

**The Purpose Program: Improving Quality of Life of Nursing Home Residents with
Dementia Through Participation in Meaningful Activity**

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Table of Contents

Abstract.....5

Needs Assessment.....7

Site Description7

Needs Assessment Process7

Interview Process7

Initial Interview7

Interview with Therapy Staff8

Interview with Nursing Staff.....8

Interview with Activities Department.....9

Analysis of Results9

Gap Analysis10

Literature Review10

Capstone Project Plan and Process17

Goals and Objectives17

Project Implementation17

Recruitment Process17

Participants18

Timeline of events18

Project Evaluation and Results20

Evaluation Process20

Discussion and Impact23

Sustainability24

Conclusion25

References26

Initial Interview with Therapy Staff – April 202129

Interview with Therapy Staff – January 202331

Appendix C32

Interview with Nursing Staff – January 202332

Appendix D33

Interview with Activities Department – January 202333

Student Learning Plan34

Interest Checklist (Matsutsuyu, J., 1969) Results36

Closet after Reorganization37

Mood Before Activity.....40
DEMQOL Results43
Exit Interview with Therapy Staff – April 202344
Exit Interview with Nursing Staff – April 202345

Abstract

Before the pandemic, the memory care residents at Aspen Place Health Campus (APHC) had fulfilling schedules with limited downtime. The residents were provided with vast opportunities for meaningful activity and occupational engagement provided by the nursing staff and activities department. During the pandemic, APHC was forced to stop all activities with the memory care residents due to safety restrictions and precautions. Since then, APHC has been instructed to resume “normal” pre-pandemic daily activities and programming. The activities department was successful in providing the memory care residents activities, however the nursing staff was not due to high staff turnover, and limited guidance and resources on the activities they should have been conducting with the residents. Because of this, the memory care residents were given limited opportunities to engage in meaningful activities during downtime, which resulted in poor mood, increased sedentary behavior, and overall decreased quality of life (QOL). There was a gap between what the memory care residents wanted and needed to do and what APHC provided for them. This capstone project, titled The Purpose Project, was focused on providing APHC an activity program that consisted of over 80 meaningful and evidence-based activities for the nursing staff to implement with the memory care residents to reduce sedentary time, improve mood and increase QOL of the residents. The Purpose Project was conducted twice a day, every weekday for five and a half weeks with participating memory care residents. Overall, Dementia Quality of Life (DEMQOL) scores increased by an average of 13 points for the participating residents, 92% of the activities resulted in positive mood after and sedentary time of the participating memory care residents was reduced by 66%.

Keywords: dementia, memory care, nursing home, quality of life, sedentary, meaningful activities, positive mood, occupational therapy

The Purpose Program: Improving Quality of Life of Nursing Home Residents with Dementia through Participation in Meaningful Activity

This capstone project, titled the “Purpose Project” took place in the memory care unit at Aspen Place Health Campus (APHC), a nursing home located in Greensburg, Indiana. Before implementation of this capstone project, the memory care residents at APHC spent the majority of their downtime engaged in sedentary behavior, which exacerbated negative symptoms of dementia resulting in poor mood and overall decreased quality of life (QOL). Negative symptoms of dementia include aggression, agitation, anxiety and wandering which can lead to adverse outcomes for the individual such as increased falls, self-inflicted pain, accidental injuries, poor mood, and loss of relationships, resulting in decreased QOL (Wong & Leland, 2016). Not only do negative symptoms of dementia have adverse outcomes for the individual, but also cause conflict with nursing staff and other residents in the facility (Wong & Leland, 2016). Nursing staff often face increased stress, burnout, high turnover rate and work-related injuries from negative symptoms of dementia (Kim & Woods, 2012). It is undoubtedly evident that preventing exacerbation of negative symptoms of dementia with decreased time spent in sedentary activity is important for not only the individual with dementia, but for the staff, family, and other residents as well. The purpose of this project was to develop and implement a program for the residential care associates to provide the residents with purposeful occupations in replacement of sedentary behaviors during downtime to prevent exacerbation of negative dementia symptoms. Because occupational therapists use their knowledge of the transactional relationship among the client, the client’s engagement in valuable occupations and the context to design occupation-based intervention plans, this project needed to be guided by the profession of occupational therapy (OT) with an OT student (AOTA, 2020). To ensure sustainability, the

project needed to contain activities that were no-cost, required little to no preparation, and for materials to be on site. The activities also needed to accommodate each resident with modifications already in place to provide a just right challenge. Lastly, the activities needed to be purposeful and meaningful to each of the residents. The Purpose Project was a combination of all these.

Needs Assessment

Site Description

APHC is not limited to just skilled nursing and memory care, they also offer assisted living and in-house physical therapy, occupational therapy, and speech-language pathology for all qualifying residents. When asked to take on an OT student, APHC was welcoming of a capstone student to help improve QOL of their memory care residents.

Needs Assessment Process

To initiate the capstone project, a needs assessment was conducted starting with a site interview before the capstone experience began and continued through the first week of the onsite capstone experience. A total of four interviews were conducted involving the departments of nursing, therapy, and activities. After the problem was identified, the literature was consulted to explore the gap between what the site currently had and potential solutions. After reviewing the literature and establishing the correlation of solutions within the OT scope of practice, the capstone purpose was created.

Interview Process

Initial Interview

The initial site interview was conducted via phone with a Licensed Occupational Therapy Assistant employed by the site in April 2022. Specific details of this interview can be seen in

Appendix A. Overall, the purpose of this interview was to obtain more information about the site itself, identify the site's needs and explore the staff's ideas for a capstone. Through this interview, the student learned that their project would take place within the memory care unit and should be focused on replacing sedentary behavior with meaningful activities to improve QOL of the residents.

Interview with Therapy Staff

The following interview was conducted onsite during the first week of the capstone experience with the therapy staff. Specific details of this interview can be seen in Appendix B. Overall, the purpose of this interview was to see if any changes had been made since the initial interview that took place a year and three months ago and to obtain more information on the memory care residents as well as capstone project ideas and sustainability. Through this interview, the student learned that pandemic restrictions had been lifted and the focus of the project should still be to improve QOL of the memory care residents through decreasing time spent engaged in sedentary behavior.

Interview with Nursing Staff

The interview with the memory care unit's nursing staff also took place the first week of the capstone experience. Specific details of this interview can be seen in Appendix C. The purpose of this interview was to obtain more information on the memory care residents' daily routine and to learn more about the nursing staff's availability and interest in conducting activities with the residents for project sustainability purposes. The student learned that the memory care residents had a structured day consisting of meals, morning, and afternoon activity, as well as one hour of rest after lunch. Between scheduled events, the residents spent their

downtime watching television or napping. Lastly, the student learned that the nursing staff was agreeable to engage more with the residents but were unsure of activities to do with them.

