IMPROVING OCCUPATIONAL THERAPY STUDENT UTILIZATION THROUGH

A COMMUNITY ENGAGEMENT PROGRAM FOR

INDIVIDUALS WITH DEMENTIA

By

Andrew Stevenson

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Andrew Stevenson

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Donnamarie Krause, Ph.D. *Graduate Coordinator*

Jefferson Kinney, Ph.D. *Graduate Program Chair*

Alyssa Crittenden, Ph.D. Vice Provost for Graduate Education & Dean of the Graduate College

Abstract

The contents of this doctoral project include an introduction to some of the difficulties people with dementia face in regard to engaging in the community, and how that may impact their health. It goes on to support how occupational therapists (OTs) have the skills to provide treatment addressing this issue but have faced difficulty entering settings such as memory care. A literature review demonstrates some of the positive benefits that can result from providing people with dementia opportunities for community engagement and reveals some of the difficulties associated with providing quality dementia care. This helps to explain the purpose of this project and introduces the research question, would a community-based, engagement focused program improve occupational therapy (OT) student utilization in a dementia/memory care setting? An explanation of the methodology for developing such a program is provided, with input provided regarding anticipated outcomes, limitations, and ethical considerations. The paper finishes with a conclusion overviewing the purpose and impact of this project.

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Introduction

Participation in occupations that take place within and outside the community is vital to promoting health and wellness across all populations (American Occupational Therapy Association [AOTA], n.d.). The community hosts a multitude of occupations to be engaged in, spanning across many different types of occupations which may include instrumental activities of daily living (IADLs), health management, education, work, play, leisure, and social participation (AOTA, 2020-b). Some populations are at a higher risk of being unable to engage in occupations that take place outside the home and out in their communities due to the deficits they have acquired, such as those who have dementia (Chaudhury et al., 2021; Thalén et al., 2022). This can lead to occupational deprivation that is detrimental to one's health.

With the extensive knowledge that OTs possess on the importance of engaging in a variety of meaningful occupations, they are well equipped to use their skills to help facilitate participation in the community for those with dementia. OTs possess a wide range of skills to help navigate the mental and physical limitations an individual may experience from their diagnosis. This capstone project aims to highlight the necessity of implementing measures that support people with dementia to be able to participate in community-based occupations by the means of OT student utilization. This aligns with the focus of the American Occupational Therapy Foundation's (AOTF) research agenda, which includes goals to conduct more research on interventions that will prevent further debilitation of those with disabling conditions through engagement in community activities (AOTF, 2018). One way to do this is advocating the need for OTs to enter workplaces providing care to people with dementia, as there is a lack of formal OT positions in settings such as memory care. Many health care providers also lack sufficient knowledge and skills to provide optimal care to this population, indicating the need for more

support (Martin et al., 2020; Rassmussen et al., 2023). Through the development of a resource that can be utilized by OTs seeking to gain experience in this setting, it is hoped that the OT workforce will be more prepared and inclined to seek out opportunities to provide care for people with dementia.

Statement of the Problem

The current problem is that there is a lack of OTs in memory care which leads to OTs having limited experiential learning opportunities in this field and creates a concern for decreased community engagement for those with dementia. This can also make it difficult for other healthcare providers and members of the community to recognize the benefits OTs can provide. Even within the profession of OT, student opportunities to gain experience and immerse themselves into these settings can become impacted and hinder the ability of this discipline to expand its presence without adequate recognition.

Early stages of dementia can present with deficits in cognition related to memory, creating a concern for individuals in this stage in being able to safely engage in complex IADLs, such as driving and going out into the community (Dirette & Gutman, pp. 946, 2021). Many individuals who suffer from dementia begin facing difficulties participating in previously engaged occupations outside of the home and eventually completely abandon these occupations, which can negatively impact quality of life (QOL) (Chaudhury et al., 2021; Thalén et al., 2022). Clients will then continue to have limited opportunities for community engagement without the skilled services OTs can provide. OTs can play a valuable role in addressing low levels of engagement within settings providing care for this population (Morgan-Brown et al., 2019). Increased OT presence in memory care could be the solution to addressing this gap, because OTs can provide effective interventions to engage those with dementia in creative and resourceful ways (Ke, 2018). Programming that incorporates intergenerational interaction with those with dementia has been shown to be beneficial in promoting engagement, highlighting the potential for OT students to make a positive impact in memory care settings (Angelou et al., 2023).

The difficulties that those with dementia experience coupled with the knowledge and

skills that OTs possess to work with this population establishes a need for OTs presence to expand into settings such as memory care. The development of a community-based engagement focused program to serve as an educational tool and blueprint for OTs to utilize within memory care may be beneficial to increasing the presence of OT in this setting. This program could help to attain more recognition of the role of OT in memory care and influence directors of these facilities to consider the possibility of making partnerships with educational institutions to allow for placements of students for fieldwork. According to Lau & Raveneck (2019) role emerging fieldwork placements can aid in expanding OTs presence into new areas of practice and increase the range of clients we serve. They were also able to support the idea that role emerging fieldwork placements can influence students to enter these settings in the future, promoting sustainability and growth of OT. OT has a lot to offer for the dementia population, providing unique insight into missing needs that impact QOL such as community engagement and guiding clients through meaningful interventions to address this need. The development of a communitybased engagement focused program intends to improve recognition of the role of OT in memory care, increase student opportunities to gain experience with this population, and influence the emergence of OTs working in memory care to meet the needs of this population and positively impact their QOL.

Definition of Terms

Community based services, include engagement in programs or interventions that help to prevent disability and promote health through participation in occupations in the community (AOTA, n.d.-a). This will also be referred to as community engagement throughout this paper.

Occupational Therapy, the use of occupations to promote health and well-being throughout the lifespan which enables participation in all areas of daily living (AOTA, n.d.-b).

Dementia, a range of neurological conditions that impact the brain and progressively worsens over time (Alzheimers.gov., n.d.-a). It significantly affects cognitive functioning which impacts one's ability to engage in daily life and activities.

Memory care, falls under the category of residential care and assisted living. It may be required for people with dementia who are no longer able to function safely within their home under available levels of supervision (Alzheimers.gov., n.d.-b).

Social participation, activities that involve social interaction and support social interdependence (AOTA, 2020-b). Activities may involve community participation, family participation, friendships, intimate partner relationships, and group participation.

Literature Review

A literature review was conducted to support the contents of this manuscript. Databases that were searched included Google Scholar, PubMed, and CINAHL. Search terms that were used related to the research question included dementia and community engagement, dementia programming, OT and dementia, and dementia education. Many themes arose that help to narrow the gap of this research question and support the need for a project addressing this need. The following subsections demonstrate the findings from research that are related to each theme that was identified.

Individuals With Dementia Abandon Previously Engaged Occupations Outside The Home

It is widely known that dementia causes people to experience significant difficulty completing tasks they used to with ease. Thalén et al. (2022) aimed to determine levels of participation outside of the home by assessing places visited and not visited by those with mild dementia. A cross-sectional design was used to gather data about participants out of home participation, utilizing interviews to assess levels of participation outside of the home previously and currently. Participants on average ceased participation in about five activities outside of the home, with sports facilities being the most commonly abandoned across all four countries that data was gathered from. Some other places that were shown to have different levels of abandonment based on the country data was collected from included the hospital, dentist's office, garden, and forest. Although participants still appeared to have high levels of engagement, still reporting participation in a majority of the activities they were assessed on, it was indicated that some previously engaged occupations had been abandoned. This demonstrates a decrease in this population's participation, which could be concerning for one's health and wellbeing if valued occupations are being abandoned. The study is unable to determine causality of abandonment in activities through its design but does a good job of shedding light onto a concern for the targeted population.

It is important to identify what types of activities people with dementia are likely to abandon. Chaudhury et al. (2021) conducted a similar study with older adults with and without dementia. The same assessment used in the previously mentioned study by Thalén et al. (2022) was used in this study to assess out of home participation and the likelihood of individuals abandoning certain activities over time. Findings demonstrated that all activities were likely to be abandoned by those with dementia over time. Both groups reported that they were most likely to abandon recreational and physical activities, with an even higher percentage being those with dementia. This study further adds to the understanding of what activities may be discontinued by those with dementia and can inform OTs where to target interventions to meet the needs of important areas of engagement that could be missing. It is important to note that although the assessment used has been found to be valid, things such as demographics and participant's cognitive level could have impacted results. The participants with dementia were seen to have more diversity related to where they lived, which could add to their perceived difficulty of engaging in activities outside the home depending on their proximity to certain locations. Some participants with dementia also appeared to have some difficulty giving answers during interviews, with better performance observed from those who came with their caregiver.

Low levels of engagement become a concern once a person has a dementia diagnosis. Morgan-Brown et al. (2019) bring to light an interesting perspective pertaining to the lack of engagement that has been experienced in dementia care settings, and that it is a right for people with dementia to be able to have adequate social and occupational participation when living in residential care settings. These settings should aim to provide optimal living conditions for their

residents by providing opportunities for meaningful engagement, and the limitation or deprivation of these experiences has been previously described as occupational injustice. An observational study was conducted to measure levels of engagement for those with dementia or other enduring mental health diagnoses in five different residential care settings using the Assessment Tool for Occupational and Social Engagement. After data collection it was found that residents spent 38% of their time engaged and 62% unengaged when spending time in their communal sitting rooms. This highlights the need to implement measures in order to provide sufficient levels of engagement for people with dementia in these settings. Without the active intervention of care providers, this population may lack the capacity to meet their social and occupational needs independently. This can also be attributed to providing adequate opportunities for community engagement, because if residents are experiencing low levels of engagement within their residential care facility, then they are likely not being engaged in their community. It is important to note that the data gained from this study was obtained from observations that took place within only one area of the residential care facilities, and outcomes could differ depending on the environmental context a resident is placed in. Nonetheless, care providers working with dementia must seek to support the rights of their residents to have occupational and social interactions that are vital to their well-being.

