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School of Occupational Therapy

A New Portal for Engagement in Meaningful Activities for Older Adults with Dementia Using Innovative Technology

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A capstone project submitted in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree from the University of Indianapolis, School of Occupational Therapy.

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A Capstone Project Entitled

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Abstract

The aim of this project was to obtain grant funding to assist A Caring Place in purchasing multiple computer-based, person-centered devices from Its Never 2 Late (iN2L) technology. A Caring Place is an adult day service center that serves older adults with mild cognitive impairment and dementia, and varying degrees of confusion and physical functioning, all of whom have unique interests and past experiences. A Caring Place is committed to providing care that is person-centered, value-driven, independence focused, emphasizes well-being, and provides autonomy to the participants. iN2L technology can benefit participants at A Caring Place by providing them with opportunities to engage in meaningful occupations, reminiscence therapy, and social interactions. The occupational therapy doctoral student engaged in the grant proposal writing process by collaborating with the program director to determine the budget, outcome measures, objectives, methods, and dissemination procedures for this project. The primary goals of the technology are to increase participant engagement, well-being, and expression of positive emotions.

Keywords: person-centered care, technology, grant proposal, older adults

A New Portal for Engagement in Meaningful Activities for Older Adults with Dementia Using Innovative Technology

An Indianapolis-based non-profit adult day service is committed to providing person-centered care to their participants with dementia and other cognitive impairments. Person-centered care is an essential component to delivering the best care possible to older adults with complex needs, abilities, and desires (Epp, 2003). An emerging approach to utilizing person-centered care with this growing population is through the use of technology and computer-based devices that offer a variety of benefits and applications.

This literature review had five specific objectives: 1) to provide background information of an Indianapolis-based adult day service, 2) to gain knowledge regarding characteristics of person-centered care for older adults, 3) to examine and assess the benefits and challenges to implementation of technology-based intervention and activities, 4) to identify how person-centered care can be strengthened by the use of technologies for older adults with mild cognitive impairment and dementia, and 5) to provide information regarding a specific computer-based system. Compiling evidence from the literature is an essential aspect of determining the need for a specific computer-based system designed to provide therapy, memory care, and activities for older adults with dementia and other cognitive impairments. Databases searched included EBSCO and GoogleScholar. The key words used were *person-centered care, technology, older adults,* and *dementia*.

Adult Day Services

Adult day services offer respite for caregivers of individuals with physical or cognitive impairments. These services allow caregivers the ability to continue to care for their loved ones at home by offering physical, cognitive, and social stimulation for adults who have lost

independence as a result of physical or cognitive impairments. The goal of adult day services is to provide support for these individuals by allowing them access to the community, while also allowing respite for families and caregivers.

A Caring Place is an Indianapolis-based 501(c)(3) non-profit adult day service serving adults over 50 years of age who have dementia, Alzheimer's and/or other neurological conditions, and whose caregivers are employed or desire respite care (Archdiocese of Indianapolis, 2016a). A Caring Place supports caregivers and their loved ones by providing a safe daytime environment for older adults with physical and/or cognitive challenges. A Caring Place is one of many programs operated by Catholic Charities Indianapolis, whose mission statement states, "The staff and volunteers of Catholic Charities Indianapolis are called by the Gospel to uphold the dignity of all people. Guided by Catholic social teaching, we consider it a privilege to deliver compassionate and caring service to help and empower those in need" (Archdiocese of Indianapolis, 2016b).

Person-Centered Care

Person-centered care (PCC) is an essential component to providing quality healthcare, especially for older adults with more complex medical needs. In today's healthcare landscape, services are being shifted from the traditional biomedical model and an emphasis is being placed on providing individualized care based on an individual's unique needs and goals (Li & Porock, 2014). This literature review aimed to explore definitions of PCC and how PCC can improve services provided to the growing population of older adults with cognitive impairments.

Pedlar, Hornibrook, and Haasen (2001) stated that the concept of PCC tends to be described in abstract terms of quality, without specific parameters for the implementation or standards of its use (as cited in Epp, 2003). Thus, the concept remains without a single, agreed-

upon definition throughout the literature, as well as between and within organizations (Kogan, Wilber, & Mosqueda, 2015b). In a systematic literature review conducted by Kogan, Wilber, and Mosqueda (2015b), the six-most frequently cited domains of PCC included holistic care, respect and value, choice, dignity, self-determination, and purposeful living. In this same study, common elements for implementing PCC were found to be care that is coordinated, targeted, team-based, and that places an emphasis on the patient and family experience.