Interview with Activities Department

The last interview was also conducted during the first week of the capstone experience with the activities department. Specific details of this interview can be seen in Appendix D. The purpose of this interview was for the student to learn more about the activities department, activities that the residents enjoyed, needs of the activities department and any suggestions they had for this capstone project. Though this interview, it was made evident that the activities department offered a variety of activities for the residents with the residents favoring cooking and exercise activities the most. The student also learned that the department would have liked to offer more activities to the residents, but time and staffing were inhibiting. Lastly, the activities department proposed the student to make a list of activities for the nursing staff to do with the residents during their down time to prevent the residents from being sedentary.

Analysis of Results

Based on the needs of APHC obtained from the needs assessment, the student's capstone project centered around program development and focused on increasing QOL of the memory care residents through participation in meaningful activities. To ensure sustainability, a binder containing the capstone project's activities would be given to APHC so it can be referred to by nursing staff at their discretion. The activities also needed to have no monetary cost, require little to no preparation, and materials needed to be available on site. The activities should also undergo task analysis to set in place task instructions and modifications, providing a just right challenge so each resident could participate. Lastly, the activities needed to be of interest to each resident, guaranteeing meaningful occupational engagement.

Gap Analysis

Synthesizing information from the interviews with therapy staff, it was made evident that the COVID-19 pandemic caused APHC to make many modifications, including cessation of activities, to ensure safety among their residents. This resulted in decreased occupational engagement amongst the residents. Since the beginning of this capstone project in early 2022, the pandemic-related restrictions have been lifted and APHC has been instructed to re-implement all activities and remove modifications, however this has not happened. Because of this, the facility was limited in providing their residents, especially the memory care residents, opportunities to engage in purposeful activities during downtime between scheduled events, activities, and meals which results in poor mood, increased sedentary behavior and overall decreased QOL for the residents. There was a gap between what the memory care residents wanted and needed to do and what APHC was providing for them.

Literature Review

This literature review was conducted to retrieve the most current research regarding strategies for improving QOL of memory care residents at nursing homes. The information retrieved from this review was used to determine the gap and aided in the development and implementation of this capstone project named the “Purpose Project: A project focused on improving QOL of APHC’s memory care residents through meaningful activities.” A systematic approach was implemented in this review and the following databases were utilized: PubMed, AJOT, and CINAHL. The search terms used were quality of life, nursing home, activities of daily living, instrumental activities of daily living, meaningful activities, occupational therapy, dementia, Alzheimer’s, sedentary behavior, and activity tolerance. The search was limited to articles published within the past 10 years of the establishment of the capstone project for

relevance. After consideration of each article, only those relevant to the capstone's focus, purpose and goals were included.

Impact of Dementia on Quality of Life

It should be noted that dementia is an umbrella term for memory loss, and Alzheimer's disease is the most common type of dementia. Specifically, Alzheimer's disease can last anywhere from three to twenty years with research suggesting most people progress through the three stages of the disease: mild, moderate, and severe (Gaugler et al., 2014). Diagnostic criteria for Alzheimer's disease are impaired memory and at least one other cognitive deficit such as aphasia that leads to significant impairment in social or occupational functioning (Biard & Samson, 2015). When people with Alzheimer's progress from the mild to severe stages of the disease, life quality often decreases due to a multitude of factors including depression, behavioral symptoms, and functional impairments (Gaugler et al., 2014).

Impact of Nursing Homes on Quality of Life

Because of the symptoms of dementia causing increased dependence and need for skilled care, many people with dementia move to memory care units within nursing homes. Globally, moving into a nursing home has been documented as a major life change for older adults and can be difficult for both people with dementia and their family members (Nygaard et al., 2020). The authors of one study considered the move to a nursing home as potentially traumatic as residents are at risk of leaving aside their everyday routines and losing their identity (Giné-Garriga et al., 2019). Unfortunately, many residents lose their everyday routines and resort to a sedentary and passive lifestyle where they are at the facilities mercy for any daily activity.

QOL is a multidimensional concept containing domains of functional status, social functioning, comfort, security, personal agency, and emotional and physical health (Gaugler et

al., 2014). It is evident that people in nursing homes often experience lower QOL compared to those who are living at home, especially those with dementia. As mentioned in Olsen et al. (2016), people with dementia living in nursing homes compared to people with dementia living at home experience almost four times less light exposure, show significantly more sedentary and less active behaviors, have a higher use of psychotropic medications, more use of walking aids, less social contact, and an overall significantly lower QOL.

Using Meaningful Activity to Improve Quality of Life

Though many nursing home residents with dementia experience decreased QOL, there are a multitude of ways to improve QOL. Research has shown that engagement in meaningful activity has proven to increase positive emotions, improve activities of daily living (ADL) performance, foster positive attitudes toward caregivers, decrease dementia-related behavioral symptoms and improve QOL and wellbeing (Regier et al., 2016). Replacing sedentary activity with meaningful activities also helps promote the sleep-wake cycle and mood as stated in a study by Leland et al. (2016). This study found that when time spent taking naps during the day was replaced with occupational engagement, the time usually spent napping was replaced with nighttime sleep, thus increasing the total hours of sleep each night which contributes to QOL. The National Institute for Health and Care Excellence established a quality standard call for older adults residing in nursing homes to be offered opportunities during their day to engage in meaningful activities that promote their health and mental wellbeing (NICE, 2013).

Many meaningful activities can be performed with other residents, making it a form of social participation. Providing scaffolded opportunities for social participation between the residents creates a sense of community within the nursing home and reduces feelings of institutionalization and improving QOL (Giné-Garriga et al., 2019). Not only does performing

activities together as a group provide benefits for the residents, but it also makes it easier on the staff to conduct the activities.

To ensure successful and meaningful engagement, person-centered care needs to be implemented with each client. Person-centered care is care that is individualized and adapted to the challenging preferences, abilities, and needs of each person (Gaugler et al., 2014). Regier et al. (2016) found that each stage of dementia provided different levels of cognition, physical capabilities, independence levels in basic ADLs and instrumental activities of daily living (IADLs), and varying behavioral symptoms. For example, those in the mild stage of dementia can tolerate 28 minutes of activity with regular cueing and redirection about 68.3% of the time and do best with activities that are goal-oriented, multistep, require sequencing and problem-solving skills. People in the moderate state of dementia can tolerate 24 minutes of activity with regular cueing and redirection about 78% of the time and are most appropriately matched with tasks that require repetitive actions, one to two step directions and don't always have an end goal. Lastly, people in the severe stage of dementia can tolerate 15 minutes of activity with regular cueing and redirection will be required about 78% of the time and are suited best with activities that are not goal oriented, have single steps, and contain simple movements or manipulations (Regier et al., 2016). Overall, individuals with any level of dementia can meaningfully engage in an activity if the activities appropriately match the needs of the person and proper assistance is available.

