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Program for Dementia Group Music Therapy in Long-Term Care

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Walden University
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Abstract

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

There is a need for evidence-based nonpharmacological nursing management skills for dementia that are low-cost and effective in managing common symptoms such as agitation. Music-based therapy is a nonpharmacological intervention shown by evidence-based studies to be effective in the management of dementia. The gap in practice is that there was no evidence-based group music therapy programs in this family-based long-term care setting for dementia patients. This project employed a multidisciplinary effort to formulate an evidence-based clinical practice guideline for implementing group music therapy program. The clinical practice question was whether a multidisciplinary team can agree on the guideline for implementing group music therapy for this small group facility. The humanistic theory argues that when a person has dementia they lose basic human needs, such as identity, comfort, and attachment, which are crucial in maintaining their personality. Despite a person's development of dementia, they should maintain their value, so a person-centered method is crucial. The multidisciplinary team of four, made up of licensed practical nurses, nursing assistants, nurse practitioners, and a local music therapist, met via videoconference and used an evidence-based practice approach to rate and reach consensus on a clinical practice guideline for implementing the music therapy program, using the AGREE II assessment tool. The AGREE II tool finding ($M = 7$), where 1 indicates *strongly disagree* and 7 indicates *strongly agree*, demonstrated consensus. The implementation of this clinical practice guideline has the potential to bring about a positive social change by reducing agitation symptoms and improving the quality of life for persons with dementia.

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Table of Contents

List of Tables

Section 1: Nature of the Project

Introduction

Dementia is an umbrella term to describe problems with cognition, thinking, and memory, including the inability to learn new information and recall previously learned information, and the inability to plan, organize, and think in the abstract (Harrison-Dening, 2013). Agitation is a common outburst behavior associated with dementia. This outburst behavior is characterized as the presentation of an inappropriate verbal, vocal, or motor activity that is not explained by needs or confusion this according to the Cohen-Mansfield Agitation Inventory (CMAI). Music-based therapy is a nonpharmacological intervention proven to be effective in the management of dementia. The gap in practice is that there was no evidence-based group music therapy programs in this small family nursing home which serves several patients with dementia. This project employed a multidisciplinary effort to formulate an evidence-based program based on a clinical practice guideline for implementing group music therapy to reduce anxiety and agitation. The implementation of this program may result in a decrease in agitation and an improved quality of life for person with dementia.

Problem Statement

The World Health Organization (WHO, 2020) reported that dementia affects about 50 million individuals worldwide, with nearly 10 million new cases per year, and that there was a significant increase in dementia cases from 2015 to 2017. In the United

States, more than 5 million people have dementia, and the country spends more than $200 billion per year to care for patients with the condition (Kvam, 2015). This increasing number of dementia cases is a critical health issue in prompting treatment methods that have both clinical beneficence and cost-effectiveness.

Dementia includes health problems that affect an individual's cognition, thought process, and memory. Some studies have associated dementia with the inability to learn new information and recall previously acquired information or the failure to plan, organize, and think in the abstract (Mecca & Dyck, 2020). One of the most significant symptoms in dementia management is agitation. According to a cross-sectional study, agitation and irritability have a prevalence rate of 76% and 60%, respectively (Koenig et al., 2015). Both agitation and irritability interfere with patients' quality of life and stress their nurses and caregivers (Koenig et al., 2015). According to Koenig et al. (2015), both irritability and agitation increase the morbidity of people living with dementia and enhance caregiver stress.

A recent study has suggested that nonpharmacological approaches are more cost-effective than pharmacological treatment (Steinbeisser et al., 2020). Additionally, increasing research compares evidence-based nonpharmaceutical intervention to pharmacologic intervention (Ijaopo, 2017). Recent studies argue that modifying the dementia diagnosis is significantly impacted by implementing preventive interventions, such as memory enhancement and other nonpharmacological methods (Gold et al., 2019; Rakesh et al., 2017). Prince et al. (2013) noted that the projections of individuals with

dementia could be modified significantly by implementing preventive interventions and improving treatment and care. One nonpharmacological intervention is group music therapy, which has shown signs of viability as a treatment modality in controlling agitation of patients with dementia (Ijaopo, 2017). Group music therapy has provided a source of positive intervention for individuals with altered cognitions (Garrido & Davidson, 2013).

The adult family nursing home where this project took place has a group of adult patients with dementia living together (memory care). The gap in nursing care is that there is currently no group music therapy program for dementia patients for controlling agitation (Kvam, 2015; Schneider, 2018). This problem is relevant and meaningful for society and the healthcare sector as it will inform geriatric care professionals to explore the nonpharmacological interventions for dementia. This project's success can provide an effective tool for healthcare practitioners working with dementia patients.

Purpose Statement

The gap in nursing care is that there is currently no group music therapy program for dementia patients for controlling agitation (Kvam, 2015; Schneider, 2018). This project utilized an interprofessional team to develop guidelines for implementing a music therapy program. The guideline practice-focused question was Will an interprofessional team develop consensus on a music therapy program that can be piloted with patients in this memory care facility? This project has the potential for staff to pilot a music therapy program and evaluate its effectiveness in reducing the occurrences of agitation in elderly

dementia residents in an adult care facility. The purpose of this project was to develop guidelines for a music therapy program to reduce the occurrences of agitation in dementia residents in an adult care facility.

Nature of the Doctoral Project

The project followed the Walden University Guidelines for Developing Clinical Practice Guidelines. A literature review was conducted using major databases and the recommendations and guidelines of professional organizations. The sources of evidence included CINAHL, EBSCO, Cochrane Library, Medline, PubMed database, OVID, and ProQuest. Keywords for the literature search included *group music therapy*, *geriatrics*, *dementia*, *adult family home*, and *agitation control*. I focused on peer-reviewed articles, full-text, and English only over the last 5 years. Older seminal work was also included. I summarized the literature using the GRADE criteria and included guidelines from the Alzheimer's Association and the American Music Therapy Association. I then developed a draft of the program guidelines for the committee to review, discuss, and revise.