There is an obvious trend of decreased occupational participation, especially outside the home, when evaluating the studies in this section. Both Chaudhury et al. (2021) and Thalén et al. (2022) were able to show a concerning number of occupations were no longer being completed by people with dementia, with trajectories showing even further abandonment of occupations over time. Morgan-Brown et al. (2019) adds to this discussion addressing low levels of engagement that were seen within a residential care setting. This solidifies the need for action to

be taken in order to maintain adequate levels of engagement for people with dementia. Many of the identified occupations that were abandoned can be valuable sources of health promoting activities. In order to support the right to being able to have sufficient levels of occupational and social engagement measures must be implemented to ensure their health and wellness is preserved.

Community-Based Interventions Provided Meaningful Social Interaction

The community hosts a multitude of different enriching activities that can promote positive physical and mental health. Noone and Jenkins (2018) were able to show that gardening was able to promote positive social interaction in a group of six participants with dementia. Semi-structured interviews and observational data were the main methods of data collection throughout a six week community gardening project. Findings revealed that participants felt that gardening was a way to develop new social bonds and discover common interests to connect with others outside of a diagnosis. Other valuable benefits that were seen included outdoor engagement, articulation of identity, and expression of agency. Limitations to this study were the low number of participants and short period of time the study was conducted over. A more robust experimental study design with more participants to place into multiple groups, and more time to test results would be beneficial to showing the positive effects of gardening for those with dementia.

Social participation is a common element when engaging in the community. Smith et al. (2022) conducted a mixed methods study demonstrating the positive effects community engagement has on social participation. Eighteen participants with dementia visited a music making cafe over 10 weeks to be observed and give feedback through interviews and self-report questionnaires. Findings showed that participants benefited from this experience by building a

sense of camaraderie amongst those involved, and that the process of making music together as a group was meaningful. This highlights the value that music can have in facilitating social connections in those with dementia. Generalizability of these findings to others outside of the sample in this study must be done so with caution due to a lack of heterogeneity and nonextensive sampling methods used to recruit participants.

Large scale events that are catered to the dementia population can lead to profound outcomes. Phinney et al. (2023) discuss the success of a cross border community project that brought together researchers, people with dementia, and community partners to promote social participation and enhance the well-being of this population. This event's main focus was to foster citizen engagement, creative expression, and social entrepreneurship. It took place at the border of Washington and British Columbia, bringing together over 200 people to create banners, walk together, and share gifts. Art was put on display that was created by individuals with dementia, and the event was set up so that people could sit and eat together while listening to music and poetry readings. Lots of positive feedback was received, demonstrated by participants expressing that they felt a sense of belonging and hope for the future. The overwhelming success of this event shows the importance of community engagement for people with dementia and supports their need for social participation. People with dementia face many stigmas that prevent them from seeking out or even being provided opportunities for this kind of interaction. This event should serve as an example for community partners that it is possible to have successful community events for people with dementia, and that it provides them with many benefits to their well-being.

Dementia friendly initiatives (DFIs) focused on community engagement can be an effective way to promote engagement that enhances well-being for people with dementia

(Thijssen et al., 2022). The researchers carried out a rapid realist review to explain outcomes of community DFIs for people with dementia and their caregivers. A main theme that emerged from the studies that were included in this review was that it is important to have caring, activating, and stimulating communities. Communities that involved these factors led to positive outcomes such as increased social participation, enjoyment, and support for people with dementia. These findings can be beneficial in supporting the growth of dementia friendly communities, which are valuable in providing accessible opportunities for people with dementia to engage in their communities safely and with reduced stress. It would be helpful to see future research examining the impact of a DFI on the establishment of an effective dementia friendly community to further support the development of these communities.

There are many options of community-based activities for people with dementia to engage in based off of the findings from this section. One of the most valued benefits of community engagement according to participants with dementia was the opportunity for social interaction (Noone & Jenkins 2018; Phinney et al., 2023; Smith et al., 2022; Thijssen et al., 2022). All of the included studies demonstrated the implementation of projects that were catered towards people with dementia. This shows the amount of effort and thought that must be put into coordinating successful events for people with dementia to have positive experiences. More emphasis should be placed on creating DFIs that support the creation and implementation of sustainable changes at a societal level in order to improve accessibility to community spaces (Thijssen et al., 2022).

Lack of Knowledge and Skills to Provide Optimal Dementia Care

Action has commenced in order to address the need for knowledgeable and competent healthcare professionals working with the dementia population. A scoping review was completed

to provide an overview of current educational models that show promise in helping to prepare the future healthcare workforce to meet this need (Williams & Daley, 2021). Twenty seven studies were included in this review that focused on dementia knowledge and attitudes amongst healthcare students. Five educational models were identified which included activity centered programs for people with dementia, interprofessional education, experiential learning, immersive conference style programs, and dementia simulation. Experiential learning and activity centered programs were found to be the most impactful in increasing confidence and attitudes towards working with dementia. These findings are important in highlighting the benefits of dementia education and programs on preparing students to be knowledgeable and accepting of the possibility to work with people who have dementia. Follow-ups of such education that has been carried out must be done to evaluate the long-term impact of this education being delivered early on in a student's academic journey to ensure it can translate into developing competent healthcare workers that can provide quality care to individuals with dementia.

Although many efforts have been made to improve dementia education, there is still more work to be done. Martin et al. (2020) conducted a scoping review in order to narrow the gaps in dementia care research and help establish priorities of the direction future research should head. Currently there is a lack of appropriate service provision to provide client centered care towards this population's needs, and it is estimated that the number of people living with dementia will only grow in the next 30 years. Some of the specific gaps identified from this review were non centered care pathways, limited knowledge and skills, poor communication, the culture of dementia care, and ineffective policies. Ways that the literature suggests improving dementia care include prioritizing client centered care, developing the healthcare workforce to be able to work with this population, and incorporating integrated care pathways. OTs may be a good

candidate to become an advocate and liaison to addressing many of these areas due to their client centered approach. Limitations to this review should be addressed in future research to further support the need to remove these gaps in dementia care, such as the fact that a small number of only eight studies were used for this review, and only qualitative studies were included.

Proper knowledge and skills to provide care for those with dementia, even amongst professional care staff, has been found to be lacking (Rasmussen et al., 2023). This impacts the quality of care provided to this population, creating a need for measures to be implemented in order to provide optimal care. The researchers conducted a systematic review in order to evaluate the effectiveness of dementia education catered towards care staff and uncover practical recommendations that can be utilized to improve knowledge of this topic. Seventeen studies of low to medium quality were included in this review, revealing that dementia education can improve knowledge, self-efficacy to work with this population, and attitudes towards people with dementia. Care staff were seen to have improved communication and felt more well equipped to manage behavioral symptoms of their clients. Forms of education that were found to be helpful included active learning methods, didactic teaching combined with practical experience, and opportunities to receive feedback. This study highlights the challenges that can be faced in dementia care in regard to receiving proper education in order to be well equipped to provide care to this population. It supports the need for proper education to be implemented in order to establish a competent workforce that is prepared to handle the challenges of working in dementia care. Future studies should seek to carry out high level studies that can confidently identify best practices for delivering education on dementia.

Many people who work in healthcare lack the knowledge and skills to provide optimal dementia care (Martin et al., 2020; Rasmussen et al., 2023). This is concerning considering the

growing prevalence of dementia worldwide. There is some evidence though that there are effective ways to help increase knowledge and competency when working with dementia, such as incorporating active and experiential learning opportunities (Rasmussen et al., 2023; Williams & Daley, 2021). It is promising to see the efforts of implementing these models early on in one's professional journey as evidenced by Williams and Daley (2021), but it will be important to see if there are any positive long-term impacts to be seen from addressing dementia education.

Dementia Programming

Effective programming can be a way to meet the needs of the dementia population and prepare the workforce to become competent in dementia care. Döpp et al. (2013) conducted a mixed methods study to evaluate the implementation of an OT program for those with dementia. Data was collected through the use of questionnaires, phone interviews, and focus groups. At baseline it was shown that 75% of the OTs implementing this program did not feel competent in using the program. After completion of focus groups, it was found that managerial support was not always adequate, causing difficulty in implementing such a program. Although OTs were believed to be a necessary component to implementing this program, their role was stated to be unclear by those in management. All professionals involved were able to agree that interprofessional collaboration was a key facilitator to implementation. Nonetheless collaboration was not always optimal, indicating the need for OTs role to be solidified and action be taken to support collaboration amongst professionals.