Though engaging in meaningful activities is vital, not all activities are appropriate for everyone. Understanding what types of activities to implement at each disease stage and their set up can guarantee benefits. When scheduling activities, the morning should be spent doing cognitively demanding activities, physical activity should be scheduled during the afternoon and

the evening should consist of low demand, sensory-based activities (Regier et al., 2016).

Types of Meaningful Activity

Cognitive Activities

Many meaningful activities are cognitive activities. Cognitive activities consist of any task that requires working memory such as reading, arts and crafts, music, conversation, multistep tasks, games, memory retrieval, ADLs, IADLs, etc. Cognitive activities strengthen the functioning and plasticity of neural circuits which strengthens the person's ability to participate in and respond to everyday tasks. Not only do cognitive activities strengthen the brain, but they also provide support to the brain functioning in the face of cognitive decline, as seen in dementia (Cheng, 2016). The demands of the activity determine the appropriateness for different levels of dementia. Activities that require problem solving skills and multiple steps are best matched to those with mild dementia while activities that involve sorting and manipulating objects can be performed by anyone, even those with severe dementia (Regier et al., 2016). Through task analysis, a cognitive activity can be matched appropriately to any stage of dementia.

Arts and Crafts. Another meaningful activity that is cognitively demanding is arts and crafts. Arts and crafts not only support the use of fine motor skills, but also work the mind. Based on the demands of the tasks, complex arts and crafts can be appropriate for those in mild to moderate stages of dementia (Regier et al., 2016). It is important that the activities are not demeaning, or it will become not meaningful.

Music. Music is an activity that can be enjoyed by people of all ages, including adults with dementia. Listening to music can elicit positive mood responses like smiling for people with dementia (Biard & Samson, 2015). Music is not limited to listening only as it also includes creating music. Creating music is a sensory experience and can also be physically demanding.

Creating music is great for all people with dementia regardless of level because it does not necessarily have to be goal oriented and can include simple repetitive actions (Regier et al., 2016). Participating in music activities or singing has been shown to improve behavior, mood, and cognitive functioning in persons with dementia as it has been documented to decrease stress responses with decreased heart rate and hormone levels (Biard & Samson, 2015).

Activities of Daily Living and Instrumental Activities of Daily Living. ADLs and IADLs are recognized as cognitive activities as they are often multistep and goal oriented. Research has shown that ADLs and IADLs are meaningful activities that need to be present in the residents' daily lives as they are crucial to facilitating adjustment to life in these facilities (Giné-Garriga et al., 2019; Nygaard et al., 2020). Examples of ADLs and IADLs are self-care tasks, dressing, cooking, cleaning, and laundry. When familiar daily routines and activities are maintained, a sense of home is felt which can prevent confusion. Based on the demands of the tasks, domestic homemaking activities are appropriate for those in the mild to moderate stages of dementia (Regier et al., 2016). Maintaining daily activities not only prompts movement, but also supports autonomy, instills purpose, promotes better psychological and social adjustment (Giné-Garriga et al., 2019).

Physical Activity

It is not surprising that research over the decades has reported that regular physical activity limits the development and progression of chronic diseases and disabling conditions, however nursing home residents spend most of their time engaged in sedentary behaviors (Giné-Garriga et al., 2019). Based on the demands of the tasks, exercise can be appropriate for those in all stages of dementia (Regier et al., 2016). Providing opportunities for physical stimulation have been proven by Henskens et al. (2018) to reduce cognitive, physical, mood, and behavioral

decline in nursing home residents with dementia. More specifically, aerobic exercise, balance and resistance training have been proven to help improve or maintain ADL performance in nursing home residents (Smallfield et al., 2017). A systematic review conducted by Cordes et al. (2021) supports chair-based exercise as a safe and feasible means of exercise that can improve physical and cognitive functions as well as well-being in nursing home residents. To deliver physical activity interventions successfully and sustainably, they need to be embedded into routine practice and nursing home staff should be involved in developing and delivering the intervention (Giné-Garriga et al., 2019). Examples of embedding exercise into routines include getting up from the chair and moving during television commercial breaks, encouraging movement after finishing a chapter of a book, adding household chores to daily routine, prompting movement at the completion of a board game, and encouraging five-minute walks with visiting family and friends (Giné-Garriga et al., 2019).

Overall, it is evident that with proper implementation, a person with any stage of dementia residing in a nursing home can successfully engage in a meaningful activity as a means to reduce sedentary behaviors and improve mood, thus improving QOL.

Guiding Model for Capstone

Since the focus of this capstone project was improving QOL of memory care residents in the nursing home through meaningful activity, the model used to guide the clinical reasoning throughout this capstone project was the Conceptual Model of Leisure Engagement for Quality of Life in Nursing Home Residents (LEQoL-NH). The LEQoL-NH positions that there is an interrelationship between four factors: principles of occupational justice, the continuity theory, leisure engagement, and resulting QOL with each factor being essential for improving QOL for nursing home residents (Causey-Upton, 2015). The LEQoL-NH takes ideas from the continuity

theory which suggests that people maintain interests, behaviors, and values across the lifespan with a combination of occupational justice ideologies to support the person's individual choices resulting in QOL through leisure engagement. This model states that when nursing home residents are offered opportunities for occupational engagement, participation in life increases and is necessary to promote optimal QOL (Causey-Upton, 2015). This model has roots that are founded in occupational therapy as it recognizes that people are occupational beings that have valued lifelong interests and activities, even those dwelling in nursing homes. This model aligns with the core principles of this capstone project: improving the memory care resident's QOL with purposeful and meaningful activities.

Capstone Project Plan and Process

Goals and Objectives

The goals and objectives for this project can be seen in the student learning plan in Appendix E. The focus of this capstone project was program development concentrated on the creation and implementation of a program to provide meaningful activities to memory care residents at APHC alleviating symptoms of dementia and improving QOL. Time spent sedentary, QOL, and mood were assessed throughout implementation of the capstone project. To ensure sustainability of this project, all resources and materials used were made available to the nursing staff at APHC.

Project Implementation

Recruitment Process

This project was submitted and approved by the Indiana University Institutional Review Board (IRB) to ensure ethical data collection and methods. This project was approved and deemed not human subject research, thus not requiring further IRB review. The participants of

this capstone project were residents of the memory care unit at APHC who gave verbal consent to participate in activities.

Participants

Eight participants were included in the capstone project. Demographics of the participants included female, white, dementia diagnosis and residing in the memory care unit at APHC. The average age of the participants was 89 with an age range of 69 to 98. All participants agreed to participate in the capstone project, though not all participants participated in every activity, either due to the nature of activity, unwillingness to participate, or unavailability. The average number of participants for each activity was three. Data on mood and time spent engaged in meaningful activity was recorded and used in findings for all participants, however three participants were excluded from the post project QOL assessment due to medical complications, death and moving to another facility.

Timeline of events

Week 1. During the first week of the capstone experience, the student spent time with the residents and started building relationships with the residents. The student documented the residents daily schedule and made notes of possible areas of improvement and questions to ask nursing, therapy, and activities staff. Interviews for therapy, activities and nursing staff were created.

