of social workers, psychologists, dieticians, and nurses. Each member was provided a survey that contained several categories to assess knowledge in dementia care. The categories included epidemiology, diagnosis, signs and symptoms, differentiating, nonpharmacological interventions, nutrition, pathophysiology, and pharmacological care

in dementia. Results revealed increased caregiver knowledge in dementia care related to signs and symptoms, diagnosis, epidemiology, and nonpharmacological interventions with staff being least knowledgeable about nonpharmacological interventions (Adler et al. 2015).

The literature suggests lack of support is available when caring for dementia patients. Digby, Lee, and Williams (2016) revealed that nurses often struggle to provide basic care for patients with dementia. The goal of the study was to identify how care for this population is perceived and to identify how caregivers provide this care. The study suggests that nurses lack education in area of dementia care and the need for education on dementia care; practical support; strong clinical leadership and role modeling. Improving clinical practice in dementia care requires increased nursing knowledge and understanding of the complex needs of these patients (Digby, Lee, & Williams, 2016).

Dementia patients require frequent hospitalizations which causes increased distress and disorientation in this population. A study conducted by Timmons, et al. (2016) assessed the quality of dementia care in the acute care setting. This study included thirty-five acute care hospitals examining care from admission until discharge. Assessment of these dementia patients included mobility, continence, pressure ulcer risk, pain, cognition and delirium. Results yielded information that only two out of the thirty-five hospitals provided and training related to dementia and dementia awareness training for staff. Dementia care assessment and care concluded to be less than the highest standard or quality increasing risk of adverse patient outcomes (Timmons, et al. 2016).

Staff training and support is critical in overall improvement of quality of care for this population (Timmons, et al. 2016).

Pathak & Montgomery (2015) examined general practitioner knowledge, practice and barriers related to management of dementia. The study was done utilizing questionnaires in with identified topics that included knowledge, practice and barriers in dementia care. The results related to diagnosis and management was poor in area of diagnosis, knowledge of dementia care and aging, decline and awareness of overall disease process. There were one-hundred and seventy-eight participants in this study. The study identified areas for improvement including educational support programs for staff.

Figueiredo, Barbosa, Cruz, Marques & Sousa (2013) aimed to assess a psychoeducation program for staff caring for dementia patients. The program focused on increasing knowledge regarding dementia care. Nonpharmacological approach to dementia were discussed including motor stimulation and multisensory stimulation. These approaches were implemented primarily by staff providing care for these patients. The study suggested a multicomponent approach to dementia care. Staff knowledge and education was a major component in the promotion of patient's well- being.

Kolanowski, Fick, Frazer & Penrod (2010) examined staff perception of barriers to the implementation of nonpharmacological interventions for behavioral and psychological symptoms of dementia. The study included thirty-five staff members (registered nurses, licensed practical nurses, nurse aides, respiratory therapists, activity personnel and medical directors) from six nursing centers in Pennsylvania and North Carolina. Findings of this study suggested that successful use of nonpharmacological

interventions require the appropriate staff and the need for proper education and training of those caring for dementia patients. The findings also support the need for further education about this disease (Kolanowski, Fick, Frazer, & Penrod, 2010).

Mansfield-Cohen, Jensen, Resnick & Norris (2017) examined current guidelines recommending nonpharmacological interventions in dementia care. This study compared attitudes of physicians, psychologists and nurse practitioners in the use of nonpharmacological interventions. A web-based questionnaire was utilized capturing the level of agreement concerning treatment of behavioral symptoms utilizing nonpharmacological interventions. Eighty-nine nurse practitioners responded favorably toward the use of nonpharmacological interventions in management of dementia. Knowledge level of nonpharmacological interventions differed among providers. All respondents to this study were knowledgeable of these interventions with psychologists scoring higher than nurse practitioners and physicians scoring lower. Findings again suggest the need for more comprehensive training of professionals in area of dementia care (Mansfield-Cohen, Jensen, Resnick, & Norris, 2017).

Those caring for patients with dementia must have knowledge of dementia to engage in clear decision making and appropriate care (Robinson, et al. 2014). A study was done by Robinson, et al. (2014) to ascertain staff knowledge of dementia care. The study included one hundred and seventy-four nurses. The Dementia Knowledge Assessment Tool was utilized to measure dementia knowledge of staff. The study revealed gaps in dementia-related knowledge specifically among formal caregivers.

Findings suggested the need to address critical knowledge deficit among those caring for patients with dementia.

A large percentage of studies focus on either current knowledge of dementia, non-pharmacological treatment or educational needs of staff focusing on dementia care. There are numerous barriers identified to providing care for patients who suffer from dementia (Gallagher-Thompson, et al. 2012). The literature revealed a few to include education of healthcare provider; low health literacy and poor language proficiency; culturally based beliefs about dementia; lack of knowledge about dementia among caregivers; and lack of support seeking behaviors (Gallagher-Thompson, et al. 2012). The literature supports the hypothesis that nonpharmacological interventions are effective in management of dementia. Knowledge of dementia care increases the ability to manage these patients. Education and training on the importance of providing nonpharmacological interventions whenever possible is also important (Lipscomb, 2013).

Dementia care and treatment of behavioral disturbances such as aggressiveness, agitation, delusions and apathy is a common concern in dementia care (Kratz, 2017). These behaviors present a major challenge for nurses who care for these patients. Knowledge of effective nonpharmacological interventions is essential in providing optimal care. Psychoeducation and training is needed so that caregivers/nurses approach these patients in the proper manner and manage care appropriately (Kratz, 2017).