Medical care in the current system does not adequately account for an individual's unique preferences and diverse needs, particularly when the individual in question is an older adult with chronic illnesses and functional limitations (Kogan, Wilber, & Mosqueda, 2015b). Kogan, Wilber, and Mosqueda (2015a) interviewed nine organizations, and all organizations described a lack of financial resources and staffing as challenges affecting feasibility of an organizational commitment to PCC. This is an area of opportunity to improve in community-based practice settings, in which there is a dearth of literature regarding PCC to guide the field. Conversely, several leaders in the aforementioned study stated that their organization's not-for-profit financial structure granted them more flexibility within their practice, allowing them to better meet the needs of their patients and clients (2015a). This is particularly important to note when considering an adult day service that is federally funded, but also receives financial resources from donors, and from organizations offering grant funding. A Caring Place Adult Day Services has a unique opportunity to place an emphasis on PCC as their flexibility allows them to put their money towards enhancing the experience for the individuals they serve.

PCC for individuals with dementia.

The former culture of care for people with dementia tended to reduce dementia to nothing more than a biomedical phenomenon which was task-driven, relied on control techniques

including chemical and physical restraints, and devalued the individuality of the person with dementia (Epp, 2003). In contrast, the new standard for person-centered dementia care is value-driven, independence-focused, emphasizes well-being and empowerment of individuals and their families, and provides autonomy to the person (Epp, 2003). Kitwood (1996) stated that the ethical foundation for PCC is that all people are valued and worthy of respect regardless of their disability, and that all people can live fulfilling lives (as cited in Epp, 2003). Person-centered care should be focused on the whole person, including their remaining abilities and emotions, should account for a person's unique personality, relationships, and life experience, and should consider the individual's wants, needs, and goals (Epp, 2003).

It is evident that positive results and many benefits are derived from the utilization of PCC. A person-centered approach has been associated with improved quality-of-life in individuals with dementia when the care included social activities and past pleasures and activities (Kane, Lum, Cutler, Degenholtz, & Yu, 2007). Similarly, providing individualized activities with respect to each participant's past interests and current capabilities has been found to lead to improvements in nocturnal sleeping and a reduction in daytime napping (Richards, Sullivan, & Phillips, 2001). Another benefit of PCC in the treatment of individuals with dementia is an improved self-esteem and a minimization of anxiety, grief, anger, and the feeling of being a burden to others, which is accomplished when opportunities for self-expression is provided (Epp, 2003).

One key component that underlies an older adult's opportunity for choice, self-determination, and purposeful living is the perception of control. An older adult's active participation in their own well-being relies on the belief that he/she is capable to having some control over their own functioning, making it important to provide opportunities for older adults

to engage in and enhance self-control and decision making (Mallers, Claver, & Lares, 2013). Lachman and Firth (2004) report that well-being can be enhanced through chances to make voluntary choices, and the opportunity to make these choices is positively related to exercise and engagement in leisure activities (as cited in Mallers, Claver & Lares, 2013). Alternatively, lack of choice and self-determination can lead to poor physical fitness, decreased social support, and depression (Krampe, Hautzinger, Ehrenrich, & Kroner-Herwig, 2003). Therefore, interventions to enhance perceived control are especially critical for older adults, given that many inevitable losses and changes are occurring more frequently as one ages. Placing the person at the center and allowing an opportunity for choices can greatly enhance many aspects of an organization's programs, as well as the individual's life and well-being.

Technology's Impact

There are a variety of ways in which person-centered care may be incorporated into adult day services for older adults with cognitive impairments and dementia. At A Caring Place, a variety of activities are completed each day, such as Bingo, adapted bowling, coloring, music time, etc. Participating in recreational and leisure activities throughout the day provides many benefits to older adults with cognitive impairment and dementia, including a greater well-being, positive affect, and decreased use of psychotropic medications (Brooker & Duce, 2000; Volicer, Simard, Pupa, Medrek, & Riordan, 2006). There is also evidence that engaging individuals with dementia in creative processes can have many advantages (Karp, Paillard-Borg, Wang, Silverstein, Winblad, & Fratiglioni, 2006).