Week 2. The second week of the capstone experience consisted of interviewing staff members of the following departments: activities, nursing, and therapy. Each interview can be found below in Appendices B, C, and D. The interviews were conducted to further the needs assessment process and obtain more information on the residents. The student also recorded the

inventory of the activities closet and organized the closet to increase accessibility as seen in Appendix G.

Week 3. During the third week of the capstone experience, the student analyzed and applied the findings from the needs assessment and finalized the capstone project plan and process.

Week 4. Week four of the capstone experience was dedicated to consulting the literature for evidence-based activities to improve QOL for nursing home residents with dementia.

Week 5. During this week, the Interest Checklist (Matsutsuyu, J., 1969) was conducted with each of the participating residents within the memory care unit at APHC to identify meaningful activities. Results from the Interest Checklist (Matsutsuyu, J., 1969) can be found in Appendix F.

Week 6. The Purpose Program binder was completed using the Interest Checklist (Matsutsuyu, J., 1969) findings and evidence-based activities found from the literature review. The student only included activities that were supported through the literature findings and were identified on the Interest Checklist (Matsutsuyu, J., 1969) by the residents. The Purpose Program binder included five sections of activities including ADLs/IADLs, exercise, music, arts and crafts, and cognitive activities.

Week 7. The beginning of week seven was spent administering the DEMQOL with the eight participating residents. The last part of the week started the implementation of the capstone project with two activities being completed twice a day. The protocol for activities consisted of the student asking for verbal consent to participate in the activity from the participating residents, assessing mood before and after the activity and documenting the activities' duration of time. Also, cognitive-based activities were performed in the morning and physical activities were

performed in the afternoon. Examples of cognitive activities were folding towels, card games, playing piano, arts and crafts and cleaning the dining tables. Examples of physical activity included YouTube exercise videos, bowling, dancing and cornhole. At the end of this week, one participating resident moved to another facility decreasing the number of participants to seven.

Week 8. Each day, activities were performed twice a day following protocol. More activities were researched and added to the binder. The capstone report was edited and revised.

Week 9 - 12. Activities continued to be implemented twice a day per protocol. Part two of the capstone report was completed during week nine. During week 12, one of the participating residents passed away decreasing the number of participants to six.

Week 13. DEMQOL was readministered with only five out of the six participating residents due to one resident having medical complications. Data was analyzed and findings from the project were reported. The capstone report was finalized. Presentations to the therapy staff and nursing staff were created.

Week 14. Presentations to the therapy staff and nursing staff were conducted. The site was presented with the Purpose Project binder. Exit interviews with nursing and therapy staff were completed.

Project Evaluation and Results

Evaluation Process

Since QOL is multidimensional, several evaluations were used to measure change from implementation of the capstone project. Evaluations of mood, amount of time spent sedentary and QOL were the focus of change in this capstone project.

Mood was assessed before and after each activity with the participating residents using a visual mood scale made by the student with concepts taken from the standardized Visual Analog

Mood Scale (VAMS). The VAMS has been proven to have excellent discriminant validity in measuring mood for people with dementia (Temple et al., 2004). The mood scale can be found in Appendix H. Each participant was asked how they were feeling using the choices of happy, energetic, sad, sleepy, tense and calm from the visual mood scale. Happy, energetic, and calm were deemed as positive emotions while sleepy, sad, and tense were deemed as negative emotions. Overall results can be found in Appendix I.

The average mood for the residents before starting the activity was 40% reported sleepy, 30% reported calm, 26% reported happy, 2% reported sad, 1% reported tense and 1% reported energetic mood as seen in Appendix J. After the activity, the average mood for the residents was 69% happy, 21% calm, 8% sleepy, and 2% energetic as seen in Appendix K. Thus, 92% of the activities resulted in a positive mood.

Furthermore, the average trends of mood from before to after the activities were 26% happy to happy, 22% sleepy to happy, 19% calm to happy, 10% calm to calm, 10% sleepy to calm, 6% sleepy to sleepy, 2% sleepy to energetic, 1% sad to sleepy, 1% sad to calm, 1% calm to sleepy, 1% energetic to happy, 1% tense to happy, and 1% tense to sleepy as seen in Appendix L. Overall, the activities positively affected the residents' moods.

Secondly, to measure the effect the capstone project had on the time residents spent sedentary, a weekly average of time all participants spent sedentary was timed before and during implementation phase of the capstone project. Before, the residents spent on average 90 minutes during the day engaged in sedentary behavior. During the implementation phase of the capstone project, the time residents spent engaged in sedentary behavior was reduced to 30 minutes a day, resulting in a 66% decrease in sedentary time.

The Dementia Quality of Life assessment (DEMQOL) was used to measure QOL pre- and post-implementation of the capstone project. The DEMQOL is a measurement of health-related QOL for people with dementia as it has been shown to have excellent reliability and is an accurate measure of health-related QOL for those with dementia (Chua et al., 2016). The DEMQOL was administered during week seven, before implementation of the capstone project and was readministered after cessation of the capstone project during week 12 of the capstone experience. The highest possible score on the DEMQOL is 116 points indicating high quality of life and the lowest possible score is 29 points indicating poor quality of life (Chua et al., 2016). The results of the DEMQOL can be seen in Appendix M. A total of eight residents were included in the pre-DEMQOL assessment, however only five residents were included in the post-DEMQOL assessment due to medical complications, death and moving to another facility. Only those who participated in the pre- and post-DEMQOL assessments were included in the results. The average pre-DEMQOL score was 92.4/116 points and the average post-DEMQOL score was 105.4/116 points. Overall, after five and half weeks of participating in the Purpose Program, four out of five participants scored an average of 13 points higher on the DEMQOL with one participant having no change in score.

Lastly, there was an exit interview with therapy and nursing staff at the end of the program to gauge their satisfaction with the program. The exit interview with nursing staff was focused on sustainability. Specific questions and answers can be found in Appendix N. Through the exit interview with nursing staff, the student learned that the staff felt more comfortable about conducting activities with the memory care residents after observing the student and having the Purpose Program binder to reference. During the interview, the nursing coordinator stated her staff are supposed to be conducting activities already since pandemic restrictions have

been lifted, however she has not been enforcing it due to lack of communication to her staff. She stated that Purpose Program gave her nursing staff all the resources and education needed to conduct the activities they should have been doing already.

The exit interview with therapy staff was focused on project evaluation and sustainability. Specific questions and answers can be found in Appendix O. Through this interview, the student learned that the capstone project met the needs of the site, and the therapy staff will continue to support this capstone project when the student leaves. Lastly, the student learned that the project's strengths included the project being easy to implement and the project was successful in improving QOL while weaknesses included not conducting all activities within the binder with the residents and only educating day shift nursing versus all nursing shifts.