Published Outcomes and Research

The literature search was limited to January 2010 through January 2018, written in English language, full text articles and excluded references to antipsychotic medication

use in dementia patients and children under the age of 18. Search terms were *dementia + care, dementia + care + nonpharmacological, dementia + care + nursing*. The sources utilized will include peer-reviewed and published evidence-based research. Thirty-seven out of 53 articles found were excluded based on exclusion criteria. There were 16 articles analyzed.

Inclusion Criteria

Articles and studies were included if they were (a) on the topic of dementia care (b) are relevant to nursing knowledge of dementia care (c) are written in English (d) are peer reviewed, (e) are relevant to nonpharmacological treatment of dementia and (f) are published between the years 2010-2017.

Exclusion Criteria

Articles were excluded from the review if they (a) include non-nursing content (b) were not peer-reviewed (c) included pharmacological treatment in dementia care and (d) studies with no specific non-pharmacological interventions or outcomes. Articles were initially reviewed and selected based on inclusion categories or excluded depending on selection criteria previously stated.

Analysis and Synthesis

Evaluation was done on materials using the Fineout-Overholt et al. (2010) critical appraisal of evidence checklist, which determine that there are seven levels for evaluating the hierarchy of evidence for articles:

- Level 1 evidence was: a systematic review or a meta-analysis review.
- Level 2 evidence was randomized controlled trial.

- Level 3 evidence was controlled trial without randomization.
- Level 4 evidence was case-control or cohort study.
- Level 5 evidence was systematic review of qualitative or descriptive studies.
- Level 6 evidence was qualitative or descriptive study
- Level 7 evidence was expert opinion or consensus

Each article was weighed against each of the above levels and categorized accordingly. The findings will be summarized within each level. Recommendations for nursing practice, policy and further research.

Summary

In summary, the articles selected for this systematic review will focus on effectiveness of current nonpharmacological treatment in dementia care. The hypothesis that use of nonpharmacological interventions for dementia is effective in treatment will be discussed. The articles selected for this systemic review of literature will provide comprehensive collection for analysis of dementia care including effectiveness of nonpharmacological interventions. Articles will be separated into inclusion and exclusion categories and evaluated using Fineout-Overholt approach. In Section 4, we will discuss the findings, implications, recommendations, strengths, and limitations of this systematic review.

Section 4: Findings and Recommendations

Introduction

Antipsychotic medications are often used as a treatment approach for dementia. These medications entail many dangers, particularly in older adults in the long-term care setting. Age-related physiological changes that occur in the body may result in altered therapeutic effects. Common side effects include sedation, confusion, falls with injury, and cardiac and extrapyramidal symptoms (Azermai et al., 2013). Nonpharmacological approach to treatment and care should be considered to improve patient outcomes.

The purpose of this DNP project is to synthesize the current literature to identify effectiveness of nonpharmacological interventions in the care of individuals with dementia. An integrative literature review was conducted to identify evidence regarding the effectiveness of nonpharmacological approach to dementia care. Fineout-Overholt et al.'s hierarchy of evidence was used to analyze the selected articles. Figure 1 demonstrates the levels of evidence and type of databases where the evidence was found per the level of hierarchy. The top of the pyramid level indicates the highest level of evidence. As one moves downward in the pyramid, the level of evidence increases but the quality decreases.

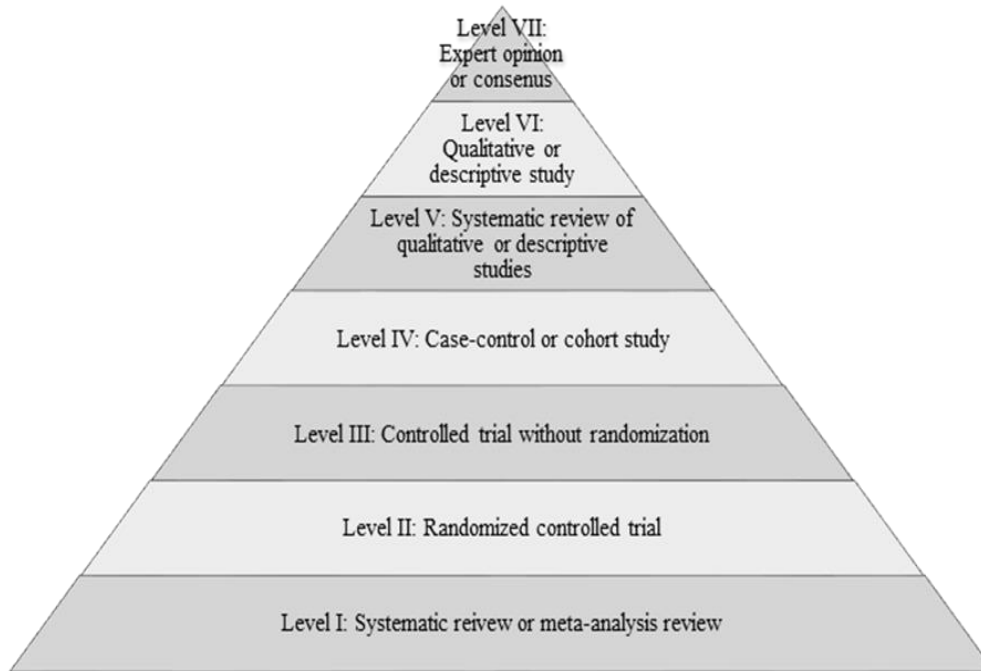


Figure 1. Hierarchy of evidence evaluation system.