Programming that incorporates goals to improve the wellbeing of people with dementia is an effective way to increase engagement. Angelou et al. (2023) highlight the concern that individuals with dementia living in residential aged care facilities are at risk for decreased access to, and opportunities to engage in meaningful activities. This can lead to social isolation and

disengagement that is detrimental to this population's health. Intergenerational programs have been developed to combat this issue, as they can be beneficial to providing social networks for older adults to spend time with individuals such as university students. These programs can provide social connections, opportunities for engagement, moments to share knowledge and experience, and enhancement to an older person's self-worth and belonging. A qualitative descriptive pilot study was carried out to explore the perspectives of stakeholders such as staff members, relatives, and volunteers on a live-in intergenerational program (LIP) being implemented at a residential aged care facility. Two major themes that emerged from interviews that were conducted with the various stakeholders were having a community of care, and a collective based on belonging and shared doing. Live-in students supported sustainability of the program by providing support and opportunities for engagement with residents when staff was busy. A strong collective was formed through the interactions of the live-in students with residents, families, and staff that influenced a sense of belonging amongst all participants through shared doing. These findings suggest that programs such as LIPs have potential for providing beneficial engagement for those with dementia, and opportunities for students to gain beneficial experience working with this population. Future research should aim to determine the long-term impacts of implementing a LIP and the feasibility of sustaining or expanding such a program.

It is evident that a lack of education and skills to work with a population can be detrimental to effective service delivery. Döpp et al. (2013) experienced many difficulties when implementing a dementia focused program due to a lack of skills to feel competent working with this population, while Angelou et al. (2023) had a seemingly positive experience with the program they carried out. A lack of education and interprofessional collaboration appeared to be

a barrier according to Döpp et al. (2013), which is a common trend amongst the profession of OT. It is possible that specific types of dementia programming may be more effective than others, such as the LIP program carried out by Angelou et al. (2023). These studies show the importance of having the role of OT recognized in dementia care in order for treatment to be effective, while also showing a successful model of programming.

Facilitators to Effective Dementia Programming

While there are many difficulties to implementing effective programming, certain measures can be carried out to improve outcomes. Lanzoni et al. (2023) aimed to identify barriers and facilitators to implementing the program discussed by Döpp et al. (2013). This was done through a quantitative cross-sectional survey given to 90 OTs who were trained in the use of the program. Barriers that were brought to light included lack of knowledge of OTs and the program, and limited funds to support OTs implementing this program. Facilitators included the presence of an interprofessional team that understood the scientific evidence backing up the use of this program. This indicates the need for more resources to be put into spreading awareness and education on this programming, so that it may become more widely accepted and implemented.

All members of a care team must be well informed in order to support effective programming. Kellet et al. (2023) evaluated the acceptability and perceived benefits of implementing a community-based dementia program through a qualitative hybrid design, which addressed care managers and interventionists perspectives on effectiveness and delivery processes of the program. Contributions to effective implementation and positive response of this program included understanding the aims and value of practices incorporated into the program, training to broaden personnel involvement, collective action by team members to deliver the

program, and sharing perspectives on benefits of the program. This shows how important it is for there to be a shared understanding amongst all stakeholders involved in delivering evidencebased interventions to those with dementia, in order for optimized service delivery to be ensured during programming. Limitations of this study include the high turnover of staff throughout the time of three years that this study was carried out. This might have swayed the perceptions that were collected, due to missing data from more seasoned employees who might have left, and including data from new hires that might have a different perspective from their limited exposure.

Efficient communication and collaboration regarding programming needs to be implemented in order to support the success of programming for people with dementia. Lanzoni et al. (2023) was able to identify some of the facilitators to successful programming based off of evaluating the study by Döpp et al. (2013). Kellet et al. (2023) supports the finding from Lanzoni et al. (2023), that having a shared understanding of the benefits of programming for dementia increased the effectiveness. This addresses the need for improved education strategies to be implemented in order to help healthcare providers understand what they should be seeking to achieve with programming. By doing so optimal service delivery can be supported and interprofessional collaboration can thrive.

Statement of Purpose

The purpose of this project is to create a community engagement program for dementia that can improve OT student utilization. A secondary purpose will be to increase knowledge of what OTs role can be in dementia/memory care. This is relevant to OT in that it promotes occupational engagement in an at-risk population, advances the profession of OT by supporting the need of its presence in an emerging area of practice, and will be able to support health and well-being for this population through community engagement in occupations. The research question that was constructed to guide addressing this topic is, would a community based, engagement focused program improve OT student utilization in a dementia/memory care setting?

The solution that is being proposed is to create a community engagement program to serve as an educational tool, show the benefits of OT services for this population, and guide students or even practitioners to deliver effective evidence-based interventions. The hypothesis for the effects of this program is, if a community engagement program for dementia/memory care exists, then OT student utilization will increase. It is also hypothesized that increasing OT student utilization will lead to more student opportunities, creating more OTs that are experienced with dementia/memory care. This could influence a shift in dementia care that positively impacts this population's QOL through increased presence of OT in memory care.

The objectives that have been set to guide progress throughout this project and experience are to facilitate community-based services for the dementia population to identify potential benefits from an occupational perspective. The student seeks to develop knowledge and skills to work with this population and guide them through community outings and create a community engagement program based on clinical experience gained and evidence from the literature. Some of the components of this program will include interventions, education, and

strategies to optimize dementia care related to community engagement. Outcomes that are envisioned from this project include having a guide for memory care and OTs to utilize, increased support for OTs to practice in these settings through increased knowledge of our value, and increased student utilization leading to more experienced clinicians who can better serve this population.

Theoretical Framework

A theoretical framework that will be used to guide some of the reasoning behind this project is the Rehabilitative Frame of Reference. This is used when remediation is unlikely, such as when working with chronic and progressive disorders, like dementia (Schell et al., 2014). This framework instead focuses on facilitating individuals to engage in fulfilling daily activities and social roles and using one's remaining abilities to attain the highest level of functioning possible. The functional model of cognitive rehabilitation will also be used to support the creation of programming targeting community engagement to maintain positive well-being. The functional model of cognitive rehabilitation is a model that facilitates engagement in meaningful occupations to improve cognitive performance (Lee et al., 2001). This could be attributed to engaging clients with dementia in the community to facilitate a dynamic interaction between the client and environment. While it is not necessarily a goal to improve cognitive functioning in the targeted population for this project, this model can still be utilized from a perspective to preserve cognitive skills in order to be successful when participating in the community.

Methodology

A site that was determined would support a beneficial experience to help gain the necessary knowledge and skills to complete this project is Silverado Red Rock Memory Care Community (SRRMCC). This site has implemented innovative programming to improve QOL for those with a diagnosis of dementia. They place a large emphasis on community engagement and embody a student friendly environment to support learning and development of knowledge and skills. OT students from the University of Nevada, Las Vegas, and Touro University have completed level I and II fieldwork rotations here to develop their skills to work with the dementia population.

The site mentor was Dr. Karmella Bognot, the Nexus program director. Dr. Bognot used to be a professor at the University of Nevada, Las Vegas teaching mental health for adults courses for the entry level occupational therapy doctorate program, and has kept close ties with this institution. Dr. Bognot's duties as the Nexus program director involves planning and facilitating community engagement opportunities for individuals residing at SRRMCC who are part of the Nexus program with mild to moderate dementia. Outings typically range from having four to eight residents, with assistance provided by an assistant program facilitator and students who are available to provide their support.

Sampling

A convenience sampling for recruitment allowed for access to a group of individuals with dementia who would be able to undergo a community engagement program at their current status. Residents receiving care at SRRMCC who a part of the Nexus program were selected as participants to observe the benefits of facilitating a community engagement program. Individuals in the Nexus program present with mild to moderate dementia, have obtained a score of at least

20 on a Mini Mental State Examination (MMSE), do not present with behaviors that are disruptive to social groups, are not dependent to complete functional mobility, do not experience urinary incontinence most of time, and are able to control bowel movements. Participants were able to have direct interaction with the student executing this project in order to allow for the development of competency to work with people who have dementia. These participants already actively engage in community outings that are coordinated by the Nexus program director and were determined to have the highest level of functioning at SRRMCC to support successful participation in a community engagement program.

Design

The methods that were implemented to ensure a productive experience was achieved were to participate in community outings with residents, where the student learned how to interact with patients through direct engagement and co-leading of community outings. The student was able to participate in co-leading activities with the Nexus program director, allowing for the development of hands-on experience to work with the targeted population. This was a great opportunity to observe community based services and determine the positive benefits of those interventions. Preliminary data was collected from participants to identify what occupations in the community they valued the most, supporting the development of meaningful programming. The OT student utilized this data to provide recommendations for community engagements and help coordinate planning to ensure a successful experience was achieved. Outings were completed at least once per week, with some weeks providing opportunity for multiple outings depending on how busy residents were with plans and events facilitated by SRRMCC. With the resources and time Silverado had at its disposal it was determined that larger group outings could take place at least once per week, and smaller ones were feasible to execute

one to two times per week. Once an appropriate and feasible number of outings to be done was determined, planning for what specific community outings were to be included was able to take place. Program development was able to commence with plans to incorporate descriptive statistic methods to record activities that took place throughout the program and assess participants perspectives towards an OT student being a part of it.

Program Development

Activities were labeled and described to identify what type of occupations were engaged on different outings. These activities were further categorized into specific types of occupations under the main category of occupation, depending on the purpose or skills that were required to engage in the activity. Direct observation throughout these experiences allowed for the student to document detailed notes of the perceived benefits observed. After each outing was completed observations of benefits and important moments were documented to be used later when writing the program. There were also opportunities to repeat previously completed activities that were favored according to the participants, which supported the student's ability to accurately observe the benefits of specific activities and promote client centered programming.