An emerging avenue to providing person-entered recreational and leisure activities is through the use of computer-based technology. Many individuals with cognitive impairment and/or dementia might have difficulty engaging in various occupations because of a diminished

desire to participate in an activity or a reduced ability to self-engage (Leuty, Boger, Young, Hoey, & Mihailidis, 2013). Computer-based technology has the potential to assist in overcoming these limitations. In a study that evaluated a specific computer-based device, researchers found that the majority of older adults in the study were excited to use a novel device, and therapists felt that it was a useful tool for engaging their clients in a creative process (Leuty, Boger, Young, Hoey, & Mihailidis, 2013). Upton, Upton, Jones, Jutlla, and Brooker (2011) found that the benefits of using computer-based technology included supporting reminiscence, aiding recall, increasing and improving interpersonal interactions, and improving quality of life via increased interaction and learning opportunities.

It's Never 2 Late Technology.

It's Never 2 Late (iN2L) technology is an example of a computer-based system purposed to help older adults with physical and cognitive disabilities engage in meaningful occupations (It's Never 2 Late, 2017). This system is designed for use with older adults, and includes a prototype interface designed specifically for people with memory impairment/dementia (Lazar, Demiris, & Thompson, 2016). iN2L provides opportunities for various recreational leisure activities, including social involvement, entertainment, physical exercise, and cognitive training. The dementia care interface includes categories such as "reminiscence," "entertain," and "stay connected." The goal of iN2L technology is to provide dignified activities and therapeutic experiences by enabling participation in creative and meaningful occupations (It's Never 2 Late, 2017).

Few studies have been completed thus far regarding the efficacy of iN2L technology and its impact on individuals who use it. However, studies that have been completed have indicated a great potential for positive results. The Green House Project and Mather LifeWays Institute on

Aging (2010) found that as a result of participating in iN2L, the older adult participants were significantly more active, more energetic, demonstrated more social engagement behaviors, expressed more positive emotions, demonstrated greater self-efficacy, and experienced a greater quality of life. In a more recent study, Lazar, Demiris, and Thompson (2016) found that using iN2L with participants allowed staff members to facilitate interactions and learn more about participants, while also providing enjoyment for the participants involved. They concluded that while the system did not directly alter relationships between staff and participants, it provided them with opportunities for interactions, particularly through participants' reminiscence of past experiences.

Theoretical Framework

The theoretical framework guiding this doctoral capstone project is the Canadian Model of Occupational Performance (CMOP). The CMOP is a person-centered framework in which the human spirit is at the center. This model describes the person through physical, cognitive, and affective components bound together by the core of the person, their spirituality (Cole & Tufano, 2008). According to the CMOP, there are six principles of client-centered practice: client autonomy and choice, respect for diversity, therapeutic partnership and shared responsibility, enablement and empowerment, contextual congruence, and accessibility and flexibility. These are similar principles to those mentioned above to describe person-centered care, which included holistic care, respect and value, choice, dignity, self-determination, and purposeful living (Kogan, Wilber, & Mosqueda, 2015b) As previously described, older adults with cognitive impairments can benefit greatly from person-centered care; therefore, the CMOP can help facilitate this care by following these principles. Through this model, occupational performance evolves from the interactions between the person, environment, and occupation (Cole & Tufano,

2008). In the case of this project, remaining person-centered through the use of technology will allow the older adults in the adult day center to access their environment and engage in meaningful occupations.

Project Objectives

Technology has been shown to aid in the implementation of person-centered care for older adults with dementia or other cognitive impairments. iN2L technology can benefit participants at A Caring Place by providing them with opportunities to engage in meaningful occupations, reminiscence therapy, and social interactions. The aim of this project is to obtain grant funding to assist A Caring Place in purchasing multiple iN2L devices, which will help expand the reach of person-centered care for their participants.

Screening and Evaluation

A Caring Place serves older adults with mild cognitive impairment and dementia. Mild cognitive impairment causes cognitive changes, which might cause an individual to forget important information, affect the ability to make sound decisions, judge the time or sequence of steps needed to complete a complex task, and visual perception (Alzheimer's Association, 2018a). Mild cognitive impairment is often less severe than dementia, often marked by at least slight confusion. Alternatively, dementia is an overall term that describes a wide range of symptoms, including impairments in memory, communication and language, ability to focus and pay attention, reasoning and judgment, and visual perception (Alzheimer's Association, 2018b).