Discussion and Impact

The purpose of this project was to organize and develop an evidence-based meaningful activities program for the nursing staff on the memory care unit to reduce sedentary time, improve mood and increase QOL of the memory care residents. The student was able to achieve this goal by creating and implementing a program titled the Purpose Program. The Purpose Program consisted of a daily program in which a cognitive activity was performed in the morning and a physical activity was performed in the afternoon and all activities could be referenced in a binder given to the site. The Purpose Program binder included five categories of activities: ADLs/IADLs, cognitive activities, arts and crafts, physical activity, and music. Cognitive activities included ADLs/IADLs like folding towels, arts and crafts like bouquet making, memory games and playing music. Physical activities included yard games like cornhole, bowling, dancing, YouTube exercise classes, and body weight exercises. To measure the effects of the Purpose Program, the student conducted activities within the binder following

protocol, for example cognitive activities in the morning and afternoon activities in the afternoon, every weekday for five and a half weeks for a total of 27 days. The goals of this project were to increase QOL of the memory care residents by decreasing sedentary time and improving mood. The results of the project indicated achievement of established goals. The participating memory care residents experienced decreased sedentary time by 66%, improved mood 92% of the time after activities and increased QOL scores by an average of 13 points on the DEMQOL. Overall, this project had positive effects on the participating residents in a multitude of ways.

Sustainability

Though the Purpose Program was created and led by an occupational therapy student, it is not limited to the profession occupational therapy. The student used principles of occupational therapy to create the program, including modifications to grade the activity up or down through task analysis, increasing accessibility of the activities. The Purpose Program can be led by anyone with experience working with people who have dementia. A limitation of this project was only having the student lead the activities. To increase sustainability of this project, it would have been more beneficial for the nursing staff to lead the activities and the student provide feedback and guidance to the nursing staff.

During week 14 of the capstone experience, the student gave a presentation overviewing the project, presenting the results, and educating the staff on how to sustain the project. The nursing staff, specifically the certified resident care associates, were agreeable to carry out the conduction of meaningful activities with the memory care residents.

During the presentation, all resources and materials were made available to the nursing staff at APHC in the form of a binder titled "The Purpose Project: Meaningful Activities for

Legacy Lane Residents.” Looking into the program itself, the activity supplies included in the program were readily available on site and require little to no preparation. Also in the binder, each activity contained a material list, number of participations required, instructions and modifications, making it easy to conduct the activity.

Conclusion

This 14-week Doctoral Capstone Experience (DCE) provided APHC with a meaningful activities program, The Purpose Program, which bridged the gap between the occupational deprivation the memory care residents were experiencing and the limited opportunities for meaningful occupations APHC was providing them. The purpose of this program was to prevent exacerbation of negative symptoms of dementia which leads to decreased QOL by giving the residents more purposeful days. By giving the memory care residents meaningful activities through the Purpose Program, the participating residents experienced positive mood after the activities 92% of the time. The participating residents also experienced more fulfilling days with a 66% deduction in sedentary time. Lastly, as indicated with the DEMQOL results, the Purpose Program also increased QOL for the majority of the participating residents. Because of the education provided by the student to the nursing staff at APHC and the project’s resources given to the site by the student, this capstone project would easily be sustained by the site ensuring continued improvements in QOL amongst the memory care residents.

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Appendix A

Initial Interview with Therapy Staff – April 2021

1. Do you have an idea of who might be my site mentor?
 - a. “OTR on site”
2. What are APHC current needs? How might occupational therapy fit into this?
 - a. “The residents in the memory care unit spend too much time watching tv, napping, etc. They need an activity program to prevent spending so much time engaged in sedentary behavior. The activity program should be backed by OT principles.”
3. What are potential areas of focus you can see a capstone project benefitting in this department?
 - a. “Program development- creating a binder of activities.”
4. How would you describe the goals of APHC?
 - a. “APHC’s overall goal is to provide quality care across all dimensions.”
5. What are some of the characteristics of the population at APHC?
 - a. “CVA, joint replacements, dementia”
6. What kinds of programming do you currently offer for the residents?
 - a. “Best Friends Approach to Dementia Care as well as an involved activities department, but the pandemic has restricted all programming.”
7. What are your funding sources for the capstone project?
 - a. “We cannot supply financial support of your project; however, you will have access to the facilities’ equipment and supplies.”
8. Is there anything you feel is missing at APHC or for its residents?

- a. “Memory care residents need more “fun” things to do in their free time.”
9. What does APHC need to better serve the residents?
- a. “Nursing staff need more ideas of things to do with the residents during down time.”
10. Where do you see an OT student best fitting?
- a. “Within the memory care unit”
11. Has APHC had a capstone student before?
- a. “We have never had a capstone student; however, we have had fieldwork students before.”
12. As this point, where do you see an OT capstone student assisting APHC and its residents?
- a. “Memory care unit”

Appendix B**Interview with Therapy Staff – January 2023**

1. Since our first meeting in April, what has changed?
 - a. “Since the first interview, the COVID-19 restrictions have lifted, and things are mostly back to normal with a few exceptions. The memory care residents have been more active as the activities department is back to seeing them twice a day, unlike when we first spoke. Even though they are getting activities two times a day, there is still a lot of downtime where the residents partake in sedentary activities like napping and watching television.”
2. What would you like to see different for the memory care residents?
 - a. “We would like to see them engaged in more meaningful activities instead of so many sedentary behaviors.”
3. What is the current independence/mobility levels of the residents?
 - a. “Right now, all of them are modified independent with mobility as most ~~of them~~ use rollators and they all require some assistance with ADLs.”
4. How many residents are in the memory care unit?
 - a. “There are eight memory care residents currently.”
5. How can I make this sustainable?
 - a. “There needs to be a physical copy of your project for the nurses to refer to and a presentation of the project should be given as well.”

Appendix C

Interview with Nursing Staff – January 2023

1. What does a typical day look like for the memory care residents?
 - a. “Most residents wake up around 7AM and eat breakfast around 8AM to 8:30AM. After breakfast, the residents go to the community living room area and watch tv or nap until 9:30AM when activities #1 occurs. Activities #1 lasts until 11AM. The residents then take another break until 11:30AM when lunch is delivered. Lunch will last until noon and the residents till take another break until 2:30 when activities #2 occurs. Activities #2 lasts until 4PM and the residents will break again till dinner at 5PM. After 5:30PM when dinner ceases, the residents will break one last time before bedtime, which differs for each resident. During breaks the residents usually nap or watch tv in their rooms or in the community living room and color at the dining tables.
2. What would you like to see different for the memory care residents?
 - a. “We would like more “fun” things to do with the residents besides coloring and watching tv.”
3. Would you have time to conduct activities with the memory care residents?
 - a. “Yes, between meals and scheduled activities.”
4. What resources do you have access to?
 - a. “Activities closet”
5. What kind of things do you enjoy doing with the memory care residents?
 - a. “Balloon bop and coloring”

Appendix D

Interview with Activities Department – January 2023

1. What kind of activities do the memory care residents currently do?
 - a. “Crafts, exercise, cooking, life remanence memories, bus trips to local restaurants, sports/yard games, and music”
2. How often do you do activities with the memory care residents?
 - a. “Two times a day, morning and afternoon”
3. What kind of activities do the memory care residents love?
 - a. “They love to do the cooking activities and exercise. They also love the daily chronicle, which is like a newspaper with history and current events.”
4. What would you like to see different for the memory care residents?
 - a. “The residents would benefit from more activities, and we wish we could do more activities with them, but staffing and time are limited.”
5. What could I do to help make these changes?
 - a. “It would be great if the resident care associate from nursing could lead activities between meals and our scheduled activities, so giving them a list of fun things to do would be great.”