The team was composed of licensed practical nurses (LPNs), nursing assistants (NAs), nurse practitioners (NPs), and a local music therapist. This group met using virtual conferencing to discuss and to reach a consensus on the guideline. The multidisciplinary team then rated this guideline using the AGREE II tool to assure consistent agreement. The guideline was then sent to the nursing home's leadership for input and potential approval in the future. The project was presented as the development of a program. Although beyond the scope of this study, the program should then be

evaluated to determine the effectiveness of using group music intervention to reduce agitation in dementia-afflicted residents in an adult care setting facility. This project has the potential for staff to pilot a music therapy program and evaluate its effectiveness in reducing the occurrences of agitation in dementia elderly residents in an adult care facility.

Significance

Positive social change leads to the improvement of human and social conditions and the betterment of society. This project will help both nurses and other providers change their routine for handling dementia patients by encouraging them to approach the care management of these patients more holistically. These social benefits are in line with the mission of Walden University, which concerns the development of scholar-practitioners who can effect positive social change. Thus, as a beneficiary of Walden University's career development agenda, this project should foster competency in the healthcare sector proportional to health outcomes in society (Fukada, 2018). This project will also increase the awareness of the benefits and effectiveness of nonpharmacological interventions to dementia and discuss various methodologies or dementia management through music therapy. That way, this project may improve stresses revolving around dementia management and closure of the practice gap in nonpharmaceutical options for caregivers by using group music therapy.

Group music intervention can be regarded as a safe and cost-effective approach in managing dementia symptoms in elderly patients. While replication and generalization to

other settings and countries are critical, this method promises great potential in replacing pharmaceutical drugs to manage agitation and aggressive behavior brought about by dementia in elderly patients.

Summary

Group music therapy can significantly decrease agitation among elderly patients who have dementia living in an adult care facility. The gap in practice is that there is no evidence-based group music therapy programs in this family-based long-term care setting with dementia patients. This project involved a multidisciplinary effort to formulate an evidence-based program with guidelines for implementing group music therapy. In the future, the intervention can then be piloted with the hope that it will improve the quality of life for persons with dementia. In Section 2, I discuss the background, concepts, and content.

Section 2: Background and Context

Introduction

Group music therapy can significantly decrease agitation among elderly patients who have dementia living in an adult care facility. The gap in practice is that there are no evidence-based group music therapy programs in this family-based long-term care setting with dementia patients. This project employed a multidisciplinary effort to formulate an evidence-based program with guidelines for implementing group music therapy. The guideline practice-focused question was Will an interprofessional team develop consensus on a music therapy program that can be piloted with patients in this adult care facility to improve the quality of life for persons with dementia? This section includes further discussion of the concepts, relevance to nursing practice, local context, and the role of the DNP student.

Concepts, Models, and Theories

Humanistic Theory

The project is based on the principles of the humanistic theory, which posits that people surpass the sum of their parts, and their existence is connected explicitly to their human and cosmic environment (Renger & Macaskill 2021). Furthermore, the theory argues that human beings are conscious because they are aware of themselves and the contexts they occupy (Lyons, 2019). The same ability human beings have that gives them a choice brings them responsibility, and therefore, people are intentional with their goals

and plan for future events in which they derive meaning and value (DeRobertis & Bland, 2018). Hence, the theory argues that when a person has dementia, they lose basic human needs, such as identity, comfort, and attachment, which are crucial in maintaining their personality (Fazio et al. 2017; Quinn, 2017). Notably, despite a person's development of dementia, they should maintain their value, so a person-centered method is the most crucial theoretical framework to use. In this approach, elderly patients diagnosed with dementia are treated with dignity, their personal preferences, and opinions are respected, and their personality are taken into account. It considers personal history and their experiences, emphasizing the subjectivity of dementia, which becomes essential during the treatment process.

Theory of Person-Centered Care

Professor Thomas Kitwood applied the principles of person-centered care with patients with dementia in the 1990s (see McDermott et al., 2014). In this approach, the personhood of an individual with dementia forms the basis of care (McDermott et al., 2014). Geriatric patients with dementia are treated with dignity, their personal preferences are acknowledged, their opinions are respected, and their personality is taken into account. Moreover, this theory recognizes that the personal psychology of individuals with dementia is impacted by the social psychology of the care culture (McDermott et al., 2014). In other words, the quality of the therapeutic relationship between a person with dementia and a caregiver affects the patient's psychological wellbeing.

The person-centered care approach was adopted because of its applicability in group music therapy. Music may help protect a person's identity or support the process of redefining identity through positive person work (McDermott et al., 2014). It implies that in the case of demented patients, recognizing a familiar song can boost the morale of a patient who realizes that he/she can still recall the song even though there are many other things that they forget. This meaningful realization has a beneficial effect on the patient's identity.

Theory of Music Therapy

The theory of music mood and movement (MMM) was developed to improve physical activities and health outcomes. Using concepts of assertion, hypothesis synthesizing, the theory of music, mood, and movement (MMM) theory was constructed using physical activity recommendations and music theory. Moreover, MMM theory was developed by integrating music's psychophysiological reactions to enhance physical activity and enhance health results. It is proposed that music affects mood, serves as a trigger for mobility, and promotes physical exercise more pleasant, resulting in reduced body weight, blood pressure, sugar levels, cardiac potential risk control, and increased quality of life. It is a middle-range theory that needs empirical testing to determine its effectiveness in the expected outcomes. The theory is classified as a middle-range because it meets the criteria for this classification. The criteria include a moderate abstraction level and comprehensiveness with distinct boundaries and scope (Murrock & Higgins, 2009). Music has also been found to be a critical factor in emotion regulation

(ER). ER is essential in the process of treating mental and psychiatric health issues like dementia. Intentional music intervention with the involvement of a therapist helps improve behavioral symptoms like depression and agitation (Ng & Schutz, 2018). MMM theory was developed based on the nature of the music in human life (Ruud, 2006). It was achieved by focusing on the physiological and psychological responses seen in the body due to listening to music. The theory can develop the hypothesis that can connect improved healthcare outcomes, physical activity, and music (Murrock & Higgins, 2009). Music is also associated with promoting "initiative," "expression," and "clarification" (Ruud, 2006). The middle-range theory is didactic, generates verifiable propositions, and can influence nursing studies and practice because it was created from physical activity standards. The middle-range concept must be evaluated to assess its applicability for nurses developing physical activity programs to enhance healthcare results throughout communities.