There are several cognitive assessments that can be utilized to assess severity of confusion and/or dementia. At A Caring place, a variety of cognitive assessments are used, including The Saint Louis University Mental Status Examination (SLUMS) and the Mental Status Questionnaire (MSQ). Every participant is re-assessed annually using at least one of these

assessments to note potential decline with the progressive disease. The cognitive assessment chosen for each individual participant is based on their payor source and baseline cognitive level. For participants whose payor source is through Veterans' Affairs, the SLUMS is used, as it is a requirement of that department. The SLUMS is able to differentiate patients with dementia from those considered as having cognitive impairment, and also detects mild cognitive impairment in non-demented patients (Szczesniak & Rymaszewska, 2016). Other participants are assessed using the MSQ, which provides a strong predictive relationship to memory without analyzing age, and can be used as a useful tool to measure cognitive abilities in older adults (Welch & West, 1999).

One common problem among older adults, particularly those with marked confusion, is depression, which can cause emotional suffering and an increased risk of physical inactivity (Blazer & Hybels, 2005). A Caring Place utilizes the Geriatric Depression Scale (GDS) to assess whether or not each participant may have depression. A population-based study by Conradsson, Rosendahl, Littbrand, Gustafson, Olofsson, and Lovheim (2013) concluded that the GDS seems to have an overall usefulness to assessing depressive symptoms among older adults.

Informal physical therapy and occupational therapy evaluations are completed based on the participant/family desire to participate in these therapies. Nursing completes vital checks at least once per month for each participant in order to note any significant changes in health status. All staff members are to be observant of each participants' changing behavior, functional decline, and alteration in cognitive status in order to determine if modifications in services are needed.

Participant Assessment

In regard to my particular project focus, the participants will be viewed in terms of the group as a whole. The purpose of the screening and evaluation process in this scenario is to analyze the diversity of cognitive impairment severity, physical function, past experiences, and unique interests among participants. This is completed in order to assist in determining the need for the It's Never 2 Late technology. The severity of cognitive impairment varies greatly at this particular setting. Based upon the most recent cognitive assessments, there were seven participants identified to have probable dementia according to the SLUMS, which was only given to eight participants. According to the MSQ, six participants were slightly confused, eight participants were moderately confused, and six participants were severely confused. Out of 24 total participants, six were found to have probable depression, with four participants unable to answer the questions of the GDS. It is evident that the severity of cognitive impairment among participants at A Caring Place varies tremendously. These participants have varying impairments in their ability to remember important information, complete tasks, communication and language, reasoning and judgment, and visual perception (Alzheimer's Association, 2018a; Alzheimer's Association, 2018b).

Physical function also varies greatly among participants; however, all participants are able to ambulate without the use of a wheelchair and with less than minimum assistance from a staff member. All participants are also able to participate in the daily physical activities offered at A Caring Place (bowling, bag toss, drumming, etc.). Therefore, while some participants are able to complete particular activities more independently, faster, and with better outcomes, all are able to participate in activities, and their physical abilities would not prevent them from engaging with the iN2L technology.

Another aspect that makes an older adult unique is there perspective on their past experiences, interests, and the things that they love. A Caring Place has implemented a "Life Stories" program, in which each individual and their families are interviewed to gain information on these topics. Every participant has their own binder, which includes pictures from their past, stories of their younger days, past and current hobbies and interests, and a description of their family. Many of the participants at A Caring Place have lived all over the country, some have served in wars, others are retired nurses or doctors, and the list goes on and on. Every individual served is one-of-a-kind, making it difficult for every activity to cater to their personal interests. This introduces a need for a program designed to take into account every unique interest in order to provide person-centered care tailored to engage each individual participant in a meaningful occupation (Richards, Sullivan, & Phillips, 2001).

While examining the individuals at A Caring Place as a group of unique individuals, it is apparent that the need and opportunity to provide person-centered care is present when considering the uniqueness of each individual. Person-centered care in this setting should focus on the participants' remaining abilities, unique personality, life experience, and their wants, needs, and goals (Epp, 2003). Providing person-centered care in this way can allow each participant to engage in meaningful occupations designed specifically to address the person as a whole.