Proper organization of written and digital notes was implemented in order to ensure accuracy of data collected. This content was evaluated and synthesized to begin writing the program that includes general recommendations for community engagement activities that an OT student can facilitate in memory care. It was important to ensure there was carryover of evidence from the literature to real life practice to support the contents of the program. Current literature on community engagement and activities or occupations completed related to dementia was continuously referenced to strengthen the validity of content included in the program. This

ensured that content and recommendations were supported by scientific evidence, giving merit to the observed benefits of the program.

By the tenth week there was cessation of newly planned community engagement activities to be included in the finished program. This was done to allow for ample time to complete the program, and not overwhelm the student with excessive content. At this point the program was nearly finished, having gone through most of the capstone experience and witnessing a multitude of community engagements with the residents of SRRMCC. This led to the creation of a community engagement program for individuals in the Nexus program at SRRMCC based on research and clinical experience gained. The full program can be referenced in Appendix A.

Data Collection

To evaluate the effectiveness of this experience and culmination of the project, utilization and perspectives regarding OT students supporting community engagement for dementia in memory care was assessed. This was done to ensure that the main outcome of the research question is being addressed, which is improving OT student utilization in memory care by the means of a community engagement program. Structured interviews were conducted with participants where a questionnaire was administered that addresses OT student utilization related to community engagements. The student created this questionnaire due to the lack of a standardized assessment available to answer the research question. The questionnaire was named the OT Student Utilization Questionnaire (OTSUQ).

Items that were included to obtain perspectives regarding OT student utilization addressed OT students being able to improve the experience of community engagements, incorporating a good variety of community engagement activities, usefulness in providing

assistance to navigate difficulties during community engagements, having positive interactions during community engagements, and perceptions of continued use of OT students at SRRMCC. These five items were scored from one to four on a Likert scale, one indicating a response of no, two indicating neutral, three indicating somewhat, and four indicating yes. This allowed for a maximum score of 20, and minimum score of five to be obtained depending on how a participant responded. Higher scores would indicate a positive perception towards OT student utilization, while lower scores would indicate a more negative perception. The full questionnaire can be referenced in Appendix B.

One on one interviews in a secluded room were conducted with participants to ensure data being collected was kept confidential. It also supported the student's intent to make sure participants understood questions with utmost clarity to improve accuracy of responses. Participants were given an overview of all the community activities completed throughout the program and asked to identify which one was their favorite. Explanations and pictures were provided to refresh participants' memory, as this is a population with significant deficits related to memory and recall of recent events in one's life (Arvanitakis et al., 2019). Process of elimination was conducted by naming off all of the community engagements a resident participated in, instructing them to choose one or the other as their favorite until all options had been reviewed. This data was collected to provide insight into future community engagement programming and gain an idea of what activities were most meaningful throughout this program.

The OTSUQ was administered with guidance from the student to ensure participants could understand and accurately respond to the questions being asked. Participants presented with different levels of cognition and visual acuity, creating the need to provide the same level of thoroughness to everyone when administering the OTSUQ. As previously stated, possible ratings

of questions ranged from one through four, with one word descriptions being associated with each rating. Simplifying the questionnaire was a priority when developing this assessment in order to mitigate any confusion throughout administration. The student instructed participants with intact visual acuity to read each item, providing additional clarification for all elements of the question.

Data Analysis

Results of the OTSUQ were assessed using Statistical Product and Service Solutions (SPSS) to determine if this program was able to produce positive outcomes from the participants perspective. Descriptive statistics were obtained demonstrating the results of overall scores from the OTSUQ amongst participants, along with results of how individual questions performed. Documentation of completed activities throughout the program was detailed to include the number of times an activity was completed and who participated in specific activities. This helped to identify activities that needed to be listed to participants during interviews when choosing their favorite community engagement, because all participants had a different experience depending on which community engagements they attended. It also helped with program development to be able to categorize engagements into categories of occupation and specific occupations. The data regarding types of occupations and specific occupations completed was further analyzed to determine the number of times they occurred throughout the program.

Ethical and Legal Considerations

Ethical decision making was guided by the AOTA Code of Ethics to ensure that everything was done with good intent and for the benefit of those the student interacted with (AOTA, 2020-a). Residents at SRRMCC who participated in the community engagement program were always invited to be a part of an outing, while respecting their autonomy to decline an invitation. While this created concerns for data collection and validity of final results, it was more important to make residents comfortable and to respect their decisions. Participants' names were excluded from results and the program that was created for the sake of anonymity and to protect their identities. Any data that was collected throughout the capstone project that had identifying information was used solely by the student and kept secure on a password protected computer. Pictures of residents were used in the program for figures to enhance content delivery without mention of names to preserve confidentiality. Residents and their families have signed consent forms given by SRRMCC giving permission to use photography for educational purposes, which applies to the use of the photographs used in the completed program.

Student orientation was completed at the start of the capstone experience. This allowed for the student to understand facility operations, emergency procedures, and SRRMCC's mission. Other components of orientation included training to better understand how to work with the population residing and receiving care at SRRMCC. This was beneficial to helping the student transition into this setting and work with the residents at the standard that SRRMCC expects. Guidelines that were established by the site ensured that safety and well-being of clients was always prioritized.

Results

Sampling

Participants that were selected to participate in the community engagement program were chosen through a convenience sampling method. These participants were already residing at SRRMCC, and part of a program that incorporates community engagement into their weekly routine, the Nexus program. Individuals within the Nexus program still presented with different levels of cognitive and physical functioning that impacted some participants' ability to participate in every single community engagement. With this being said, some residents in the Nexus program did not participate in a significant number of community engagements.

This led to the decision to only include Nexus residents who participated in at least three different types of occupations when going on community outings. After completing the community engagement program and assessing which Nexus residents experienced at least three different types of occupations when going on community outings, a sample size of eight was obtained. Table 1 includes demographic information pertaining to each participant to help the reader understand the sample better. Participant names are excluded to maintain confidentiality. All participants have a diagnosis of mild or moderate dementia and have scored at least a 20 on the MMSE. Other demographic information that was included is age, highest education level, and gender.

Table 1

Participants N=8	Age	Gender	Education	MMSE
А	84	Female	College	20
В	85	Male	College	28
С	77	Female	College	23
D	87	Female	College	28
Е	73	Male	College	22
F	85	Female	High school	24
G	75	Female	College	30
Н	64	Male	College	27

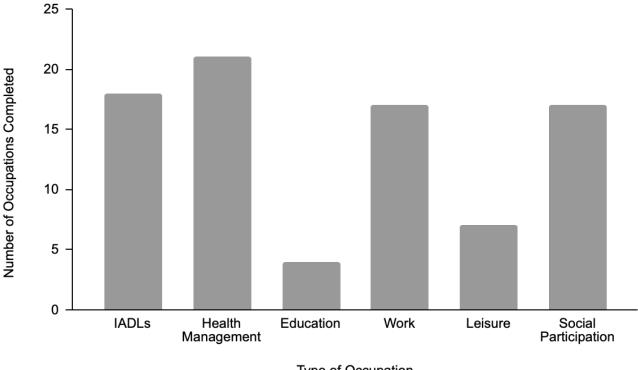
Participant Demographics

Program Development

Community engagements were able to be categorized into multiple types of occupation, spanning across IADLs, health management, education, work, leisure, and social participation. These activities were further categorized into specific occupations that were engaged under each category of occupation that was observed. Total numbers of activities completed under each category of occupation was documented throughout program development to keep record of which types of occupation were engaged the most and least. Eighteen activities fit under the category of IADLs, 21 for health management, four under education, 17 for work, seven for leisure, and 17 for social participation. Figure 1 gives a visual representation of how many occupations were completed under each category of occupation.

Figure 1

Number Occupations Completed Under Categories of Occupation



Type of Occupation

Data Collection

Additional information that was collected from participants was their preferred form of community engagement before commencement of programming, and their favored community outing completed at the end of the program. This information helped to incorporate participants'

preferred type of community engagement into programming and gave feedback about what type of community engagement was most meaningful after completion of the program. General preferences were obtained for the collection of preferred types of community engagement, and specific activities were obtained for favorite community engagement after completion of the program. Table 2 below demonstrates these results. Appendix A contains information from the program explaining what consisted of the favored community engagements.

Table 2

Participants N=8	Preferred community engagement before program	Favorite community engagement after program
А	Education	Intergenerational Interludes
В	Music	Intergenerational Interludes
С	Outdoors	Ice cream
D	Music	Ice cream
Е	Outdoors	Intergenerational Interludes
F	Lunch	Nevada reading week
G	Photography	Intergenerational Interludes
Н	Outdoors	Neon Museum

Favored Community Engagements

Data Analysis

Additionally, a questionnaire was administered to participants at the end of the program to assess their perception of student utilization. Results of the questionnaire were mostly positive, with full scores of 20 being obtained from six out of eight participants. The lowest obtained score was 10, and the second lowest score was 17. SPSS was used to obtain descriptive statistics on the results of this questionnaire. Table 3 demonstrates the findings from this which includes the mean, median, standard deviation (SD), and frequencies of all scores obtained. Table 4 shows the descriptive statistics of how individual questions scored.