Appendix E

Student Learning Plan

Student Learning Objective 1: The student will demonstrate the ability to provide client-centered, inclusive, equitable and evidence-based care at the capstone site through implementation of the capstone project.

Student Learning Objective 2: The student will demonstrate the ability to apply principles of evidence-based decision making throughout implementation of the capstone project to improve and expand the delivery and quality of occupational therapy services.

Student Learning Objective 3: The student will demonstrate the ability to promote health, well-being, and quality of life (QOL) for the targeted residents at the capstone site.

Project Goal 1: The student will gain and utilize knowledge about using meaningful activities to improve QOL and activity tolerance for residents with dementia in long term care to assist in program development.

Objective 1: The student will consult the research for evidence on meaningful interventions for people with dementia residing in long term care facilities.

Objective 2: The student will review assessments that are appropriate to use with people with dementia to assess QOL and activity tolerance throughout the capstone project.

Objective 3: The student will present findings from the literature review to the staff at the capstone site to assist in developing a program that best suits their needs.

Project Goal 2: The student will demonstrate ability to develop a program based on the literature review and needs of the capstone site.

Objective 1: Student will demonstrate the ability to incorporate evidence-based interventions to increase activity tolerance in the long-term care residents with dementia at the capstone site.

Objective 2: Student will demonstrate the ability to increase QOL of the long-term care residents with dementia by providing them a variety of opportunities to engage in meaningful occupations.

Objective 3: The student will demonstrate ability to use valid and reliable assessments to measure QOL and activity tolerance throughout the implementation of the program.

Project Goal 3: The student will ensure sustainability of the program development initiatives by week 14 to support maintenance of activity tolerance and promote QOL of the targeted population.

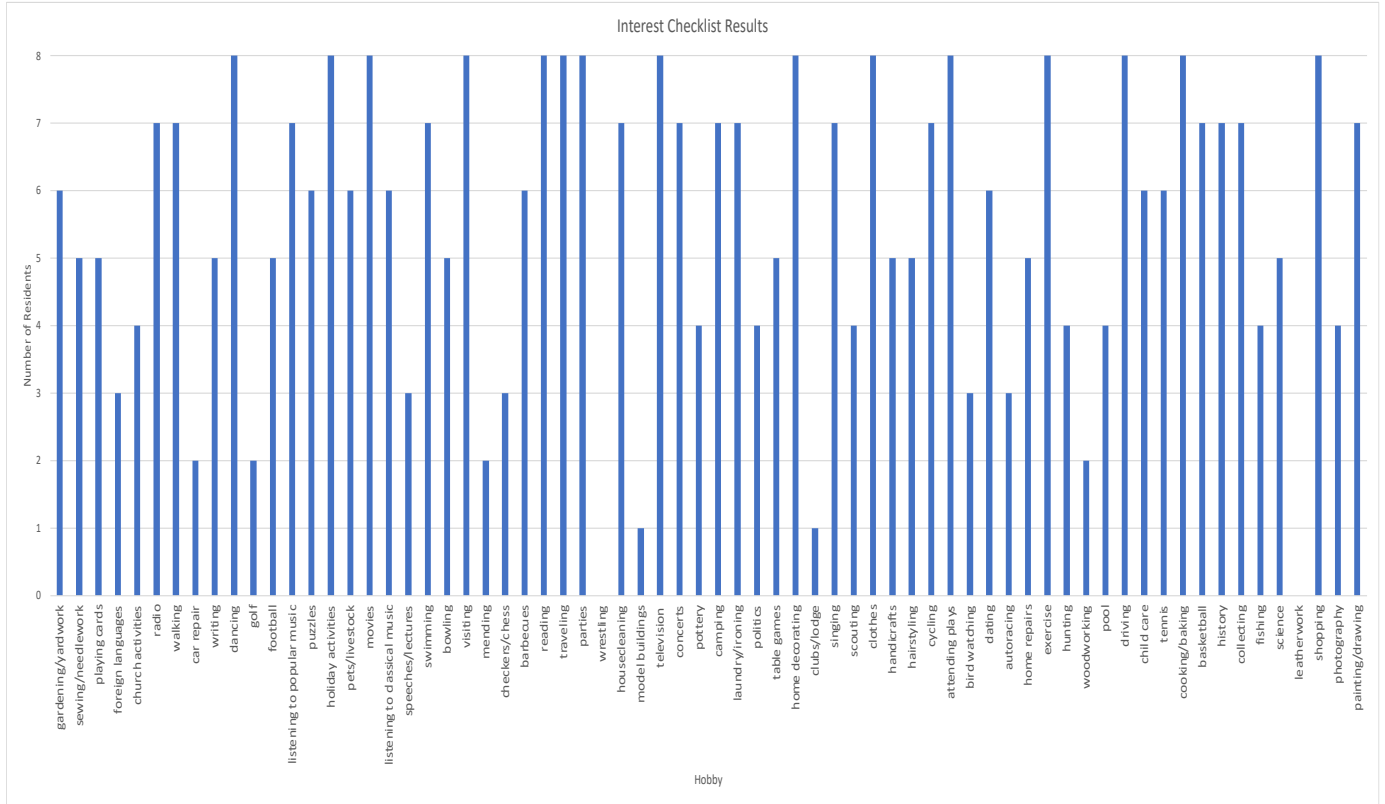
Objective 1: The student will present results and findings from the capstone project to the therapy department and staff at the capstone site.

Objective 2: The student will demonstrate the ability to educate therapy practitioners and staff at the capstone site on the importance of advocating for and providing meaningful interventions to the targeted population through a presentation at the end of the capstone project.

Objective 3: The student will create a binder about the project to provide the staff a resource to continue implementing the project after the capstone ceases.