Comparison to Other Practice Areas

In this particular community-based setting, the participants are evaluated individually; however, activities and programming are based on the group as a whole, similarly to how this project will be conducted. At A Caring Place Adult Day Services, participants are evaluated in order to provide person-centered care and allowing them access to the community, while also

providing respite for families and caregivers. Adult day services assist participants with physical or cognitive impairments and allow them to remain in their home with caregiver support.

Adult day services differ from medical-based settings such as a skilled nursing facility, in which the screening and evaluation process is completed in order to address training in self-care skills, the use of adaptive equipment, compensatory techniques, and environmental modifications, with the end goal in returning to their prior level of function and living situation (The American Occupational Therapy Association, 2015). A skilled nursing facility assesses the acute changes in function of their clients, as opposed to the changes that happen over time as a person ages. Placement in a skilled nursing facility is often short-term, opposite of that of an adult day service, which could span over the course of several years.

Home health is another area in which the individuals served at A Caring Place might receive services. Home health is provided by occupational therapists with the purpose of keeping a patient in their home, similar to an adult day service. Occupational therapists in this setting might address the patient's ability to care for themselves, manage their home safely, and manage their conditions (The American Occupational Therapy Association, 2013). Home health care and adult day services share the same goal of keeping older adults in their own homes for as long as possible. These two settings differ in their screening and evaluation process, as home health occupational therapists focus on how an older adult functions in their own home.

Adult day services share many common goals of other practice areas focused on the care of common adults, including keeping older adults in their homes for as long as possible. However, adult day services, such as A Caring Place, have a unique perspective and opportunity to provide person-centered care to improve the quality of life and ability to engage with others in the community, while also providing respite to their caregivers.

Program Planning and Implementation

The program planning phase of the doctoral capstone experience is a phase that is intertwined within all other aspects and steps of the project. Plans are constantly changing, new ideas are brought forth, and at times unforeseen circumstances arise and adjustments must be made to the plan. The planning process of this particular project began with the program director's idea to obtain a technology-based device designed to promote person centered care for older adults with dementia and cognitive impairment. Before moving forward with locating funding sources, a needs assessment was completed to determine the need for the It's Never 2 Late (iN2L) technology at A Caring Place for use by older adults with dementia and other cognitive impairments.

The needs assessment included conducting a literature review regarding person-centered care, older adults with dementia and other cognitive impairment, use of technology by individuals with dementia, and the specific iN2L technology. The literature review concluded that the iN2L technology could benefit participants at A Caring Place by providing them with opportunities to engage in meaningful occupations, reminiscence therapy, and social interactions. Participants' cognitive assessments were also retrospectively analyzed, and indicated that the severity of cognitive impairment among participants at this site varies tremendously. The participants' past experiences and interests were examined via viewing of the "Life Stories" binders, which showed that each individual finds meaning in different occupations. After conducting this needs assessment, it became evident that each participant is unique in their cognitive level and the activities that they find to be important. This introduced an opportunity to make a commitment to providing person-centered care, allowing each participant to engage in

meaningful occupations designed specifically for them. Ultimately, the plan became to seek funding for the purchase of iN2L technology through various means.

Before applying for a grant or asking organizations for donations, it is necessary to locate foundations and organizations that could potentially fund the project. For this doctoral capstone project, this step included an extensive online search of various local foundations, consideration of prior contacts of the program director, and exploration of Indianapolis-based technology companies. An essential component to choosing a funding source is ensuring that the interests, priorities, and missions of the funding source closely align with the project's purpose and mission (Wilson, 2011). Once one or multiple funding sources are located, the requirements of each grant-making organization must be examined to determine the necessary components of the grant proposal. The grant proposal should incorporate the grant writer's planning and research, outreach, and understanding of the funder's mission and purpose (Wilson, 2011). The typical core components of a grant proposal include a cover letter, summary, statement of needs, program description, objectives, methods, evaluation, budget, and dissemination (Wilson, 2011).