This technique is mediated by caregivers who use appropriate strategies based on Active Music Therapy–Psychological Approach (AMT-PA), Active Musical Therapy–Family Caregiver (AMT-FC), and Active Music Therapy Rehabilitative Approach (AMT-RA). The psychological system is based on the active techniques, which concern direct interactions with people with dementia using chiefly musical improvisation, to decrease the psychological and behavioral symptoms and increase relational skills and skills of informing (Montánchez Torres et al., 2016). Receptive techniques in music therapy involve verbal and elaborative competencies that a person with dementia might,

unfortunately, have lost. Rehabilitative music therapy models are mainly based on active approaches, such as music exercises that constitute a powerful motor, cognitive, and sensory rehabilitation tool.

Music therapy also presents factors that characterize a therapeutic intervention. A reference model defines theoretical and practical details that support the intervention, the presence of a therapeutic setting, the possibility of determining targets and therapeutic strategies of intervention with adequate awareness, and the possibility of verifying the therapeutic results achieved (Hashefi, 2016). In the clinical practice, music therapy approaches and other music interventions with different and specific characteristics can be found, such as generic music-based intervention (MBI), caregiver singing (CS,) individualized listening to music (ILM), and background music (BM).

Caregivers singing is another example of group music intervention as an alternative treatment method for people living with dementia. CS consists of caregivers' singing and vocalism to promote contacts and improve relationships with dementia patients (Tamplin et al., 2018). The care process can often cause stress, confusion, and disorientation to which a person living with dementia responds with behavior that may be defensive, resisting, or aggressive (Tamplin et al., 2018). Apart from the resulting uneasy situation, a caregiver also experiences difficulties and fatigue in exerting nursing activities. Nevertheless, caregivers ought to equip themselves with the relevant knowledge and skills, fostering a practical clinal approach to music therapy to reduce the practice gap. Nursing professionals may find value in addressing this project's topic.

Additionally, the meta-analysis of the effects of music on agitation reveals that music in older people positively impacts the behavior of individuals with dementia (Pedersen et al., 2017). Twelve studies showed that listening to music reduced unwarranted behaviors like agitation and proved music therapy's clinical relevance (Pedersen et al., 2017). Leggieri et al. (2019) supported these conclusions and emphasized that nontraditional dementia care approaches, such as music intervention, effectively manage agitation among dementia patients. According to the study by Heiderscheit and Madson (2015), music therapy is becoming more prevalent in outpatient respite, daycare settings, and community-based settings because many facilities recognize its beneficial effect in reducing frustration agitation in elderly patients with dementia.

Also, music activities in care homes offer opportunities for social interactions between the residents and staff (McDermott et al., 2014). It means that a meaningful musical interaction often results in an emotional connection between the patient and caregiver. Consequently, this therapeutic relationship fosters a positive home environment and better social psychology within the nursing care facility.

Numerous studies have been conducted to determine the importance of music in managing dementia. In a study by Suzuki et al. (2007), the researchers conducted group music therapy for 3 months. They noted that the score for paranoid behavior and delusion improved after implementing the intervention. Choi et al. (2009) studied the impact of group music therapy on the psychological and behavioral symptoms of people with dementia. The patients who received 50 minutes of music intervention 3 times a week for

5 consecutive weeks reported improvement in agitation. Moreover, the total scores of the caregivers and patients were lower in the intervention group than in the control group. Their findings indicated that music could be used to enhance psychological and behavioral symptoms, including agitation.

In a systematic review, Skingley and Vella-Burrows (2010) claimed that listening to music in older adults has positive effects on individuals with dementia. This review showed that listening to music reduces unwarranted behaviors like agitation. According to Cooke et al. (2010), nontraditional approaches in dementia care, such as music intervention, effectively manage agitation among dementia patients. In a separate study, Kelleher (2001) noted that music therapy is becoming more prevalent in outpatient respite and daycare settings and community-based settings because many facilities recognize its beneficial effect in reducing the frustration and agitation of elderly patients with dementia.

Relevance to Nursing Practice

Dementia is an umbrella term to describe problems with cognition, thinking, and memory, including the inability to learn new information, recall previously learned information, and plan, organize and think in the abstract (Harrison-Dening, 2013). Agitation is an expected outburst behavior associated with dementia. This outburst behavior is characterized as presenting an inappropriate verbal, vocal, or motor activity that is not explained by needs or confusion, according to the CMAI.

Prevalence of Dementia

The WHO reported that the number of people living with dementia worldwide is currently around 50 million, and it is projected that this number will double by 2030 and triple by 2050. The WHO has estimated the addition of 10 million cases of dementia annually. These predictions are attributed to the expected increase in dementia cases in people living in low- and middle-income countries. The WHO also discussed the significance of dementia, considering that the high global prevalence and economic impact not only on people with dementia but also on families, careers, and society. Dementia is one of the significant reasons for disability and dependency among the elderly population globally. The stigma and social exclusion associated with the disease present a significant public health challenge Sullivan (2012).

The global health community, including the WHO, has recognized the need for action and had placed dementia on the public health agenda, which has compelled recent research. In May 2017, the World Health Assembly introduced the global action plan on the public health response to dementia. The action plan aims to improve the lives of people living with dementia, their families, and carers while decreasing the impact of dementia on communities and countries. Additionally, the global action plan has a comprehensive blueprint for action across seven areas: (a) making dementia a public health priority; (b) increasing dementia awareness, inclusion, and friendliness; (c) reducing the risk of dementia; (e) improving diagnosis and care; (f) supporting dementia

careers; (g) enhancing health information systems for dementia; and (h) fostering research and innovation.

As Gray et al. (2017) explained, the problem statement describes the issue that the researcher intends to investigate. Management of agitation in geriatric patients who have dementia is particularly challenging. For example, in the United States, 5% to 16% of individuals ages 65 to 85 and 40% of individuals older than 85 years have dementia; of them, 51% suffer from irritability (Yohanna & Cifu, 2017, p. 1057). Davies et al. (2018) confirmed that in people with dementia, psychological and behavioral symptoms include aggression and agitation. Greve et al. (2016) claimed that agitation and aggression tend to be the most distressing for family and caregivers and are often cited as a reason for placing patients with dementia in nursing homes. Davies et al. (2018) stated that drugs and nonpharmacological treatments may effectively manage agitation in clients with dementia.