Table 3

OT SUQ (N=8)	Mean	Median	SD
	18.36	20.00	3.54
Scores	Frequency	Percent %	
10	1	12.5	
17	1	12.5	
20	6	75	

Descriptive Statistic for Overall Scores from OTSUQ

Table 4

Descriptive St	atistics for	Individual	Questions	from	OTSUO
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Questions (N=8)	Minimum	Maximum	Mean	SD
Was the use of OT students beneficial to improving the experience of community engagements?	1	4	3.50	1.07
Was there an appropriate variety of different activities done on community outings?	1	4	3.50	1.07
Were OT students useful in helping to navigate difficulties when on community outings?	1	4	3.63	1.06
Were interactions with OT students positive?	3	4	3.88	0.35
Do you believe that SRRMCC should continue to utilize OT students for community engagements?	3	4	3.88	0.35

Note. Scores range from one to four. 1 = No; 2 = Neutral; 3 = Somewhat; 4 = Yes.

Discussion

In order to answer the research question, would a community-based engagement focused program improve OT student utilization in a dementia/memory care setting, a community engagement program was facilitated with individuals who have dementia. A wide variety of occupations are accessed through community engagement as demonstrated by the created program. This directly supported the AOTF's goal of conducting more research on interventions to prevent further debilitation of populations with disabling conditions through engagement in community services (AOTF, 2018). Many of the activities completed by participants throughout this program were able to be supported by research, with similar outcomes being observed by the student after cross referencing related studies. The future of OT providing quality and effective services to the dementia population appears bright after interpreting the results of this project.

Sampling

The participants of this project were strongly representative of the targeted population that was aimed to be served. Participants all have a diagnosis of mild to moderate dementia, which is what was primarily seen in studies investigating the benefits of interventions completed and related to community engagement. Individuals within the mild to moderate stages appeared to have the most potential to benefit from community engagement. They have retained enough physical and mental abilities to successfully participate in community engagement and experience the researched benefits. Those who are in the severe stage of dementia, classified as a major neurocognitive disorder, experience significant difficulties in learning, language, attention, executive function, and social cognition that interferes with independence in daily living (Duong et al., 2017). Facilitating community engagement with those who have severe dementia was anticipated to require much more support and robust planning in order to be successful, leading

to the decision to carry out this project with a group of people who have mild or moderate dementia. Future research should aim to investigate how community engagement can be effectively implemented into the lives of those in severe stages of dementia, so that they may too experience possible benefits of these interventions.

Program Development

The development of a community engagement program for people with dementia appeared to be a great success. Many positive moments were observed throughout the program that were able to be connected to research. The creation and facilitation of this program by an OT student demonstrated effective utilization of the student's time and skills in a memory care setting. A wide range of occupations were found to occur when implementing community-based services, spanning across IADLs, health management, leisure, education, work, and social participation. This highlights the complexity of community engagement, and the many important occupations that can take place when out in the community. Being able to provide these opportunities for a population that is at risk of abandoning occupations that take place outside of the home was a great accomplishment. This aligned with the theoretical framework of this project, the rehabilitative frame of reference, by maintaining participants' ability to be successful out in the community with their current abilities.

Although there were many different types of occupations included in this program, there was not an equal distribution of the amount that were completed for each category. Occupations for leisure and work were completed significantly less than categories such as social participation, volunteering, and health management. Future programming should aim to incorporate a much more balanced distribution to support occupational balance. Other health outcomes may also be able to be tested from refined and more structured methods being

implemented with this program. Being able to better understand the benefits of carrying out a community engagement program for people with dementia through research would further support the need of this being prioritized in memory care settings.

Data Collection

Many strategies were used to strengthen the process of data collection and obtain accurate results that reflected participants' attitudes towards student utilization. Structured one on one interviews, thorough explanations, and simplification of questions was carried out with the intent to enhance participants' understanding throughout this process. This was done to reduce inaccuracies and confusion due to anticipated difficulties related to obtaining data from a population with noticeable cognitive deficits. Despite measures being taken to mitigate these issues, some participants still appeared to have difficulty understanding the topics that were addressed. Some participants had difficulty maintaining attention during the assessment and would perseverate on previously addressed items making it difficult to focus on the next topic. One participant had poor vision making them unable to read the questions of the OTSUQ, having to rely more on memory and requiring multiple repeats of the questions. These factors might have contributed to answers being given that did not reflect how they truly felt.

Data Analysis

Nonetheless, results of data collection were mostly positive. The majority of participants gave full scores for the OTSUQ, demonstrating good utilization of OT students. Previously mentioned factors that could have impacted accuracy of their perceptions must be taken into consideration though. The use of a non-standardized assessment also creates concerns for internal validity of the findings. Inferential statistics were unable to be used on data collected without multiple times or groups being compared, impacting generalization to these findings

outside of the project's context and significantly reduced external validity. This assessment has the potential to be administered to other samples, such as staff who participated in facilitating community engagements with the student. This could provide more insight into answering the research question and allow for a comparison to be made and see if both groups would have similar results. Multiple collections of data using the same assessment could have shed more light onto the extent of test-retest reliability, which would improve the confidence of accurate results being obtained.

Limitations

The creation of this program that categorized community engagements into occupations could have benefited from a more comprehensive plan to incorporate an even distribution of types of occupation. This would enhance the quality of program development and further showcase the efforts of OT student utilization to create a program for the intended population. Time and facility operations were a barrier to reducing this issue, because planning around events of the facility led to difficulties executing everything the student aimed to include in the program. A lack of control in this nonexperimental project also led to some participants completing some activities more than others, or not experiencing one at all. This made it so that all participants had a different experience of the program depending on what community outings they were a part of, thus allowing for the possibility of different perspectives during data collection.

A concern that arose from the completion of this project revolves around the ability to replicate the program. Other memory care facilities may lack the resources to fully engage their residents in the community, such as having a bus or vehicle that is handicap accessible to transport residents. SRRMCC is supplied with adequate resources to do a variety of community activities, and other facilities without the same resources may have difficulties implementing everything that is recommended in the created program. The sample used in this project was representative of the population, but due to the choice to use a convenience sampling method, randomization was lacking. Collecting data of perspectives from a population with cognitive deficits related to memory also creates a concern for the validity of responses. Participants being able to remember all of their experiences throughout the program to come to an accurate conclusion led to a recall bias that could have skewed results.

The assessment administered to participants was created by the researcher and therefore, non-standardized. Internal and external validity was thus compromised without the use of standardized assessments to determine the perspectives regarding this program. It could have also led to a researcher bias of questions being created that could be more inclined to be answered a certain way. Conducting one on one interviews to guide participants through the assessment was necessary to ensure they could understand and complete the assessment, but allowed for interviewer bias to occur when providing examples that could sway participants' answers. Using descriptive statistics to analyze the results of the assessment did not lead to an outcome of statistically significant results. The use of a descriptive study design did not allow for generalization of the obtained outcomes from this program and could benefit from a more thorough experimental design that implements measures to allow for a comparison to be made through the use of inferential statistics (Ranganathan, 2019).

Conclusion

In conclusion, the need for this project was to promote OT student utilization, OTs presence in memory care, and provide community engagement for those with dementia. Its purpose was to support OT as a key player in dementia and memory care and improve the QOL for patients in these settings through administration of skilled services. While it is still less common for OTs to find work in these settings, it is hoped that this project will set an example of how OT students can provide their skills to benefit the lives of the dementia population. Utilization of OT students can be a great way to expose the profession to an emerging area of practice and influence a positive shift in attitudes towards seeking out these placements (Lau & Ravenek, 2019). The outcome of this project was the creation of a community engagement program that can be utilized by OT students gaining experience in memory care. Participants highly valued participation in this program and appeared to have positive attitudes towards the presence of OT students.

Recommendations

Providing community engagement opportunities for the dementia population should continue to be facilitated for people with dementia. This population faces significant difficulties engaging in occupations that take place outside of the home independently. Many different types of occupations can be accessed in the community and can lead to positive outcomes such as enhanced social participation. Utilization of OT students can support the success of community engagements being carried out with this population, using their unique perspectives and support to ensure the success of these experiences. There are limited settings that can allow for an OT student to observe or execute community-based services, so developing relationships with

facilities that can provide these services and are open to allowing students to enter their space is vital to advancing the profession.

Implications for Research

The use of community-based services should continue to be researched in order to further support the use of these interventions for people with dementia. Research exists that demonstrates the benefits of using community engagement for people with dementia but should continue to be conducted with high level studies to further improve support for the use of these interventions. Many activities that can take place in the community are not framed in this perspective but are supported by research to provide positive outcomes for the dementia population. More research needs to be done with these already effective interventions from a different perspective that incorporates community engagement. Limited research exists supporting the use of OT students in memory care and is imperative to be done in order to increase the emergence of this profession into memory care.

Implications for Practice

Individuals with mild to moderate dementia were shown to be able to successfully participate in community engagement activities and valued these experiences greatly. From an occupational perspective, a multitude of different occupations were able to be completed through a community engagement program. The use of a structured program such as this can be beneficial to guiding practitioners to incorporating an even distribution of occupations when facilitating community engagement. It also supported the use of OT students being able to provide adequate assistance to effectively implement these services. This kind of experiential learning can be one of the only ways to gain experience in an emerging area of practice that can highly benefit from the use of OT.