Summary of Evidence

There were a total of 16 articles analyzed for this project. The remaining articles were excluded from the systematic review for the following reasons: a) Lack of relevance to non-pharmacological approach, (b) they included non-nursing content, (c) they were not peer-reviewed, and (d) they were not specific to nonpharmacological interventions or outcomes. There was one Level I, one Level II, three Level III, one Level IV, two Level V, one Level VI, and seven Level VII articles within the 16 remaining for review. The articles were obtained from the literature found in the Walden University Library. The inclusion criteria developed for this doctoral project which consisted of studies published on nonpharmacological approach from 2010 through 2017 with full-text in English.

Level I Studies

While agitation is a common behavior experienced by those diagnosed with dementia, care should focus on effective treatment approach. Behaviors, according to Pedersen, Andersen, Andreassen, and Sutterlin (2017) include repetitive acts, restlessness, wandering, and aggression. The authors completed a meta-analysis on the effects of music intervention on agitation in demented elderly individuals with a formal diagnosis of dementia. The authors discussed the effectiveness of music therapy in the treatment of dementia patients with agitated behaviors. Music intervention significantly reduces agitated behaviors in patients with dementia (Pedersen et al. 2017).

Level I summary. Pederson et al. (2017) concluded that music therapy is effective in reducing agitation associated with dementia; therefore, non-pharmacological approach in dementia care should be considered. The study also recommended future research regarding nonpharmacological approach to dementia care and treatment. Limitations to the study were that the authors did not include differentiation between the various types of dementia or degree of severity.

Level II Studies

The effects of dementia lead to cognitive deficits that affect brain function, which causes symptoms such as depression. Complimentary therapies such as acupuncture have been shown to be effective in nonpharmacological treatment of depression in dementia care (Rodriguez-Mansilla et al. 2015). Rodriguez-Mansilla et al. (2015) completed a randomized control trial that demonstrated the effectiveness of nonpharmacological treatment with ear acupuncture and how it improves depression in demented elderly

patients. A total of 111 participants completed this study. Ear acupuncture was shown to improve mood changes associated with depression in dementia patients.

Level II summary. Rodriguez-Mansilla et al. (2015) concluded that ear acupuncture led to improvements in symptoms of depression for dementia patients including changes in mood and behavior. In this study, ear acupuncture was shown to achieve better results than massage therapy in which there was little or no improvement of depressive symptoms. This study evaluated complementary therapies including ear acupuncture which was shown to improve pain, anxiety and depression in dementia patients.

Level III Studies

Dementia patients are expected to experience neuropsychiatric symptoms during the process of their disease (Lichtwarck et al. 2016). Lichtwarck et al. (2016) found the use of cognitive behavioral therapy intervention is effective in changing patient's thoughts, beliefs and attitudes which reduced patients' agitation and mood symptoms. Hsu, Flowerdew, Parker, Fachner, and Odell-Miller (2015) found music therapy to also be effective in improvement of neuropsychiatric symptoms. These studies together confirm that nonpharmacological approach to dementia patients with neuropsychiatric symptoms provide effective treatment.

Agitated behaviors that dementia patients experience is distressing not only to the patients but the nurses who provide care. Ploeg & O'Connor (2010) conducted a study evaluating one-to-one interaction including persons with moderate to severe dementia living in long-term care facilities. The study examined one-to-one interaction activities

based on principles that behavioral symptoms would be reduced. Antipsychotic medications have been widely utilized in managing behaviors in dementia but have limited efficacy in treatment of dementia related behaviors, therefore increasing the need to focus more on nonpharmacological interventions (Ploeg & O'Connor, 2010).

Level III Summary. All three of the articles were randomized controlled trials and peer-reviewed. Lichtwarck, et al. concluded that measurement of implementation effectiveness related to reducing neuropsychiatric symptoms in long-term care is challenging. However, the study discussed the effectiveness of cognitive-behavior therapy in meeting challenging behaviors associated with dementia care. Hsu, Flowerdew, Parker, Fachner & Odell-Miller (2015) provide evidence to support the value of developing music programs that effectively manage neuropsychiatric symptoms for people with dementia. The authors suggest future research endeavors to further validate the clinical use of music therapy in dementia care. Ploeg & O'Connor (2010) concluded the use of one-to-one activities is effective in treating challenging behaviors associated with dementia. Each of the authors conclude that nonpharmacological interventions are proven effective in dementia care.

Level IV Studies

Music therapy interventions are widely utilized in dementia care and have been considered meaningful in the long-term care setting. McDermott, Orrell & Ridder found that the effects of music therapy go beyond the reduction of behavioral and psychological symptom in dementia care. Music therapy was discussed as an emotionally meaningful

experience for dementia patients. This non-pharmacological intervention was also discussed to promote emotional connectedness with others.

Level IV Summary. The only Level IV study included a qualitative study concluded that not only the effectiveness of music therapy in dementia care but the important role in maintaining the person's quality of life.

Level V Studies

Blake and Mitchell (2016) completed a systematic literature review of 15 articles that reflected use of horticultural therapy and improved care in persons with dementia. Horticultural therapy was found to reduce anxiety, agitation and depressive symptoms in dementia patients. The review concluded with three main themes categorized as (a) emotional health (b) self-identity and (c) engagement.

Vernooij-Dassen, Vasse, Zuidema, Cohen-Mansfield & Moyle (2010) completed a systematic review of 28 articles which discussed behavior management techniques (such as behavior therapy), cognitive stimulation, and physical activities (such as walking) and the effect on behavior of dementia patients. The purpose of the review was to explore the evidence on psychosocial interventions for persons with dementia in the long-term care setting.

Evidence showed that psychosocial interventions including behavior management techniques decreased behavioral symptoms in dementia patients. The use of non-pharmacological approach in dementia care has the potential to improve overall quality of life (Vernooij-Dassen, Vasse, Zuidema, Cohen-Mansfield, & Moyle, 2010).