However, Greve et al. (2016) argued that (a) the most commonly used drugs for treating agitation and aggression have minimal efficacy, and (b) many elderly individuals have chronic and comorbid conditions that lead to poor tolerance of drugs. Therefore, there is a need to explore the effectiveness of nonpharmacologic interventions. An evidence-based problem that may be addressed using quantitative research methods is limited efficacy and poor tolerance of drug therapy used to treat agitation in geriatric patients with dementia. The meta-analysis conducted by Pedersen et al. (2017) found that

music intervention had a positive medium overall effect on agitation in patients with dementia.

Nursing Interventions

Dementia patients who stay at nursing homes or assisted living facilities are at risk of poor quality of life because of the poor environment and nature of the condition (Calkins 2018, p. 115; Wood et al., 2018). These patients often lose their ability to cope and function. The environment in which dementia people live influences their behavior and experiences (Allen et al., 2017). There is an interdisciplinary consensus that nonpharmacological interventions better the quality of life of these patients (Chalfont et al., 2020; Dyer et al. 2018; Sass et al. 2021). The interventions have no relation with antipsychotics to manage agitation, apathy, or delusions (Wood et al., 2018). Implementing strategies that improve the quality of care for this cohort of patients is crucial because they deserve to have a meaningful life, which can be assisted by providing meaningful care (Rapaport et al. 2018; Reilly & Houghton 2019).

Most DNPs are hired into general practice, and few are hired in nursing or assisted living facilities where people with dementia reside. For instance, two thirds of general practices in Australia have nurse or nurse-led clinics (Gibson et al., 2020). In the United Kingdom, the literacy levels in social care are low, which is also experienced across the globe (Surr et al., 2017). Reasons given include an increasing migrant population, which means that many people do not understand English or use English as a second language. It is also an issue in an increasingly diverse United States. DNPs with

specialization towards dementia care are crucial because they provide support, education, and leadership and improve patients' quality of life. Research has indicated that personal care is the most effective in managing symptoms such as aggressiveness and agitation (Helleberg & Hauge, 2014; Kuot et al. 2020). This has an implication in practice guidelines because a music therapy program is an effective tool that can be used by healthcare providers to teach dementia patients about other nonpharmacological approaches of managing agitation and aggressiveness. A music therapy program enhances the vitality of patients and staffs in the nonpharmacological management of dementia (Helleberg & Hauge, 2014). This is supported in several studies that indicate that communication and attitudes towards the patients and the information they possess about the disease are crucial in the prevention of development of symptoms and exacerbation of the disease.

Dementia affects patients' quality of life and adds stress to their nurses and caregivers (Alzheimer Association, 2012). Moreover, agitation can also cause severe harm not only to patients but also to families, their caregivers, and to the community at large. There is a gap in dementia care in nursing and there is the need to identify nonpharmacological. According to Gibson et al. (2020) and Dining et al. (2019), there are barriers in the therapy options because of the complexity of the issue, which leads to a perception that nothing can be done, and therapy options are absent. Surr et al. (2017) posit that a bulk of people who take care of dementia patients are unqualified, poorly paid, and of low status, which impedes the care process. Furthermore, people who work

in dementia care have a hard time because of tension and other neuropsychiatric conditions (Helleberg & Hauge, 2014, p. 1). Therefore, it is pertinent that nurses understand nonpharmacological practices that can lower agitation, care-resistant behavior, and neuropsychiatric symptoms to better patients' quality of life and improve their satisfaction rates.

This project is based upon the study of Ridder et al. (2013 that music therapy can be used to control and manage neuropsychiatric symptoms, including agitation. Their findings showed that agitation increased during the usual care, whereas it declined during the music therapy session. The researchers, therefore, concluded that music therapy decreases agitation and prevents drug use. Skingley and Vella-Burrows (2010) found that some of their participants claimed that music is critical in maintaining their wellbeing and independence. Also, music reduced their loneliness and stress. It also prevents isolation. In this DNP project, behaviors prompted by agitation, if reduced, may help the elderly suffering from dementia become more sociable and interactive. Hostile behaviors such as hitting, kicking, making sexual advances, and other aggressive behaviors decrease after exposure to music therapy intervention. These behaviors will be used to assess the effectiveness of the developed clinical practice guideline.

Skingley and Vella-Burrows (2010) also noted that nursing home residents with dementia have an increase in agitation and use of psychotropic medication, a decrease in quality of life, and require additional attention from caregivers, which increases their burden (Ridder et al., 2013). The Crisis Prevention Institute ([CPI], 2013) addresses the

challenges of caring for residents with dementia in long-term care. The agency suggested preventing or minimizing negative behaviors. It is a must to learn the proper communicating technique with the individual with dementia and create positive emotional experiences for these patients to help diminish distress and behavior problems.

The critical part of care for patients with dementia is to help them foster a safe physical environment. The implementation of evidence-based practice is significant to dementia and can boost to achieve and support good outcomes in patients changed psychological state. People with dementia who reside in an adult care facility or residential settings are put through various interventions in their care regimen that can impact the quality of their lives and generate either positive or negative outcomes. This program is intended to contribute to the existing body of knowledge on residential dementia care by providing results on the positive outcomes of reducing agitation using music intervention therapy.

Local Background and Context

The setting for this doctoral project is a family group home for eldercare, which has 12 residents ages 60-80 years old diagnosed with all stages of dementia based on the DSM-V (American Psychiatric Association, 1994) and Mini-Mental Status Examination (MMSE).

Role of the DNP Student

The DNP's role was guiding the project, offering information, and acting as a project team leader to develop the guideline, I acted as the project manager for this

process. The main goal was to accumulate data from the literature and valued professional resources to outline the evidence-based recommendations.