Future Implications for OT

With the goal of developing a community engagement program for an at-risk population, increasing student opportunities in an emerging area of practice, and improving service delivery for people with dementia through the use of OT, this profession can gain recognition and credibility to become a key player in memory care. AOTA's Centennial Vision aims to ensure that OT is a widely valued practice that is known for enabling people to improve their physical and mental health to support participation in activities that they find meaningful (AOTA, 2007). This project aligned with this vision by promoting the use of OT in a setting that does not traditionally provide community-based services from an occupational perspective. In order to showcase the value of this profession being able to meet the needs of people with dementia, all opportunities must be taken advantage of to increase the knowledge base of OTs unique contribution to this population. Big changes at a societal level must start somewhere, and the contributions of OT students being able to support community engagement in memory care could initiate the change to create improved standards in this area of practice. This will bring occupational justice to an at-risk population who faces difficulties engaging in complex activities that take place in the community.

Appendix A

Community Engagement for Nexus: An Occupational

Perspective

By: Andrew Stevenson, OTD/S

Introduction

This document highlights the importance of incorporating meaningful experiences of community engagement into the lives of those who reside at Silverado Red Rock Memory Care Community who are a part of the Nexus program. The goal of this document is to provide enlightenment on the importance of these experiences for those within the Nexus program, and that enriching engagements in the community are attainable. Occupational therapy (OT) students may utilize the information provided in this document to gain a better understanding of what community engagement looks like within memory care, and the benefits that it can provide for residents from an occupational perspective. The many different activities that were observed by the OT student will be displayed, labeling these activities into occupations that were addressed to create a community engagement program. Activities are categorized into types of occupations based on the Occupational Therapy Practice Framework: Domain and Process Fourth Edition (OTPF-4) (American Occupational Therapy Association [AOTA], 2020), and labeled into the specific types of occupations for which they best fit. A description of the activities will be provided explaining the perceived benefits with connections to literature that supports the use of these community-based interventions for people with dementia.

Instrumental Activities of Daily Living (IADLs)

IADLs include activities that support daily life within the home and community (AOTA, 2020). The ability to complete IADLs allows for independent living within the home and community. One's ability to independently complete IADLs is not necessary for functional living but can have a powerful impact on quality of life and self-esteem. Specific occupations that are listed under IADLs include child rearing, pet care, communication management, community mobility, home management, and shopping. The ability to complete these occupations becomes severely impacted in the presence of a dementia diagnosis, especially once a person moves into an assisted living facility. Being able to complete IADLs allows for a sense of fulfillment that can create a feeling of being an active participant in one's own life. IADLs can even be connected to community engagement, such as when residents were able to tag along with the OT student and assist with shopping and pet management.

Shopping

Being able to go out into the community and assist with shopping was a valuable moment for residents to challenge themselves cognitively and physically. Keeping track of a shopping list and navigating a grocery store to find all needed items can even be challenging for those without a cognitive impairment. Having an OT student be able to guide residents through this experience allowed for them to feel as if they are contributing to the needs of themselves and the Silverado community. Without the ability to travel independently, going shopping and visiting stores can easily become a thing of the past. Providing this experience for residents allows for an opportunity to regain a sense of familiarity with an occupation that used to be a normal part of life, and sparked moments of reflection on things that they used to go shopping for. Ensuring

safety for those with mobility concerns by providing close supervision when navigating the store allowed for residents to feel safe and stress free during these experiences.

Figure 1

OT Student and Resident Shopping at Grocery Store.

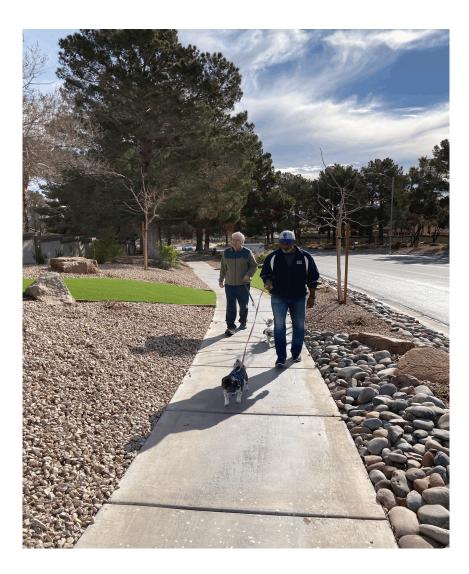


Care of Pets and Animals

Silverado residents who participated in care of pets and animals valued this time immensely, as it was a great opportunity to get out of their home and explore the community. They also benefited from contributing to help take care of the dogs who also share their home with the Silverado community. This allowed for residents to feel as if their efforts were appreciated and meaningful by lending a helping hand. Other dogs who belong to residents also live at the Silverado community, which led to moments for other residents to offer their help and take the dogs out for some fresh air. Research supports the benefits for the dementia population and participating in pet care, with findings showing that those who are involved in pet care were less lonely and had a higher likelihood of walking more (Opdebeeck et al., 2021). Being able to take residents out into the community to walk the dogs became an important routine that they looked forward to. With the assistance of an OT student to help navigate the community and ensure a proper route was established, residents were able to successfully assist with care of pets and animals while out in the community.

Figure 2

Residents Assisting with Walking Silverado's Dogs, Bob and Marley.



Health Management

Occupations that are listed under health management can be described as activities that help to develop, manage, or maintain health and wellness (AOTA, 2020). This can involve establishing routines, implementing self-management strategies into one's life, and making goals to improve or maintain health. Doing so ensures participation in other occupations in which good health is needed to complete. Specific occupations that fall under health management may include social and emotional health promotion and maintenance, symptom and condition management, medication management, physical activity, and nutrition management. Related to community engagement, physical activity was a great way to support Silverado resident's health and wellness in fulfilling ways.

Physical Activity

Physical activity can be described as completing a variety of exercises such as cardiovascular, strength training, and balance training to improve one's health (AOTA, 2020). This helps to maintain one's health from a rehabilitative point of view when working with dementia, and if possible, improve client factors related to physical health. Enabling people with dementia to participate in physical activity can also benefit their mental health as well. Physical activity has been specifically found to improve cognition, independent functioning, and psychological health for people with dementia (Nuzman et al., 2020). Within the dementia population, who are almost always older adults, physical limitations will likely be present. This is a natural part of aging but can be exponentiated by a dementia diagnosis. Silverado incorporates physical activity into the daily routine of all residents to help maintain their health, but with regard to the occupation of physical activity, more can be better.

Utilizing community engagement opportunities to incorporate physical activity into the lives of Silverado residents was found to be a great way to motivate residents to participate in this occupation. Participating in physical activities out in the community, such as bowling, was successful at making physical activity fun for residents. Residents were able to test their skills such as balance, coordination, and endurance in order to play a full 10 frames of bowling. Seeing the joy in residents' faces as they scored a strike was a testament to enjoyment they were experiencing while participating in physical activity out in the community. While no research was found to support the benefits of people with dementia playing official bowling, there was one study that investigated the benefits of a modified version of bowling catered to be more accessible for anyone with a disability. This study found that participants with dementia highly benefited from social aspects of this game, and allowed for a space to exist where people supported each other and treated one another as equals (Ovenden et al., 2016). The mental and physical stimulation of this game kept participants engaged and unbothered by their dementia diagnosis, demonstrating an inclusive physical activity that led to enjoyment for those with dementia.

Figure 3

A Resident Feeling Exhilarated After Scoring a Strike.



Golf was another sport that brought Silverado residents out into the community and challenged their physical abilities. Finding the right facility that would be accessible and dementia friendly allowed residents to experience playing golf for the first time in a long time. Top Golf was an appropriate facility to do this, as it is set up as a driving range with seating in all areas so that residents could sit and rest while waiting for their turn. It was wonderful to see residents get back into the groove of golf, which takes a large amount of balance and hand eye coordination to be successful. Individuals with dementia often abandon this activity due to social stigma of believing they are not capable of engaging in such a complex sport. Evidence suggests that under the right conditions, golf can be accessible and promote participation that improves social connectedness to enhance the wellbeing of those with dementia (Norval et al., 2021).

Figure 4

Resident Swinging Away at Top Golf.



As previously mentioned in IADLs for the occupation of care for pets and animals, residents participated in going on walks with the dogs of Silverado. This was a highly beneficial way to develop a routine of caring for pets while also getting some physical activity done. Some of the more physically abled residents took pride in knowing how far they were able to go, wondering if it would be possible to break their personal record on the next walk. Walking has been found to be a great form of physical activity for people with dementia. Participants in a study focused on walking and dementia were attracted to this type of physical activity because they understood that it was good for them and would improve their wellbeing (McDuff & Phinney, 2015). They also reported benefits of heightened social connections when walking in groups and enjoyed the opportunity to be outside in nature.

Figure 5

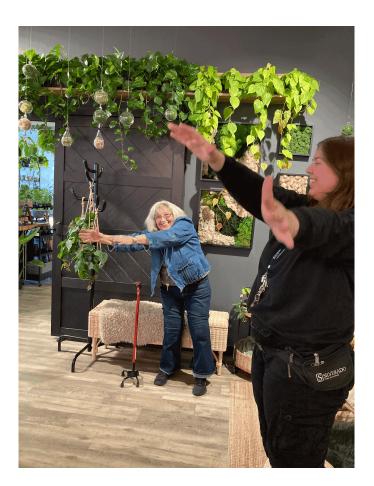
Residents in Middle of Walk that was Their Personal Best for Distance, 2.5 Miles.