Appendix F

Interest Checklist (Matsutsuyu, J., 1969) Results



Appendix G

Closet after Reorganization

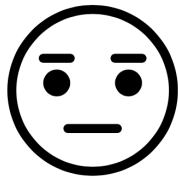


Appendix H

Mood Analog Scale (Temple et al., 2004)



Happy



Calm



Tense



Energetic



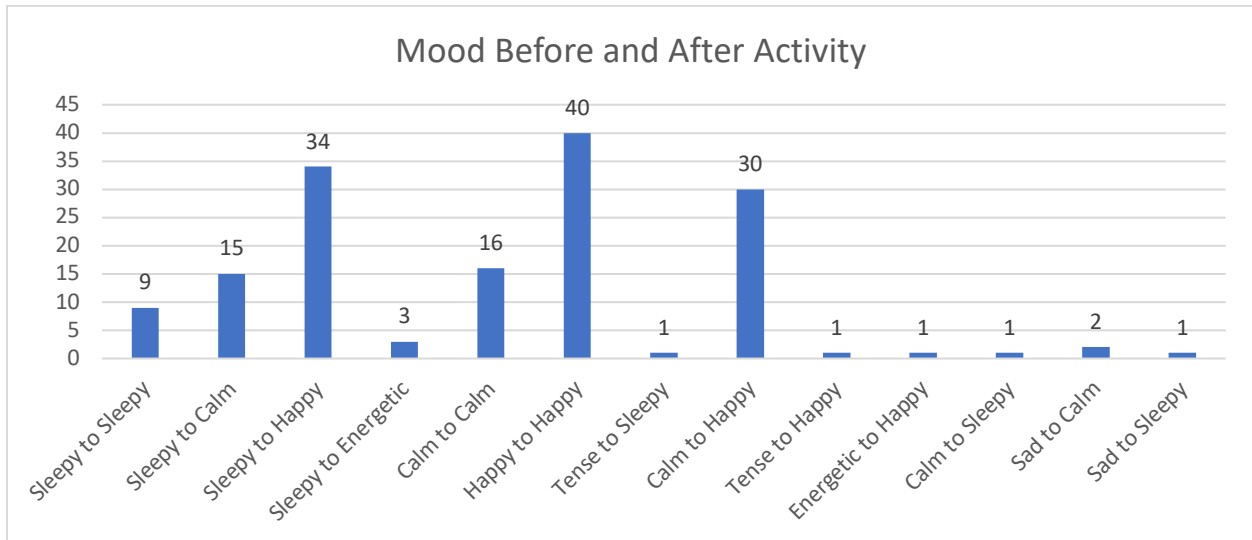
Sad



Sleepy

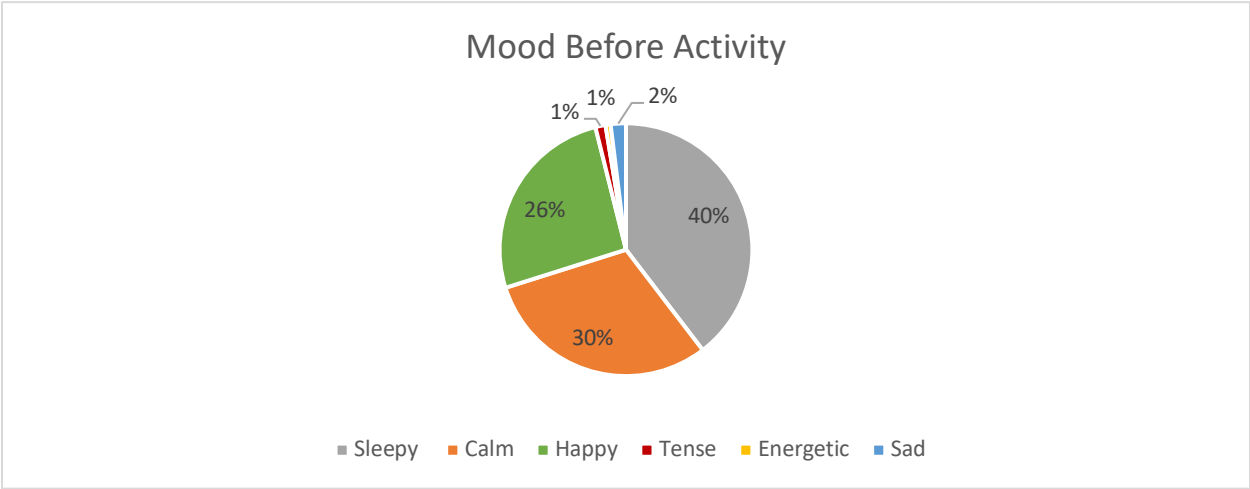
Appendix I

Mood Before and After Activity



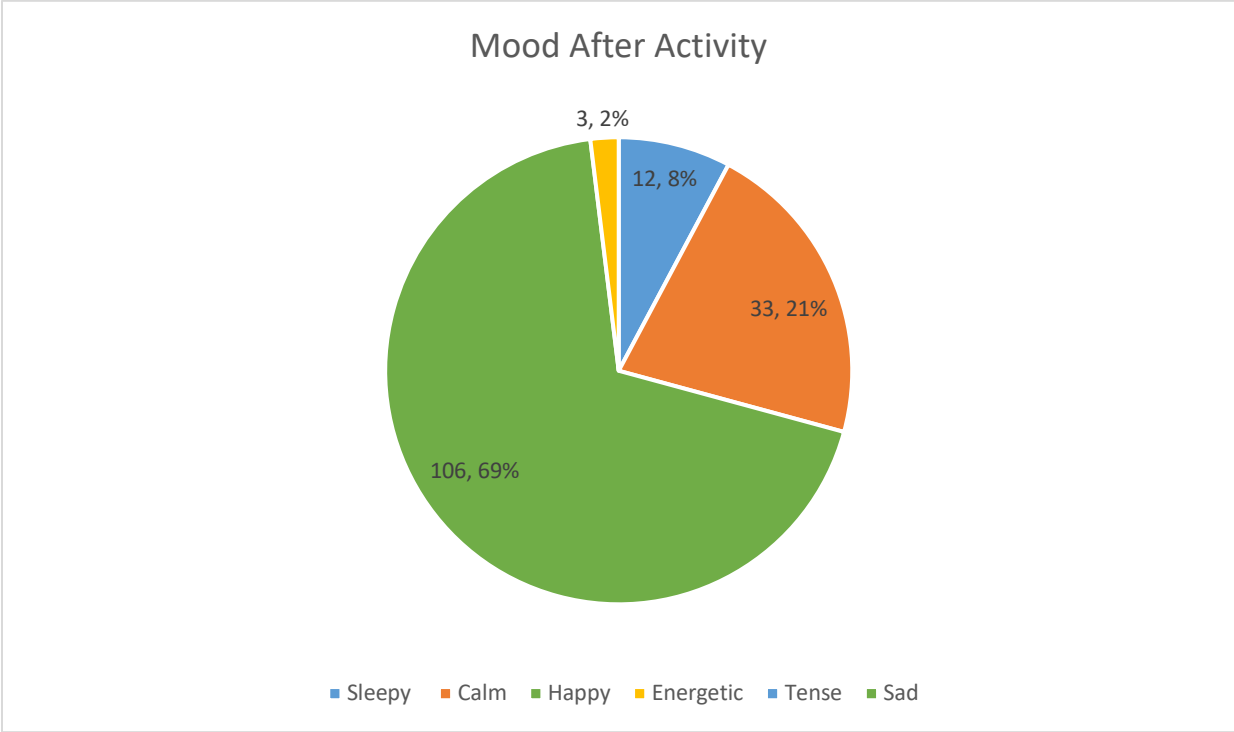
Appendix J

Mood Before Activity



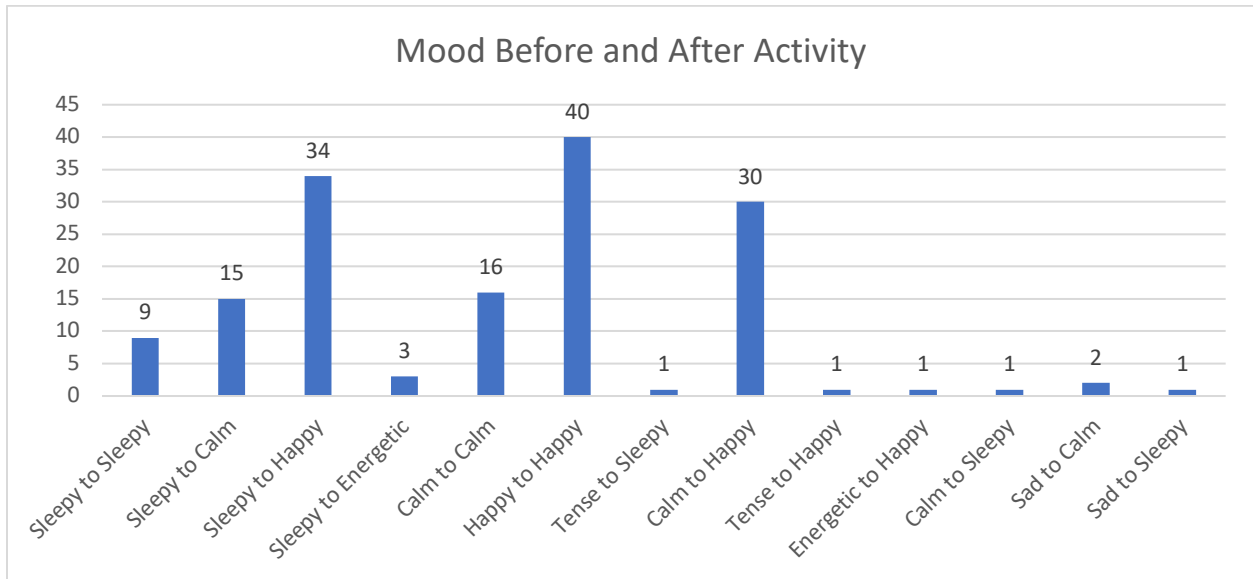
Appendix K

Mood After Activity



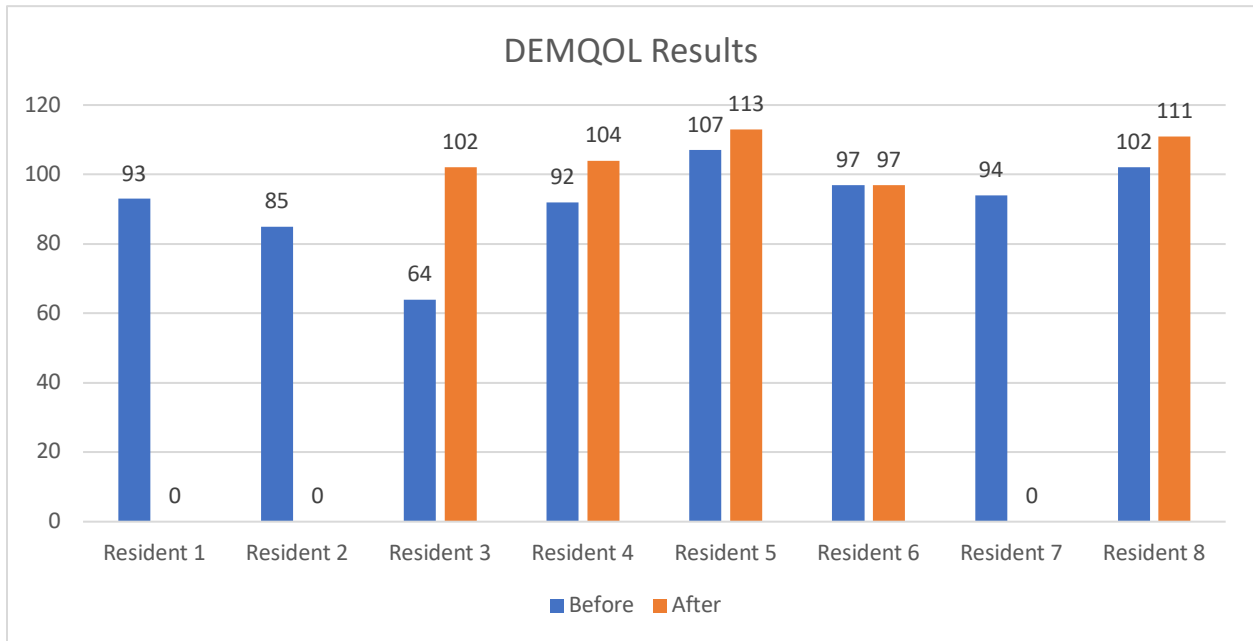
Appendix L

Mood Trends Before and After Activity



Appendix M

DEMQOL Results



Appendix N**Exit Interview with Therapy Staff – April 2023**

1. What were the strengths of this capstone project?
 - a. “Your project increased QOL of the memory care residents, it is easy to do, accessible and sustainable.”
2. What were the weaknesses of this capstone project?
 - a. “Unable to complete all activities listed within the binder due to time restraints, and only presented information to the day shift nurses”
3. Did this capstone project fulfil APHC’s needs?
 - a. “100%, we feel like Legacy Lane is much more active now.”
4. Did this capstone project have a positive impact on the memory care residents at APHC?
 - a. “Yes, your results proved that too.”
5. What can you do to ensure sustainability of this capstone project?
 - a. “Encourage nursing staff to continue the project.”

Appendix O**Exit Interview with Nursing Staff – April 2023**

1. Does this project binder increase your confidence and likeliness to conduct activities with the residents?
 - a. “Yes, I like having a resource.”
2. Have you seen a positive change in mood of the residents since implementation of this capstone project?
 - a. “Yes, the residents seem to engage more with each other, and they seek occupations more than sleeping.”
3. Did you learn anything from this capstone project?
 - a. “I didn’t know how much impact activities can have on a person.”
4. Do you think you can maintain this project when I leave?
 - a. “Yes, with this resource binder we can.”
5. What can you do to ensure sustainability of this capstone project?
 - a. “I can help encourage and enforce my CRCAs to do these activities.”