Recommendations based on evidence are important in providing excellent care and in meeting the needs of persons with dementia.

Level V Summary. The two-Level V studies included systematic literature reviews. Blake & Mitchell concluded that horticultural therapy is effective in persons living with dementia. Vernooij-Dassen, Vasse, Zuidema, Cohen-Mansfield & Moyle (2010) suggests that long-term care facilities include psychosocial interventions in care and education for staff addressing knowledge, skills and attitude related to dementia care.

Level VI Studies

Isaksson, Graneheim, Astrom, & Karlsson (2011) conducted quality in depth interviews, the Multi-Dimensional Dementia Assessment Scale and the Geriatric Rating Scale including 309 residents with dementia. The mean age was 82 (SD=7.58) years and 90 (29.1%) were male. The average length of stay in these facilities was 1.69 years (SD=2.50) (Isaksson, Graneheim, Astrom, & Karlsson, 2011). The authors found three factors independently associated with physically violent behavior in residents with dementia: male gender, antipsychotic treatment and decline in orientation. Distraction in relationship to medication, isolation and physical restraint was the most effective direct intervention in management of physically violent behavior among these residents.

Level VI Summary. The only Level VI study concluded that there is a need for nonpharmacological interventions that aim to manage care in dementia patients. This study also concluded that caregivers manage behaviors associated with dementia in a symptom oriented manner. Knowledge of nonpharmacological approach to dementia care

is widely recognized as a need to improve care (Isaksson, Graneheim, Astrom, & Karlsson, 2011).

Level VII Studies

Mitchell & Agnelli (2015) identified distress as one of the most common clinical manifestations associated with dementia. Management of distressing behaviors with use of reminiscence therapy, reality orientation, validation therapy, music therapy, horticultural therapy, doll therapy and other nonpharmacological approach is preferred first line treatment (Mitchell & Agnelli, 2015). Mitchell & Agnelli (2015) argue that effective use of nonpharmacological interventions in clinical practice alleviate distress in dementia care. Craig (2014) found music therapy to be successful in reducing agitation in patients with dementia. While Samsun et al. (2015) concluded that nonpharmacological interventions including music therapy improve emotional and behavioral functioning in patients with dementia. These studies together confirmed that use of nonpharmacological interventions improve overall well-being of patients with dementia. Nonpharmacological approach induced positive emotional and behavioral changes in dementia care (Samsom, Clement, Narme, Schiaratura, & Ehrle, 2015).

Dementia is associated with challenging behaviors that impact the quality of life for those who experience distressing behaviors. In a study done by Karlin et al. (2014) there were six behavior types identified including resistance to care, agitation, violence/aggression, vocalization, wandering and other. The study concluded that a structured approach to assessing targeted behaviors with the development of non-pharmacological interventions to be effective. Curyto et al. (2017) found that this

structured approach creates person-centered care to effectively manage challenging behaviors in dementia patients. Each of the studies conclude effectiveness of psychosocial intervention for managing challenging dementia-related behaviors.

Treush, Page, Niemann-Mirmehdi, Gutzmann, Heinz & Rapp (2011), identify apathy or loss of motivation as a significant symptom in dementia patients especially those who reside in long-term care facilities. These authors found social contact and motivation effective in management of behavioral symptoms in dementia. The literature suggests that focusing on motor, cognitive, and emotional aspects of apathy improve non-pharmacological treatment of dementia.

Rylatt (2012) conducted a study to evaluate the use of creative therapy in persons with dementia. Rylatt (2012) found that implementation of creative therapy in dementia care improve self-expression, communication, pleasurable activities and patient engagement. Evidence suggests that recreational activities improve mood and behavior in patients with dementia. Limitations to this study include no use of inclusion or exclusion criteria. Recommendations for future research on the outcomes and benefits of this non-pharmacological approach are needed.

Level VII Summary. These studies were the lowest level of appraisal, authoritative review or opinion. The authors provided their opinions on various non-pharmacological approach to dementia care. The authors argued the benefits of nonpharmacological interventions for dementia patients and their effectiveness.

Findings and Implications

The findings of the systematic literature review demonstrated that the current available evidence is insufficient to determine effectiveness of nonpharmacological interventions based on literature reviewed and further research needs to be conducted. The review of available literature indicated that there is little evidence on use of nonpharmacological approach to dementia care. The literature showed effective outcomes in symptom improvement in behavioral management of these patients. The role of the nurse in dementia care is to deliver quality care to this patient population.

The implications for this DNP project is that the systematic review lacked evidence in relationship of non-pharmacological interventions and dementia care. The literature provided focus on multisensory therapies in dementia care but lacked evidence on behavioral management techniques, reality orientation, validation therapy, cognitive therapy, aromatherapy and other nonpharmacological approach to care. Despite, dementia being a commonly treated diagnosis in the older adult population, it has been shown that there is no published empirical research on behavioral management.

The nurses' ability to manage patients with behaviors associated with dementia is important. Although pharmacological management is commonly utilized in this care despite the increased safety risks nurses most times become distressed by the need to provide appropriate care for these patients. Further research in this area is needed as it impacts dementia patients and the care nurses provide. Nurses are impacted by the recognition of the needs of the individuals with dementia while facing organizational constraints that prevent them from delivering quality care.

Potential implications for positive social change at the individual level may inform nurses of the need to gain knowledge on dementia care and treatment. Developing curriculum on dementia care will provide the opportunity to educate nurses on nonpharmacological behavior management prior to drug administration. At the organizational level, the implications for positive social change for improving practice may focus on antipsychotic drug reduction therefore improving patient care while reducing costs to the organization.