Role of the Project Team

The project team was multi-disciplinary and contained LPNs, NAs, nurse practitioners, and a consultant on music therapy from a local university. The geriatric nurse specialist will eventually educate staff about the importance of group music therapy among elderly patients with dementia in decreasing agitation. The music specialist collaborated with the developers of group music therapy, then reviewed the final program.

Summary

Dementia care is challenging for care providers. The role of the DNP geriatric specialist is to seek out therapeutic options to address the humanistic issues of improving the quality of life for this growing population. Literature supports the need for non-pharmacologic interventions and the positive influence of music therapy. Section 3 will describe the collection and analysis of evidence.

Section 3: Collection and Analysis of Evidence

Introduction

Group music therapy can significantly decrease agitation among elderly patients who have dementia living in an adult care facility. The gap in practice is that there are no evidence-based group music therapy programs in this family-based long-term care setting with dementia patients. This project employed a multidisciplinary effort to formulate an evidence-based program with guidelines for implementing group music therapy. In this Section, I further discuss the process the group followed and the steps taken to protect human subjects, and the analysis of evidence.

Practice-Focused Question

The practice-focused question was: Will an interprofessional team develop consensus on a music therapy program that can be used in the future with patients in this adult care facility to improve the quality of life for persons with dementia?

Sources of Evidence

According to the evidence reviewed, the major symptoms of dementia included agitation, wandering and depression. These symptoms are common in most patients. Even with pharmacological treatment, they tend to persist. This, in turn, affects the quality of life of most patients and their families. In their study, Ray and Mittelman investigated the effectiveness of music therapy (nonpharmacological therapy) on 132 mildly ill dementia patients in a nursing home to know its effectiveness. The study was

done by administering an assessment 2 weeks before the intervention, and then a follow-up assessment 2 weeks after the intervention. The findings showed a relation between music therapy and an improvement in the neuropsychiatric symptoms that include agitation and depression (Ray & Mittelman, 2017). This showed that, unlike pharmacological treatments, music therapy might be effective for such symptoms. However, the level of evidence in this study was very low since it used an exploratory design. The participants acted as their control in evaluating the effectiveness of music therapy on agitation, wandering and depressive symptoms. The lack of a common control experiment for all the participants in this experiment is likely to have led to the collection of biased data, and which was inconsistent hence not recommendable for use in this research. The accuracy of the data collected is also questionable since there was a high level of gender bias, with more than 80% of the participants being female; hence, it was not possible to generalize the findings.

In another study, a meta-analysis study, Pedersen et al. (2017) investigated the effectiveness of music therapy on agitation, specifically. This was done by doing a meta-analysis of 12 articles about the subject. This was meant to look at its effectiveness as an alternative measure of controlling the psychological and organizational burden posed by dementia patients. As much as there are pharmacological treatments that effectively control it, other interventions were thought to be important (Pedersen et al., 2017). The researchers in this study found out that music therapy has a moderate effect on agitation, and therefore it was a clinically relevant therapy. Their findings also suggested that

subtypes of music therapy may be effective interventions for patients with agitation, showing a promising future in the use of music in dementia patients (Pedersen et al., 2017). The level of evidence of this article was high and hence recommendable for use in this project. The 12 articles used in the meta-analysis used a randomized study control design and were obtained from highly reliable databases, hence reducing chances of data bias. There was also a set guideline for the inclusion of the articles into the study, which avoided inconsistency of the articles used. All the articles included in this study were published between October 2015 and February 2016. Therefore, there was a minimal publication bias, and also, the period of data collection was similar. In addition, all the articles used in this study had used elderly people as the participants in their research. Hence, the data were highly accurate since similar findings were likely to have been made in the different articles.

Another meta-analysis of randomized controlled trials by Li et al. (2019) determined the effectiveness of music therapy in dementia patients by specifically looking at reducing depression. After a review of seven studies, Li et al. found that music helps in the reduction of depression at 6, 8, and 16 weeks. However, at weeks 3-, 4-, and 12- and at 5-months during the intervention, no effect was noted. The conclusion was that music therapy has the potential of reducing depression. However, effectiveness is significantly enhanced by the presence of a music therapist (Li et al., 2019). The study used a meta-analysis in which studies were sampled randomly and were also obtained from highly recommendable databases such as MEDLINE, CINAHL, Angeline,

PsycINFO, Cochrane and PubMed. All the articles included in this study were required to have used randomized control trials, examined the intervention effects of music therapy on dementia, and had been published in English or Chinese. As a result of these inclusion criteria, there was a little bias associated with it. Also, articles that involved music therapy in combination with pharmaceutical products were not included in the study. Hence the study had consistency and accuracy in its sampling process. Therefore, the findings made in this meta-analysis is highly recommendable for use in this project.

This project used a music intervention approach. The approach involves the use of music by the targeted patients with the assistance of music therapists. According to Leggieri et al. (2019), this intervention was greatly reliable on patients with dementia, and hence it is recommendable for this study.

Ethical Protection of Participants

The format of the project is program development involving volunteers. There are no patient participants. The facility considers this part of the quality improvement plan and does not require internal institutional review board (IRB) approval. The approval for the program and project execution was received from the Walden University Institutional Review Board (IRB) on December 28, 2021. When the IRB approval (#12-29-21-0971661) was obtained, the consent form was shared with project participants.

Analysis and Synthesis

The multidisciplinary project team used the Delphi method to achieve consensus. The draft guideline was placed into a shared Google document, which allows access for simultaneous editing by those who are allowed to participate. After each round of comments, the updated draft was again reviewed until the group signaled their agreement.

The AGREE II tool was then used to assess whether the clinical practice guideline for implementing music therapy would serve the project's intended purpose. For music therapy to be feasible therapy, it will do so via counter-checking if all stakeholders (team members) are involved. In addition, the clarity of the presented therapy was determined in detail by looking at specific components in the tool, basing the argument on the views of the experts. The guideline was then sent to the home's leadership for adoption and piloting.

Summary

Dementia is a current occurrence nowadays among the elderly population, and it is more prevalent in today's society than ever before. It was the objective of this program to determine if evidence supports that a group music therapy is a good intervention in reducing agitation and anxiety that the dementia residents experiencing in a long term care facility. This writer believed that the nonpharmacological approach of music intervention was a less threatening approach to the dementia residents as well as to caregivers. It was the ultimate goal that the implementation of the evidence-based guidelines would help dementia residents decrease agitation and anxiety.