Going on a walk did not always have to involve walking the dogs either. Exploring local businesses in the community that were within walking distance was a way to build relationships and establish Silverado's presence as an active member of the community. Supporting local businesses was something even the residents cherished and looked forward to. Residents were able to participate in social interaction while getting their physical activity done when completing community mobility to visit neighboring businesses. Relationships were developed when a walk to a nearby plant store led to discussion with the store manager about hosting future engagements or events in their space, showing the community's support for the Silverado residents.

Figure 6

Residents Doing Some Light Stretching After Walking to Local Business, Rooting For You.



On another occasion residents were able to offer a gift to a local cafe for always being welcoming to the residents and providing exceptional hospitality. Another special moment of community engagement while also participating in physical activity involved residents coming together to support a fellow resident whose grandson has down syndrome. Residents came together to show their support at an event called GiGiFIT Acceptance Challenge and completed a one mile inspirational walk. A resident who was unable to finish the walk last year was able to do the entire mile this time, and another resident who is not as mobile was able to finish the walk with the assistance of an OT student implementing energy conservation strategies. Although this resident may have been one of the last to finish the walk, it was still a great accomplishment for her to finish and fulfilling to know she was doing it for a good cause.

Figure 7

Residents at Start of One Mile Walk for GiGiFIT Acceptance Challenge Event.

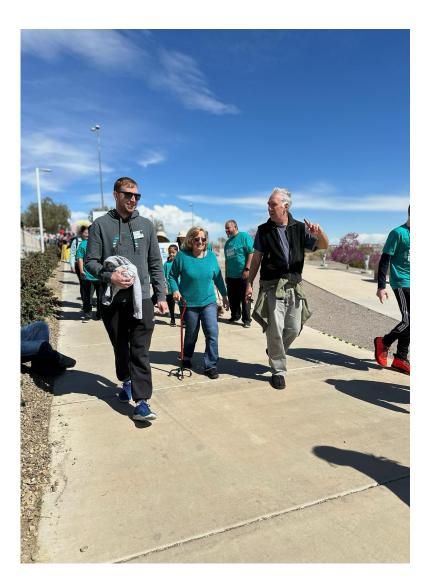


Figure 8

Residents Enjoying a Snack at Bronze Cafe After Delivering Gift.



Education

Occupations that fall under the category of education include activities that are needed for learning or participating in an educational environment (AOTA, 2020). Specific types of occupation within education are formal educational participation, informal educational exploration, and informal educational participation. Although individuals with dementia face significant difficulties related to memory, this does not mean that they are unable to benefit from novel learning activities. Research actually shows that people living with dementia are capable of novel learning without the use of structured interventions (Ingebrand et al., 2021). Some within this population still perceive themselves as individuals with the ability to engage in educational activities and are motivated to participate in the process of learning. It has also been shown that learning throughout the lifespan can be beneficial to facilitating social participation, thus helping to promote a positive wellbeing.

Informal Educational Participation

Residents of Silverado had the opportunity to explore the Neon Museum and learn about the history of old Las Vegas signs, reminiscing on how the city has changed throughout the years. They were eager to learn about each sign and explored the whole museum until they had seen it all. The OT student was able to provide physical support by pushing those who were not as mobile in a wheelchair around the museum. Vision problems are also common within this population, and the OT student was able to guide residents to find informational signs and read them if needed. This allowed for residents to make the most of their experience at the Neon Museum and engage in informal educational learning to enrich their minds.

Figure 9

OT Student Providing Physical Assistance for Resident in Wheelchair.



Another powerful moment for Silverado residents to engage in informal educational participation was when attending a class provided by the Osher Lifelong Learning Institute (OLLI) at the University of Nevada, Las Vegas (UNLV). Residents were able to interact with other older adults, learning about each other's experiences while building connections. Social connectedness was an obvious benefit of attending this class, which was observed when the residents were cheerfully engaging in conversation with other members of the class. OT students

were able to provide their own perspectives along with verbal cues to keep conversations flowing and engaging.

Figure 10

Residents Participating in Conversational Class Hosted by OT Student from OLLI at UNLV.



Work

The idea of older adults performing occupations that fall under the category of work, especially those who have dementia, can be a difficult idea to conceptualize. Many older adults are retired and may have lost the physical or mental capacity to be able to carry out work related duties. Nonetheless, these types of occupations can be vital to keeping older adults active, cognitively stimulated, and feeling that they are making a valuable contribution to society. According to the OTPF–4 (AOTA, 2020), work is described as labor that is related to developing, producing, delivering, and managing objects or services. Work is often thought of as a way to earn money, but can also provide benefits of social connectedness, contributions to society, and structure to an individual's daily life through the development of routines. Occupations that can be described as a form of work are often done out in the community, providing valuable opportunities for community engagement.

Those with dementia are more often than not forced to abandon work due to the deficits they have acquired. They may also have already retired, no longer need to work, or no longer have the desire to work. This does not mean that there is no longer opportunity for this population to participate in other forms of work besides the traditional idea of working for money. Volunteering is another way for people to participate in the occupation of work without the same requirements and purposes of working a job for financial gain. Volunteer participation is listed as an occupation under the category of work that is described as performing unpaid work activities that benefit a selected group of people, organization, or cause (AOTA, 2020). Volunteering can be self-fulfilling, and a valuable way to engage individuals with dementia in work that brings them out into the community. Research has shown that volunteering has the

potential to increase social, physical, and cognitive activity in older adults, thus leading to improved functioning (Anderson et al., 2014).

Volunteer Participation

Silverado residents had the opportunity to participate in volunteering at a school for Nevada reading week. Residents were assigned to classrooms with an OT student or staff member to read books to kids in order to honor Nevada reading week and provide their time and efforts to the children of the school. Residents showed that they were able to become animated when reading, keeping the attention of all the students and putting smiles on their faces. The residents appeared to really value this experience and believed that they were contributing in an important way to demonstrate the importance of reading to children. OT students were able to give subtle cues to the residents in order to improve their delivery, such as reminding them to show the pictures of the page they were reading in order to help keep the children engaged. If residents needed a break from reading, the OT students were also available to provide relief and take a turn reading as well. In all the residents really valued providing their service to benefit children and keep themselves cognitively stimulated.

Figure 11

Resident Choosing Books to Read to Kids When Volunteering for Nevada Reading Week.



Leisure

Leisure is an important type of occupation for people across all lifespans and populations to engage in. This is vital time for people to engage in hobbies, recreational, and other activities that are enjoyable and non-obligatory. This is exactly how it is described in the OTPF–4 (AOTA, 2020), as non-obligatory activities that are intrinsically motivated and done during free time, and not associated with occupations such as work, self-care, or sleep. The two occupations that fall under leisure include leisure exploration and leisure participation. There can become an abundance of time for leisure activities for older adults when other obligatory occupations such as work have ceased. Many options to engage in leisure activities are available at Silverado, but it is still important to find new types of leisure activities for residents to participate in. A good way to do this was to find leisure activities out in the community for residents to be a part of, so that they could either experience something novel or get back in touch with something they used to do more often.

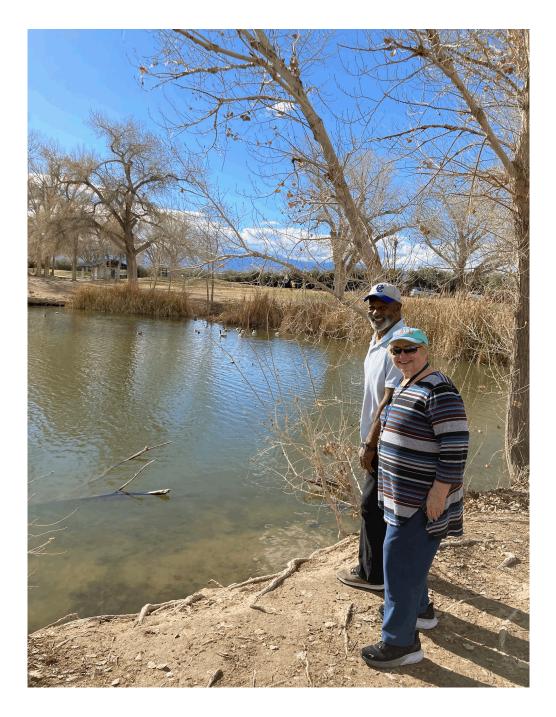
Leisure Participation

The main type of leisure occupation that residents participated in was leisure participation. Leisure exploration was an ongoing process with the residents to identify new types of community engagement and ensure that something was being offered that caters to everyone's interests. This was done at the beginning of the OT student's experience in order to ensure that recommendations and plans were made to fulfill all of the residents' interests. A pleasant outing to Floyd Lamp Park was one of the highlights for residents in regard to leisure participation and community engagement. This outing allowed the opportunity for residents to immerse themselves in nature, indulge in some tasty treats, and enjoy each other's company. Green spaces such as a park have been shown to help people with dementia engage in

meaningful occupations, have the opportunity for positive risk taking, and reinforce their identity (Mmako et al., 2020). This highlights the benefits of this type of leisure community engagement and supports the continued use of green spaces to help improve the well-being of people with dementia.