Recommendations

A recommendation to address the limited literature on non-pharmacological treatment approach to behavioral management in dementia is to conduct research studies that address a variety of nonpharmacological treatment modalities and their effectiveness. Developing a comprehensive study instrument that can be disseminated to involve dementia patients, nurses and caregivers could help identify effective management of behaviors in dementia care. A questionnaire can be developed that ask questions to that providing dementia care and evaluate the effectiveness of nonpharmacological approach to treatment. Working together as an interdisciplinary team could assist organizations in making changes to current practice in dementia care. A suggested recommendation based on this project is to conduct a mixed-method review to identify nurses' knowledge of nonpharmacological interventions in dementia care. Per Grove et al. (2103) using a mixed-method study approach can assist the researcher to narrow the gap of understanding the role of the nurse in dementia care and treatment.

Strengths and Limitations of the Project

Strength of this systematic review was being able to obtain and review current evidence from multiple sources that could answer the practice focused question being applied. Utilizing multiple databases and searching the literature on the project topic allowed for identification of knowledge gaps in those providing care for dementia patients. Another, strength of the project was the ability to identify information collected on positive outcomes for dementia patients. The literature evaluated discussed how the psychosocial well-being of patients improved with nonpharmacological interventions.

A limitation of this systematic review was the inability to observe dementia care for patients and the use of nonpharmacological interventions when providing care. Having the opportunity to observe care could have provided more insight on the different nonpharmacological interventions being utilized in the organizational setting and their effectiveness. Another, limitation was the lack of studies found that focused on nonpharmacological approach to dementia care despite the potential harm of antipsychotic drug use in this population.

Summary

The use of nonpharmacological interventions in dementia care should not be overlooked as a first-line treatment to dementia care. Nurses caring for dementia patients need emotional and practical support when providing care. Based on the literature reviewed nonpharmacological interventions have been proven to be effective in the management of dementia. The gap in literature on use of nonpharmacological behavioral interventions in dementia care makes it difficult to identify effectiveness. Therefore, the

inability to identify use of these interventions could negatively affect the care that nurses provide having a negative impact on the care of dementia patients. Further research is needed as this literature review is lacking evidence on the use of nonpharmacological interventions which needs to be explored in efforts to decrease the gap in a holistic approach to dementia care.

Section 5: Dissemination Plan

Dissemination Plan

There is a gap regarding the use of nonpharmacological behavioral interventions in dementia care. This integrative review discovered that nonpharmacological behavior interventions are effective in area of symptom improvement in behavioral management of dementia patients. However, the literature lacked evidence regarding relationships between nonpharmacological interventions and dementia care. Educating nurses and those caring for dementia patients is paramount to providing holistic care and treatment in the organizational setting.

After graduation, I plan to collaborate with area long-term care facilities in to disseminate this project. The rationale for targeting nurses and caregivers in the long-term care setting is because dementia patients are commonly cared for in this organizational setting. Nurses' will encounter difficult to manage patients who live in nursing homes and other long-term care environments daily basis. Nurses need to learn how to incorporate what they learn regarding the use of nonpharmacological behavioral interventions in dementia care. It is also important for nurses to target caregivers of the nursing team. Ongoing education for the entire team of staff caring for dementia patients is important in management of care. The impact of educating nursing staff is also beneficial to the organization as this may decrease costs of pharmacological approach to care. My goal is to design educational training and review key concepts in guideline-based dementia management. Also upon graduation, I will seek authorization to present this DNP project and publish in journals such as *SAGE Journals* and *Journal of Dementia*

Care. Publication in these journals would prompt further research in the areas of dementia care and nonpharmacological treatment.

Analysis of Self

This integrative literature review provided me an opportunity to think about the care currently provided to patients with dementia and the nurse's role in treatment. There are many projects in which I can become involved to help develop behavioral strategies for dementia care. In my current role as a nurse manager of a dementia unit, this project has helped me to identify the further need for education and training for my staff dementia care. In addition, this project has helped to validate my own feelings and experiences regarding caring for my father, who suffered from dementia for many years prior to his death.

Developing this DNP project has helped me to discover the gap in the literature and the further need for research in this area. In addition, I have become more skilled in searching the literature as well as analyzing it in relation to dementia and the care of those suffering from dementia. My ability to search the literature at this level will assist me in my future goals as a manager, professor, and mentor of my staff, colleagues, and upcoming nurses in the profession.

Summary

The use of nonpharmacological approach and treatment in dementia care is important to improve the overall quality of care provided to dementia patients. Along with increasing the use of these interventions, it also allows nurses to provide a holistic approach to care. The gap in literature could be addressed by assessment of nurses'

knowledge regarding the use of nonpharmacological interventions in dementia care in addition to further research in this area.

References

- American Association of Colleges of Nursing. (2006). The essentials of doctoral education for advanced nursing practice. Retrieved from <http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf>
- Adler, G., Lawrence, B.M., Ounpraseuth, S.T., & Asghar-Ali, A.A. (2015). A survey on dementia training needs among staff at community-based outpatient clinics. *Educational Gerontology, 41*, 903-915. doi:10.1080/03601277.2015.1071549
- Alves, J., Magalhaes, R., Machado, A., Goncalves, O.F., Sampaio, A., & Petrosyan, A. (2013). Non-pharmacological cognitive intervention for aging and dementia: Current perspectives. *World Journal of Clinical Cases, 1*(8), 233-241. doi:10.12998/wjcc.v1.i8.233
- Alzheimer's Association. (2017). Alzheimer's & Dementia. Retrieved from <http://www.alz.org/what-is-dementia.asp>
- Annear, M.J., Toye, C., Elliott, K.J., McInerney, F., Eccleston, C., & Robinson, A. (2017). Dementia knowledge assessment scale (DKAS): Confirmatory factor analysis and comparative subscale scores among an international cohort. *BMC Geriatrics, 17* (1), 168. doi:10.1186/s12877-017-0552-4
- Armstrong, R., Hall, B.J., Doyle, J., & Waters, E. (2011). Scoping the scope of cochrane review. *Journal of Public Health, 33*(1), 147-150. doi:10.1093/pubmed/fdr015
- Azermai, M., Bourgeois, J., Somers, A., & Petrovic, M. (2013). Inappropriate use of psychotropic drugs in older individuals: Implications for practice. *Aging Health, 9*(3), 255-264. doi:10.2217/ahe.13.17