Section 4 of this paper will present the project results, the implications to practice, the strength and limitations of the project, and a proposal for recommendations to address the gap in practice. Section 5 will present an analysis of self and plan to disseminate the project.

Section 4: Findings and Recommendations

Introduction

Group music therapy can significantly decrease agitation among elderly patients who have dementia living in an adult care facility (Ridder et al. 2013). The gap in practice was that there were no evidence-based guidelines on the effectiveness of the group-music therapy initiatives in this family-based long-term care setting with dementia patients. This project employed a multidisciplinary effort to formulate an evidence-based program with guidelines for implementing group music therapy. The practice-focused question was: Will an interprofessional team develop consensus on a music therapy program that can be used in the future with patients in this adult care facility to improve the quality of life for persons with dementia? The goal for this DNP project was to design program guidelines for the use of group music therapy in elderly patients with dementia. A literature review was conducted to establish a framework of evidence related to the subject matter.

Process Steps

Thematic searches were conducted in the MEDLINE, CINAHL, Angeline, PsycINFO, Cochrane and PubMed databases using the terms anxiety, dementia, music therapy, agitation, and Alzheimer's disease. Results included references to over 60 sources, including English language textbooks and national and international scholarly peer-reviewed journal articles. The literature was evaluated using the CMAI-short form

tool. Literature was then synthesized for the committee, which was used to develop the first draft of the music therapy program.

I developed the initial clinical practice guideline that would be used for the development of music therapy program plan. An interprofessional team was assembled with the aim of working collaboratively to develop and reach a consensus on a music therapy program that can be used in the future with patients in this adult care facility to improve the quality of life for persons with dementia. The multidisciplinary team of four included geriatric nursing staff (i.e., LPNs, NAs, and NPs) and a consultant on music therapy from a local university. Geriatric nurses aid in the assessment of the patients. The nurses received online training on implementation of the intervention clinical guidelines.

The online training was done to ensure that providers understood the intervention's fidelity, quality, and potential threats that undermine the projected outcomes. The team met using video meetings due to varying schedules and COVID restrictions. The draft guideline was placed into a Google document, which allowed access for simultaneous editing by those who were authorized to participate. The multidisciplinary team used the Delphi method to achieve consensus. After each round of comments, the updated draft was again reviewed until the group signaled their agreement.

The final clinical practice guideline for group music therapy comprised mainly the use of a singing group, with eight lists of songs for the group developed by the research team, based on the participants' preferences as indicated below.

Protocol

1. Patients are referred from their respective nursing homes.
2. Nursing home patients are assessed for eligibility criteria of patients from nursing homes based on the following screening criteria:
    - 65 years or older, full nursing home residents (i.e., spend 24hrs/day at a care home)
    - clinical diagnosis of dementia based on ICD-10 is a decline in memory, cognitive abilities, and daily living activities.
    - Clinical Dementia Rating (CDR Score 0.5–2.0)
    - Mini-Mental State Examinations (MSSE) score of less than 26
    - Montgomery-Asberg Depression Rating Scale (MADRS) of 8
3. Patients undergo a 20-minute assessment with a trained music therapist to determine the patient's biography, culture, personal strengths, disabilities, and other useful factors in group music therapy sessions.
4. Block 1 comprises engaging and persuasive sessions. The activities of group music therapy are simple, including the completion of verbal tasks to novel music structures, and the use of short phrases to remember messages.
5. Block 2 comprises emotional and personal attributes, where the music used is familiar and gives the patient an empathetic focus. The music is designed in a manner that facilitates mood and identity. The aim is to encourage

reminiscence of beautiful personal memories, which will stimulate patients' empathetic emotions through music.

6. Block 3 comprises sessions that promote socio-physical and synchronous attributes. In this session, familiar music selected is paired with a strong music beat and few movements to enhance physical activeness. Encourage the participants to remain in synchrony with each other and engage socially and promote physical activeness. Rhythmical phrases are included in the music, to increase the sense of mastery.
7. Block 4 includes all aspects that encompass the other blocks. In this session, the participants experience live music in a fun manner, with each participant learning how to sing the familiar songs. The selected familiar songs provide rich emotional experiences. The participant responds to music appropriately, synchronizing the physical movements, and voice with music.
8. After attending all the four-block sessions, assess patient's outcomes using the evaluation tool (see Appendix).

Each of the singing sessions have a different set of songs, except sad and goodbye songs. The music therapist will be facilitating the singing therapy using various musical instruments such as the band and Yamaha keyboard. The participants are issued with lyrics of the songs provided on colorful sheets. This approach is one ranked as the best evidence practice it promotes a sense of self-worth among the dementia patients, increases their sense of belonging and accomplishment, and, more so, the intervention

ensures that the participants experience spontaneous mutual interaction (Cho, 2018). To ensure consistency of the content, the singing group is protocolized; that is, the songs are predetermined for each session based on the patient's preferences, to ensure that the participants experience relaxation and stimulation.

The AGREE II tool was then used to assess whether the music therapy program would serve the project's intended purpose. For music therapy to be feasible therapy, it needs to be done via counter-checking if all stakeholders (team members) are involved. In addition, the clarity of the presented therapy was reviewed in detail by looking at specific components in the tool, basing the argument on the views of the experts.

Agree II Tool Results

The consensus of the multidisciplinary team engaged in the study was obtained through the Agree II tool, which is an instrument that gauges the quality of the study and the methodologies employed to attain the results based on six domains as shown in Table 1. The Agree II tool results are presented as a percentage in Table 2. The percentage was calculating by the average of actual Likert Scale on the 23 items, then multiplying it by 100. A summary of each domain appraiser is provided in Table 1.