Residents were able to walk around the ponds at the park while observing the beautiful scenery and feeding the flocks of ducks. One resident got in touch with her artistic side and started taking pictures with her phone, allowing her to engage in a meaningful occupation that she has always valued. Other residents enjoyed sitting at a table conversing and watching the birds. Ensuring everyone was content with what they were doing and felt included was an important factor to consider for the OT student. One resident expressed their feelings that they did not feel included and required some redirection and special attention in order to help her regulate. The OT student was able to help remediate the problem by removing others from the situation who became distressed and found a way for the resident who felt left out to be included.

Residents Taking in the Scenery at Floyd Lamp Park.



Another leisure outing that brought residents out into the community was visiting Calico Basin near Red Rock Canyon. Residents were able to enjoy the beautiful scenery either from the bus, or on a short nature walk that was quite accessible for all populations. Those who partook in the nature walk were able to get a little closer to the towering red rocks, looking up in awe and appreciating being out in nature. The OT student was able to ensure that these residents who desired a more immersive experience were able to safely get up close and personal, without feeling as if they were being closely monitored. Having multiple OT students available to monitor all residents was very useful, because those who wanted to go on a walk were able to gain a sense of independence and engage in positive risk taking. Residents who did not feel up to the challenge were able to stay on the bus as they pleased to gaze upon the majestic Red Rock Canyon.

Residents Enjoying a Hike Near Red Rock Canyon.



Social Participation

Social participation was one of the most important types of occupation for Silverado residents to engage in. Many if not all of the previously mentioned activities involved some kind of social interaction. The main occupations that were observed to fit under the category of social participation included peer group participation and community participation. Much of the research supporting the activities included in this document mention benefits of social interaction and connectedness (Anderson et al., 2014; Ingebrand et al., 2021; McDuff & Phinney, 2015; Norval et al., 2021; Ovenden et al., 2016). This highlights the value of community engagement facilitating social participation, which is an important factor to improving the lives and wellbeing of people with dementia.

Peer Group Participation

Most of the community engagement activities done with Silverado residents could fall under the occupation of peer group participation. Community engagement activities were always done with groups of residents in order to give everyone the opportunity to be included and benefit from the experience. This also created a space for residents to be together with others who have similar struggles, helping to combat low self-esteem knowing they would not be judged and could receive support from their peers. Relationships amongst residents were strengthened through peer group participation, with multiple reports of the perceived benefit of camaraderie when going on community outings. An interesting perspective brings to light that it is indeed worth it to incorporate peer groups when working with those who have dementia. A social return on investment analysis showed that the benefits of being a part of dementia peer groups outweighed the cost of investment (Willis et al., 2016). These benefits were increased mental stimulation, reduced loneliness, and lower isolation.

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Some of the most valued peer group outings revolved around food, which is no problem at all. It was valuable time to connect with one another while enjoying a tasty meal or treat. OT students were able to give valuable assistance with reducing confusion, and ensuring a smooth process was executed in order to reduce stress for residents. Some of the strategies implemented included simplifying orders, collecting orders ahead of time so that focus could be placed on transitioning into an establishment upon arrival, and assisting with collection and cleanup of meals. This allowed for the focus of lunch outings into the community to be on social connections and enjoyment of each other's company. A Silverado favorite of going out for ice cream became a weekly staple, especially due to the great hospitality one establishment has shown the residents continuously. This tradition and relationship that was developed with an ice cream shop highlights the power of community engagement, and that something as simple as going out for a cold treat can bring happiness into the lives of individuals with dementia.

Residents out Munching on some Burgers and Fries at Five Guys.



Residents at a Silverado Favorite, Bruester's Ice Cream.



Community Participation

Some of the most amazing moments where residents shined when demonstrating their unique abilities and willingness to interact with others revolved around community participation. Residents most certainly met the criteria of completing occupations that can be labeled as community participation, which are described as activities that lead to successful interactions at the community level (AOTA, 2020). This could involve interacting with neighborhoods, organizations, schools, or other groups that are out in the community. It was enlightening to see residents' eagerness to connect with other groups of people while out in the community. These opportunities can allow for people with dementia to utilize previously developed skills and support the success of activities with their presence.

A community participation activity that became an almost weekly occurrence was attending a music class called Intergenerational Interludes, hosted at the Children's Discovery Museum. This programming invites parents, kids, and older adults to participate in an interactive music class led by a certified music therapist. Smiles and laughter were always present when residents attended this event, and it was obvious that they felt joy when surrounded by the positive energy of music and young children being carefree. Strong evidence exists that arts such as music and dance can lead to positive outcomes for people with dementia, which include increased participation, communication, attention, and social connections (Ward et al., 2021). Intergenerational programs for people with dementia and children or youth have also shown potential to positively impact behavior, mood, and engagement for all parties involved if the activity is perceived as meaningful to participants (Galbraith et al., 2015). This further supports the use of a music class such as Intergenerational Interludes to ensure beneficial community participation is being provided to Silverado residents.

Residents Receiving Instruments at the Intergenerational Interludes Music Therapy Class.



Many of the other community engagement activities that were labeled as occupations under education, work, and health management also included components of community participation. When residents completed walks to neighboring businesses and interacted with staff to establish relationships, it most definitely solidified that engagement as community participation. The social aspects of these interactions led to meaningful moments being created that will support positive future collaboration. It is important to establish these relationships so that the Silverado community can receive additional support and recognition that will benefit the lives of its residents through social participation. At the same time Silverado and its residents will be supporting the success of these welcoming businesses by continuing to visit in the future.

Figure 17

OT Student and Resident Relaxing at Neighboring Business in Community, Rooting For You.



Residents Supporting the Local and Welcoming Bronze Cafe.



Some of the other community engagements that fell under work and education also demonstrated successful interactions with an organization or group. When residents attended the conversation class from OLLI at UNLV, they were welcomed with open arms by other members of the class. OLLI students recognized the residents as valuable contributors to the class and were able to find unexpected connections between each other that led to positive social participation. Volunteering to read for children at a school was another powerful moment of community participation. Residents' enthusiasm when reading filled classrooms with laughter and smiles, which is a testament to the valuable contribution people with dementia can bring to the table when participating in community engagement. One resident in particular felt as if she was stepping back into one of her prior roles as a teacher, and really benefited from getting back into her element stating, "it all came back to me."

Figure 19

Resident and OLLI Student Having Positive Social Interaction After Discovering a Connection.



Resident Stepping Back into her Prior Role as a Teacher When Volunteering to Read.



Conclusion

The variety of community engagement activities completed with Silverado residents is proof of the ability for people with dementia to still be active members of the community. Through an occupational lens, community engagements were able to be categorized into all the different categories of occupation except activities of daily living. With the knowledge of the benefits of occupational balance and some of the benefits that each specific type of occupation can provide, it is hoped that this document will serve as an educational tool to support the continued use of community engagement to improve the lives of people with dementia. It also serves a purpose of advocacy for OT student utilization within memory care, as these engagements were planned and facilitated with the assistance of OT students to support their success. The most important takeaway from this experience is the joy that was brought to the residents of Silverado through community engagement, and that dementia is not something that should hinder an individual from experiencing its benefits.

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Appendix B

Occupational Therapy Student Utilization Questionnaire (OTSUQ)

Was the use of occupational therapy students beneficial to improving the experience of community engagements?

1) No 2) Neutral 3) Somewhat 4) Yes

Was there an appropriate variety of different activities done on community outings?

1) No 2) Neutral 3) Somewhat 4) Yes

Were occupational therapy students useful in helping to navigate difficulties when on

community outings?

1) No 2) Neutral 3) Somewhat 4) Yes

Were interactions with occupational therapy students positive?

1) No 2) Neutral 3) Somewhat 4) Yes

Do you believe that Silverado should continue to utilize occupational therapy students for

community engagements?

1) No 2) Neutral 3) Somewhat 4) Yes

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Curriculum Vitae

Andrew Stevenson, OTDS

University of Nevada, Las Vegas mynameisandrewstevenson@gmail.com | stevea6@unlv.nevada.edu

Education

University of Nevada, Las Vegas Occupational Therapy Doctorate

Estimated May, 2024

May, 2020

Capstone title: *Improving Occupational Therapy Student Utilization Through a Community Engagement Program for Individuals with Dementia* **Adviser:** Karmella Bognot, OTD, OTR/L

University of Nevada, Las Vegas Bachelors of Science in Kinesiology

Scholarships

University of Nevada, Las Vegas	
OTD Out of Area Fieldwork Assistance	2023
Millenial Scholarship	2014

<u>Clinical Experience</u>

Capstone Silverado Summerlin Red Rock Memory Care	January - May, 2024
Level IE Silverado Summerlin Red Rock Memory Care Community adults	September - October, 2023
Level IIB Tilton's Therapy Community/Outpatient pediatrics	May - August, 2023

Level ID Speakeasy Therapy Services Outpatient pediatrics	February 2023
Level IC Cornerstone Christian Academy and Tykes Preschool Community pediatrics	October, 2022
Level IIA Dignity Health Rehabilitation Hospital Inpatient rehab	May - August, 2022
Level IB Centennial Hills Hospital Acute rehab	April - May, 2022
Level IA The Garden Foundation Adult daycare	October - November, 2021

Community Service

Silverado Red Rock Memory CareSeptember, 2023UNLV DashFebruary, 2022

<u>Affiliations</u>

American Occupational Therapy Association

2021 - Present