- Beer, C., Horner, B., Almeida, O.P., Scherer, S., Lautenschlager, N.T., Bretland, N., Schaper, F., Flett, P., & Flicker, L. (2009). Current experiences and educational preferences of general practitioners and staff caring for people with dementia living in residential facilities. *BMC Geriatrics*, 9(1), 36. doi:10.1186/1471-2318-9-36
- Blake, M., & Mitchell, G. (2016). Horticultural therapy in dementia care: a literature review. *Nursing Standard*, 30(21), 41-47. doi:10.7748/ns.30.21.41.s44
- Buhr, G., & White, H. (2006). Difficult behaviors in long-term care patients with dementia. *Journal of American Medical Directors Association*, 7 (3), 180-189.
- Burgener, S.C., Buettner, L.B., Beattie, E., & Rose, K.M. (2009). Effectiveness of Community-Based, Nonpharmacological Interventions for Early-Stage Dementia. *Journal of Gerontological Nursing*, 35 (3), 50-57.
- Burns. (2000). The burden of Alzheimer's disease. *Int J Neuropsychopharmacol*, 3(7), 31-38.
- Chandler, R., & Bruneau, B. (2014). Barriers to the management of pain in dementia care. *Nursing Times*, 110 (28), 12, 14-16.
- Chapman, D. P., Williams, S. M., Strine, T. W., Anda, R. F., & Moore, M. J. (2006). Dementia and its implications for public health. *Preventing Chronic Disease: Public Health Research, Practice and Policy*, 3 (2), A34.
- Chodosh, J., Pearson, M.L., Connor, K.I., Vassar, S.D., Kaisey, M., Lee, M.L., & Vickrey, B.G. (2012). A dementia care management intervention: which components improve quality? *The American Journal of Managed Care*, 18 (2), 85-94.
- Craig, J. (2014). Music therapy to reduce agitation in dementia. *Nursing Times*, 110, 12-15.

- Crisp, J., Douglass, C., & Rebeiro, G. (2013). *Fundamentals of nursing*. Chatswood, Australia: Elsevier.
- Crugel, M., Paton, G., Singh, P., Jeboda, R., & Treloar, A. (2012). Antipsychotics in people with dementia: frequency of use and rationale for prescribing in a UK mental health service. *The Psychiatrist*, 36 (5), 165-169.
- Curyo, K.J., McCurry, S.M., Luci, K., Karlin, B.E., Teri, L., & Karel, M.J. (2017). Managing Challenging Behaviors of Dementia in Veterans. *Journal of Gerontological Nursing*, 43(2), 33-43. doi:10.3928/00989134-20160930-01
- Digby, R., Lee, S., & Williams, A. (2016). Nurse empathy and the care of people with dementia. *Australian Journal of Advanced Nursing*, 34(1), 52-59.
- Douglas, S., James, L., & Ballard, C. (2004). Non-pharmacological interventions in dementia. *Advances in Psychiatric Treatment*, 2, 171-177.
- Fineout-Overholt, E., Melnyk, B.M., Stillwell, S.B., & Williamson, K.M. (2010). Evidence-based practice step by step: Critical appraisal of the evidence: part I: An introduction to gathering, evaluating, and recording the evidence. *American Journal of Nursing*, 110 (7), 47-52. doi:10.1097/01.NAJ.0000383935.22721.9c
- Fitzsimmons, S., Barba, B., Stump, M., & Bonner, A. (2014). Nonpharmacological Interventions in Long-Term Care. *Journal of Gerontological Nursing*, 40(5), 10-14.
- Gallagher-Thompson, D., Tzuang, Y., Au, A., Brodaty, H., Charlesworth, G., Gupta, R., Lee, S., Losada, A., & Yea-ing, S. (2012). International Perspectives on Nonpharmacological Best Practices for Dementia Family Caregivers: A Review. *Clinical Gerontologist*, 35, 316–355. doi:1080/07317115.2012.678190

- Gopalakrishnan, S., & Ganeshkumar, P. (2013). Systematic reviews and meta-analysis: Understanding the best evidence in primary healthcare. *Journal of Family Medicine and Primary Care* , 2 (1), 9-14. doi:10.4103/2249-4863.109934
- Holman, D. (2014). The emotional labour of caring for patients at end of life. *End of Life Journal* , 4 (1), 1-5.
- Hsu, M., Flowerdew, R., Parker, M., Fachner, J., & Odell-Miller, H. (2015). Individual music therapy for managing neuropsychiatric symptoms for people with dementia and their cares: a cluster randomised controlled feasibility study. *BMC Geriatrics*, 15(84), 1-19. doi:10.1186/s12877-015-0082-4
- Hurd, M. D., Martorell, F., Delavande, A., Mullen, K.J., & Langa, K. M. (2013). Monetary costs of dementia in the United States. *The New England Journal of Medicine* , 368 (14), 1326-1334. doi:10.1056/NEJM091204629_sup
- Isaksson, U., Graneheim, U.H., Astrom, S., & Karlsson, S. (2011). Physically violent behaviour in dementia care: Characteristics of residents and management of violent situations. *Aging & Mental Health*, 15(5), 573-579. doi:10.1080/13607863.2011.556600
- Jenkins, C. (2014). How can training interventions for nurses promote person-centered dementia care in nursing homes? *Dementia Special*, 16-19.
- Jones, C., Moyle, W., & Stockwell-Smith, G. (2013). Caring for older people with dementia: An exploratory study of staff knowledge and perception of training in three Australian dementia care facilities. *Australasian Journal on Ageing* , 32 (1), 52-55. doi:10.1111/j.1741-6612.2012.00640.x