Table 1

AGREE II Instrument Domains and Items

Domain	Item	Description
Scope and purpose	1	Specific description of the overall objectives and guidelines.
	2	Mental health questions described by the guidelines are specific.
	3	Specific description of the population (patients/public) to whom the guideline will be applied.
Stakeholder involvement	4	Guideline development team include relevant representatives from all professional groups.
	5	Views, preferences and perceptions of the target population is well assessed.
	6	Clear definition of the target users for the guideline being developed.
Rigor of development	7	Evidence searched using systematic methods.
	8	Clear description of selection criteria of the evidence.
	9	Clear description of the evidence strengths and limitations.
	10	Clear description of methods applied to formulate recommendations.
	11	Health risks, side effects and benefits assessed when formulating recommendations.
	12	Explicit relationship between supporting evidence and recommendations.
	13	External review of the guideline by experts is done prior to publishing it.
	14	Well-articulated procedure for updating the guideline.
Clarity of presentation	15	Specific and unambiguous recommendations.
	16	Clear presentation of the available alternative management for the health issue.
	17	Key recommendations well articulated and easily identifiable.
Applicability	18	Clear description of guideline implementation barriers and facilitators.
	19	Guideline provides tools/advice on ways to implement the recommendation into practice.
	20	Resource implication for the recommendation is considered.
	21	Monitoring/evaluation/ auditing criteria clearly presented

Editorial independence	22	Funding body views does no influence the guideline content
	23	Competing interests of the team members addressed and recorded.

Note. From "The AGREE II Instrument," by AGREE Next Steps Consortium, 2017, Article e023436 (http://www.agreetrust.org).

Findings

Domain 1: Scope and Purpose

The purpose and scope of developing the clinical practice guidelines were assessed based on Domain 1 within the AGREE II instrument. The experts offered a summative score of 90% for the domain, implying a consensus that the defined objectives of the practice guidelines were achieved. One of the panelists indicated that it is critical to expand one of the age groups in the target population to incorporate children since they also have COPD complications due to asthma and chronic lung infections.

Domain 2: Stakeholder Involvement

The domain scores for each of the guidelines was assessed and averaged by the four reviewers on the multidisciplinary team. The summative score was 100%. The team focused on two main domains including rigor development and overall quality guideline.

Domain 3: Rigor of Development

This domain had eight items out of 23 AGREE II tool items. The summative score was at 88%. Methods used for searching evidence were adequate in almost all guidelines. Moreover, literature on group music therapy was searched in a wide variety of databases, using specific timeline and search. The description for selection criteria was above

average for most of the evidence-based guidelines, with most mentioning specific eligibility criteria including study design and health outcomes. The team completed a formal grading system and appraisal of the developed literature, with the aim of achieving a high AGREE score on the rigor domain, by ensuring that strengths and limitations for each graded evidence-based practice literature was clearly defined. The grading system also ensured that the studies indicated consistent results across their studies. The method for formulating recommendations was based on expert consensus. The guidelines that outlined health benefits, risks, and side effects were adequately described in the evidence-based practice. However, one of the appraisers felt that the explicit discussion of complications lacked in most of the articles.

Domain 4: Clarity of Presentation

The summative score for clarity of recommendation was 86%. The guidelines linked the recommendations to evidence using summary box to grade each with the level of evidence for each individual. The guidelines clearly demonstrated congruency between the evidence and the guidelines recommendations. The guidelines had external review, with detailed explanations for the method, outcomes, and purpose. The reviewers observed that alternative approaches lacked clarity and had poor presentation.

Domain 5: Applicability and Editorial Independence

No deficiencies were reported in applicability and editorial independence.

Table 2

AGREE II Instrument Domain Scores per Appraiser

Guideline domain	Appraiser 1 %	Appraiser 2 %	Appraiser 3 %	Appraiser 4 %	*M*
Scope and purpose %	91	90	89	90	90
Stakeholder involvement	100	100	100	100	100
Rigor development	89	87	86	90	88
Presentation clarity	84	88	85	87	86
Applicability	100	100	100	100	100
Editorial independence	99	98	99	98	98.5
Average overall score out of 7	6.6	6.4	6.1	6.3	6.35
Would you recommend?	Yes	Yes	Yes, with modifications	Yes	

Overall Guideline Assessment

The mean rating of the overall quality of this guideline was 6.35. The scope and purpose had an average score of 6.7. Presentation clarity reported the lowest average score, probably because it is a new evidence-based practice, so most of the inter-professional team had little expertise about it. Rigor is the level in which research/study analysis is carried out meticulously to recognize the level of the finding's quality, trustworthiness, and value. Rigor development scored relatively low, as the inter-professional stakeholders aimed at ensuring that the evidence-based practice will be useful and effective when delivering care of dementia patients. Three out of four appraisers recommended the guideline for use. One reviewer recommended it for use with modifications.

Implications

This project provides readers and medical practitioners an understanding of the benefits of a noninvasive and cost-efficient intervention using music as an intervention in alleviating agitation in elderly patients suffering from dementia. Such awareness challenges other medical practitioners to look for other effective, natural yet safe ways of managing agitation in patients suffering from dementia. These efforts could help improve the quality of life of those suffering from this disease. It also encourages the need for other students to conduct more research and trials that would explore other facets of using music therapy in treating mental and behavioral disorders across all age groups.

Potential Implications for Social Change

Alzheimer's disease International raised in 2013 that the 44.4 million people living with dementia worldwide is estimated to increase to 75.6 million by 2030 and 135.5 million in 2050. The National Institute of Health (NIH) stated in 2012 that anxiety and agitation are usually a contributing factor to family caregiver burnout that results in placement of dementia afflicted individuals in residential settings. Consequently, there are challenges in the facilities in managing the maladaptive behaviors. Music therapy as a non -pharmacological intervention was found to beneficial in enhancing the quality of life of the residential dementia patients with anxiety in agitation as noted in the results of the extensive literature review in this project. Thus, implementation of music therapy in dementia units and other residential facilities can have a positive impact in decreasing anxiety and agitation in dementia residents. Stakeholders, administrators, and nursing staff could propel the implementation of music intervention to effect social change and

ultimately as a standard of practice in dementia care using the guideline supported by evidence generated in this project.

Strength and Limitations of the Project

The integration of the multidisciplinary team increased the guideline input. Only one site was used to appraise the developed guideline for use at this partner site, so the program guidelines cannot be generalised to all settings at this time.