- Karlin, B., Visnic, S., McGee, J., & Teri, L. (2014). Results From the Mulyisite Implementation of STAR-VA: A Multicomponent Psychosocial Intervention for Managing Challenging Dementia-Related Behaviors of Veterans. *Psychological Services, 11*(2), 200-208. doi:10.1037/a0033683
- Kolanowski, A., Fick, D., Frazer, C., & Penrod, J. (2010). It's About Time: Use of Nonpharmacological Interventions in the Nursing Home. *Journal of Nursing Scholarship, 42*(2), 214-222.
- Kratz, T. (2017). The Diagnosis and Treatment of Behavioral Disorders in Dementia. *Deutsches International Journal, 114*, 447-54. doi:10:3238/arztebl.2017.0447
- Levinson, D. R. (2011). Medicare atypical antipsychotic drug claims for elderly nursing home residents. Retrieved from: <http://www.oig.hhs.gov>
- Lichtwarck, B., Selbaek, G., Kirkevold, O., Rokstad, A.M., Benth, J.S., Myhre, J., Nybakken, S., & Bergh, S. (2016). Targeted interdisciplinary model for evaluation and treatment of neuropsychiatric symptoms: protocol for an effectiveness-implementation cluster randomized hybrid trial . *BMC Psychiatry, 16*:233. doi:10:1186/s12888-016-0944-0
- Lipscomb, C. (2013). Increased Quality of Life For Nursing Home Residents With Dementia: Non-Pharmacological Interventions. *ASHN Update* , 14-16.
- Livingston, G., Kelly, L., Lewis-Holmes, E., Baio, G., Morris, S., Patel, N., Omar, R.Z., Cornelius, K., & Cooper, C. (2014). Non-pharmacological interventions for agitation in dementia: systematic review of randomised controlled trials. *The British Journal of Psychiatry* , 205(6), 436-442.

- Mansfield-Cohen, J., Jensen, B., Resnick, B., & Norris, M. (2012). Knowledge of and Attitudes Toward Nonpharmacological Interventions for Treatment of Behavior Symptoms Associated With Dementia: A Comparison of Physicians, Psychologists, and Nurse Practitioners. *The Gerontologist*, *52*(1), 34-45. doi:10.1093/geront/gnr081
- Margallo-Lana, M., Swann, A., O'Brien, J., Fairbairn, A., Reichelt, K., Potkins, D., Mynt, P., & Ballard, C. (2001). Prevalence and pharmacological management of behavioural and psychological symptoms amongst dementia sufferers living in care environments. *International Journal of Geriatric Psychiatry*, *16* (1), 39-44.
- McDermott, O., Orrell, M., & Ridder, H.M. (2014). The importance of music for people with dementia: the perspective of people with dementia family carers, staff and music therapists. *Aging & Mental Health*, *18*(6), 706-716. doi: 10.1080/13607863.2013.875124
- National Institute of Aging. (2015, October Tuesday). *Health care costs for dementia found greater than for any other disease*. Retrieved August 3, 2017, from National Institute of Aging: <https://www.nih.gov>
- NIA. (2007, October 30). *Newsroom*. Retrieved from National Institute on Aging: <https://www.nia.nih.gov/newsroom/2007/10/one-seven-americans-age-71-and-older-has-some-type-dementia-nih-funded-study>
- NIH. (n.d.). *Dementia information page*. Retrieved July 7, 2017, from National Institute of Neurological Disorders and Stroke: <https://www.ninds.nih.gov/Disorders/All-Disorders/Dementia-Information-Page>

- Nowrangi, M. A., Lyketsos, C. G., & Rosenberg, P. B. (2015). Principles and management of neuropsychiatric symptoms in Alzheimer's dementia. *Alzheimer's Research & Therapy*, 7 (12). doi:10.1186/s13195-015-0096-3
- Palm, R., Kohler, K., Bartholomeyczik, S., & Holle, B. (2014). Assessing the application of non-pharmacological interventions for people with dementia in German nursings: Feasibility and content validity of the dementia care questionnaire (DemCare-Q). *BMC Research*, 7 (1), 950. doi:10.1186/1756-0500-7-950
- Pathak, K., & Montgomery, A. (2015). General practitioners' knowledge, practices, and obstacles in the diagnosis and management of dementia. *Aging & Mental Health*, 19(10), 912-920. doi: 10.1080/13607863.2014.976170
- Pedersen, S.K.A., Andersen, P.N., Logo, R., Andreassen, M., & Sutterlin, S. (2017). Effects of Music on Agitation in Dementia: A Meta-Analysis. *Frontiers in Psychology*, 8, 742. doi:10.3389/fpsyg.2017.00742
- Ploeg, E.S., & O'Connor, D.W. (2010). Evaluation of personalised, one-to-one interaction using Montessori-type activities as a treatment of challenging behaviours in people with dementia: the study protocol of a crossover trial. *BMC Geriatrics*, 10 (1), 3. doi:10.1186/1471-2318-10-3
- Pratt, N., Roughead, E., Salter, A., & Ryan, P. (2010). Factors associated with choice of antipsychotic treatment in elderly veterans: potential confounders for observational studies. *Australia and New Zealand Journal of Public Health*, 34 (6), 589-593.

- Pussegoda, K., Turner, L., Garrity, C., Mayhew, A., Skidmore, B., Stevens, A., et al. (2017). Systematic review adherence to methodological or reporting quality. *Systematic Reviews*, 6 (131), 1-14.
- Rayner, A. V., O'Brien, J. G., & Schoenbachler, B. (2006). Behavior disorders of dementia: Recognition and treatment. *American Journal of Family Physician*, 73 (4), 647-652.
- Reese, T., Theil, D., & Cocker, K. (2016). Behavioral Disorders in Dementia: Appropriate Nondrug Interventions and Antipsychotic Use. *American Family Physician*, 94 (4), 276-282.
- Robinson, A., Eccleston, C., Annear, M., Elliott, K.E., Andrews, S., Stirling, C., et al. (2014). Who Knows, Who Cares? Dementia knowledge among nurses, care workers, and family members of people living with dementia. *Journal of Palliative Care*, 30 (3), 158-165.
- Rodriguez-Mansilla, J., Lopez-Azra, M., Varela-Donoso, E., Montanero-Fernandez, J., Sanchez, B., & Garrido-Ardilla, E. (2015). The effects of ear acupressure, massage therapy and no therapy on symptoms of dementia: a randomized controlled trial. *Clinical Rehabilitation*, 29(7), 683-693. doi:10.1177/0269215514554240
- Rylatt, P. (2012). The benefits of creative therapy for people with dementia. *Nursing Standard*, 26 (33), 42-47.
- Sadowsky, C., & Galvin, J. E. (2012). Guidelines for the management of cognitive and behavioral problems in dementia. *Journal of American Board of Family Medicine*, 25 (3), 350-366.
- Sadowsky, C., & Galvin, J. (2012). Guidelines for the Management of Cognitive and Behavioral Problems in Dementia. *J Am Board Family Medicine*, 350-366. doi:10.1111/nyas.12621

- Samsom, S., Clement, S., Narme, P., Schiaratura, L., & Ehrle, N. (2015). Efficacy of musical interventions in dementia: methodological requirements of nonpharmacological trials . *Annals of the New York Academy of Science*, 1337, 249-255.
- Schneeweiss, S., Setoguchi, S., Brookhart, A., Dormuth, C., & Wang, P. (2007). Risk of death associated with the use of conventional versus atypical antipsychotic drugs among elderly patients. *CMAJ* , 176 (5), 627-632. doi:10.1503/cmaj.061250
- Shibazaki, K., & Marshall, N.A. (2017). Exploring the impact of music concerts in promoting well-being in dementia care. *Aging Mental Health* , 21 (5), 468-476.
doi:10.1080/13607863.2015.1114589
- Smith, D., Lovell, J., Wellen, C., Kennedy, B., Winbolt, M., Young, C., & Ibrahim, J. (2017). A systematic review of medication non-adherence in persons with dementia or cognitive impairment. *PLOS One*, 12(2), 1-19. doi:10.1371/journal.pone.0170651
- Spector, A., Orrell, M., & Goyder, J. (2013). A systematic review of staff training interventions to reduce the behavioural and psychological symptoms of dementia. *Ageing Research Reviews* , 354-364.
- Spira, A. P., & Edelstein, B. A. (2007). Operant conditioning in older adults with Alzheimer's disease. *The Psychological Record* , 57 (3), 409-427.
- Steinberg, M., & Lyketsos, C. (2012). Atypical Antipsychotic Use in Patients With Dementia: Managing Safety Concerns. *Am J Psychiatry* , 169 (9), 900-906.
doi:10.1176/appi.ajp.2012.12030342
- Stevens, K. (2013, May 31). The impact of evidence-based practice in nursing and the next big ideas. *Online Journal Issues Nursing*, 18(2), 4.

- Timmons, S., O'Shea, E., O'Neill, D., Gallagher, P., Siun, A., McArdle, D., et al. (2016). Acute hospital dementia care: results from a national audit. *BMC Geriatrics*, *16*(113), 1-10.
doi:10.1186/s12877-016-0293-3
- Treusch, Y., Page, J., Niemann-Mirmehdi, M., Gutzmann, H., Heinz, A., & Rapp, M. (2011). Apathy and Its Nonpharmacological Treatment in Dementia. *GeroPsych*, *24*(3), 155-164.
doi:10.1024/1662-9647/a000041
- Turro-Garriga, O., Calvo-Perxas, L., Albaladejo, R., Alsina, E., Llinas-Regla, J., Roig, A. M., Serena, J., Vallmajo, N., & Vinas, M. (2015). Pharmaceutical consumption and cost in patients with dementia: A longitudinal study by the Registry of Dementias of Girona (ReDeGi) in Catalonia (Spain). *Archives of Gerontology and Geriatrics*, *60* (3), 448-452.
- Vernooij-Dassen, M., Vasse, E., Zuidema, S., Cohen-Mansfield, J., & Moyle, W. (2010). Psychosocial interventions for dementia patients in long-term care. *International Psychogeriatrics*, *22*(7), 1121-1128. doi:10.1017/S1041610210001365
- Wimo, A., & Norlund, A. (2007). Cost-effectiveness of treatments for Alzheimer's dementia. *Expert Rev. Pharmacoeconomics Outcomes Res.*, *7* (1), 83-90.