Recommendation

The promising potential of group music therapy is encouraging. The guideline recommendations should be approved, adopted, and evaluated using formative and summative data to determine the effectiveness of this intervention. The ambitious goal for the multi-disciplinary team was to contribute to the evidence-based knowledge to give quality care to the affected individuals. Although the findings give strategic concepts, future studies should evaluate the nursing practices and attitudes towards group music therapy and the role of professional music therapists.

Section 5: Dissemination Plan

Dissemination of the clinical practice guideline for a group music therapy program will be essential in contributing to the available pool of reliable research articles. Studies have demonstrated that relaxing music is beneficial in managing agitation and anxiety in patients with dementia (Maseda et al., 2018). Therefore, it is important to share the findings of this project report with the wider nursing community to help establish collaborative interventions. Results for this study will be presented to the stakeholders through PowerPoint projection emphasizing the need to adopt the program as the primary model of management. Additionally, posters will be designed to create awareness for the nurses working at the elderly nursing care facility, illustrating the advantages of the music program in improving patient care. The project also be presented at the university during the presentation of the DNP final project; this will create a pattern to be followed by other students and aid in the future implementation of sustainable music therapy programs for patients with dementia. The venues will include seminar halls, community programs, and hospitals.

DNP Essentials

The DNP essentials were integrated in this project as follows:

1. The scientific underpinnings for practice are a solid foundation for DNP practice. Using Essential I, I integrated nursing science with psychological, biophysical, and analytical sciences to generate evidence-based concepts that

supports the implementation of group music therapy to decrease depressive symptoms in elderly nursing homes patients with dementia, thus enhancing their quality of life.

2. Technology is core to patient centered care, as it prepares DNP so that they can utilize information and technologies that support quality care. Using Essential IV, I utilized the information systems and patient centered technologies to design a clinical guidelines protocol for group music therapy that will be used in nursing home setting to enhance the quality of life for dementia patients.
3. Based on Essential III, the clinical scholarship and analytical methods for evidence-based practice were employed in this project to design unique approaches to address the complex issues facing nursing homes, that is, using evidence practice to design clinical guideline for group music therapy program to decrease agitation symptoms in the elderly with dementia.
4. In keeping with Essential II, I used organizational supports and systems for leadership for quality improvement to assimilate nursing science into practice by designing the clinical guidelines.
5. As per Essential VI, interprofessional collaboration was used when developing the group music therapy to enhance the quality of care on the patient's safety. Moreover, using this essential, I aim at mentoring and working collaboratively with the other advanced nurse practitioners

concerning group music therapy and its efficiency in reducing agitation symptoms in the elderly.

Analysis of Self

While developing the group music therapy program, I developed additional skills essential for managing patients with dementia. Thus, I acquired knowledge of the ways of developing an efficient, cost-effective program and the methods of its implementation, which contributes to improved quality of care in geriatric patients with dementia. The project was vital in increasing my proficiency as a health care professional, provided me with knowledge on quality improvement, and boosted critical thinking skills necessary in making patient care policies. As an academician, I have developed the skills to conduct a relevant nonbiased research project by applying the appropriate literature and research methods. In addition, the responses from the nursing staff encouraged sharing of the results of the group music therapy program with a larger audience, such as the patients with depression.

This project has also helped me identify the gaps in research on dementia and helped to redefine the role of professionalism in effective patient care. The stakeholders gave positive feedback on the project encouraging my future professional venture into the field of research. This project has enlightened the need for further research studies and nurse training on nonpharmacological interventions for patients with dementia. Furthermore, I developed project management skills by appreciating the importance of strategic planning and the timely achievement of set objectives. Thus, the DNP project is

important in preparing scholars to continue to evaluate the health care approaches to improving quality of life.

Summary

Dementia is a degenerative cognitive disorder characterized by a change in personality and personality, anger, and anxiety (Cho, 2018). The project aimed at developing a group music therapy program for the nonpharmacological care of these patients. The application of nonpharmacological approaches to the care of patients with dementia has become an essential part of the active management of this patient population (Quail et al., 2020). This modality of patient intervention and management provides an all-inclusive line of care. The single most important way to bridge the gaps identified in nonpharmacological intervention among patients with dementia is the education of nurses and regular evaluation of their knowledge to ensure they are at par (Weise et al., 2018). Indeed, with the adoption of this program as the primary intervention strategy for patients with dementia, there may be a massive decrease in the chronic use of medications, hence a reduction in the side effects associated with the use of these medications.

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Appendix: Patient Outcomes Evaluation Tool

	STUDY PERIOD							
	Enrol-ment	Alloca-tion	Post-allocation					Close-out
TIMEPOINT	*-1d*	0	*1d*	*3m*	*6m*	*12m*	...	
ENROLMENT:								
Unit, residents: Eligibility screen	X							
Residents, staff: informed consent (or assent)	X							
Unit: allocation		X						
INTERVENTIONS:								
Group music therapy			←	—	→			
Recreational choir singing			←	—	→			
Standard care			←	—	—	—	→	
ASSESSMENTS:								
Unit baseline: Geographical area Size and costs (CSSRI part 3)	X							
Residents baseline: sociodemographic information (CSSRI part 1); MMSE; dementia diagnosis (ICD-10 code)	X							
Staff baseline: Age, sex	X							
Unit outcomes: Sick leave days			---	---	---	---	---	---------
Residents outcomes: MADRS; CDR; NPI; EQ-5D; QOL-AD; medication and service use (CSSRI part 2)	X			X	X	X	(X)	
Residents outcomes: Adverse events; death			←	—	—	—	—	→
Staff outcomes: PCTB; sick leave days	X			X	X	X	(X)	X

Note. From "Music Interventions for Dementia and Depression in Elderly Care (MIDDEL): Protocol and Statistical Analysis Plan for a Multinational Cluster-Randomised Trial," by C. Gold, J. Eickholt, J. Assmus, B. Stige, J. Wake, F. Baker, J. Tamplin, I. Clark, Y.-E. C. Lee, S. Lindahl Jacobsen, H. M. Ochsner Ridder, G. Kreutz, D. Muthesius, T. Wosch, E. Ceccato, A. Raglio, M. Ruggeri, A. Vink, S. Zuidema, … M.

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