In regard to this doctoral capstone project, the grant proposal writing process included collaboration with the program director in order to determine the budget, outcome measures, objectives, methods, and dissemination procedures. The statement of need included a summary of information obtained throughout the needs assessment and literature review. The program description section included the specific equipment that the grant funding will help to obtain, as well as an overview of what the technology provides. The objectives and methods sections described what the primary goals for implementation of the iN2L technology are, as well as how this organization plans to implement the technology and accomplish their goals. A timeline was created for A Caring Place to follow in order to successfully implement and sustain the use of the

technology. This included initial training, conducting surveys, submitting data intermittently, participating webinars/trainings, analyzing data, and writing and submitting the final evaluation report. Program evaluation, training, and sustainability details were also included in the grant proposal to demonstrate to funders the plan for maintaining this program effectively. Feasible outcomes to evaluate before and after implementation include overall satisfaction, activity engagement, communication, mood scale, SWOT analysis, and usage reports. Surveys and tools have been developed by iN2L regarding these outcomes and are made available to iN2L customers, which will allow A Caring Place to measure specific outcomes at baseline, mid-point, and/or post-program (It's Never 2 Late, 2016). The budget section of this grant proposal included cost of equipment, content subscriptions, training, shipping/handling, and taxes, with the budget totaling $32,992.00. This grant proposal has been completed, and particular components of the final form have been sent to the Central Indiana Community Foundation (CICF) to explore their interest in providing funding for this technology.

Leadership

When assessing the needs of a particular program, and determining how to address these needs, it is important to demonstrate the leadership skills necessary to effectively plan, develop, organize, and market the proposed project. The development, planning, and implementation processes have been self-directed and have included obtaining information, completing the needs assessment, conducting additional research, and reaching out to funding sources. Collaboration with the program director, coordinator of client services, the occupational therapist, and the physical therapist has also been an essential part of this process. Initiatives to facilitate these collaborative efforts have required communication, teamwork, and interprofessional skills to collaboratively determine the usability and feasibility of the iN2L technology.

The grant proposal writing process necessitates a great deal of advocacy on behalf of A Caring Place and the individuals whom are served by this organization. To effectively advocate to outside foundations and companies, it is essential to communicate in a manner that is concise, understandable, and most importantly – supported by current evidence to benefit the individuals served. While researching the iN2L technology, it became clear that this technology can greatly benefit older adults with dementia and other cognitive impairments. A development in leadership skills in terms of communication was necessary to convey the message of how this technology can improve the lives of participants at A Caring Place to outside organizations.

Staff Development

Several strategies will be put into place in order to promote staff development and to manage staff who will be introduced to this new technology. One such strategy includes an employee training session provided by the company's trainers at iN2L. This will allow all necessary employees to be trained on how to use the technology and how to best utilize it to benefit the participants served (It's Never 2 Late, 2016). It is essential that all staff members who will be managing the program, as well as those who will be interacting directly with the residents, attend the training session provided by iN2L. The staff from A Caring Place who will be required to participate in training include the program director, coordinator of client services, physical therapist, occupational therapist, and participant support leaders. Monthly in-services will be held to introduce new aspects of iN2L to other staff. In-services may be provided by one staff member per month to give other staff the opportunity to learn about parts of the technology that they may have not seen, discovered, or tried yet. In-services may also include opportunities for staff to collaboratively ask questions, troubleshoot issues, and brainstorm ideas for future uses.

Staff education regarding iN2L use is not necessary until the iN2L technology is obtained and introduced at A Caring Place. Once funding is received and iN2L is available for use, the staff can be educated on the benefits of using this technology, how to use it, and how to personalize each participant's individual experience with the program. It is essential that employees understand the importance of remaining person-centered, as that is both the emphasis of the technology and the focus of A Caring Place.

The Occupational Therapy student collaborated with the Program Director at A Caring Place to create a new position on staff, titled "Coordinator of Client Programming." The responsibilities of this position will include planning and designing person-centered activities, supervising participant support staff, planning outings, and assisting in other areas as needed. Once the iN2L technology is introduced at this site, the coordinator of client programming will absorb the new responsibilities it brings. These responsibilities might include training new staff or volunteers, planning person-centered activities, organizing in-services, and ensuring that the technology is used to its full potential.

Outcomes and Discontinuation

This project will not be completed by the end of the Doctoral Capstone Experience; in fact, it will have only just begun. It is imperative that A Caring Place has the tools to effectively evaluate the impact iN2L technology is having on the participants. While it is easy to set lofty goals and give staff outcome tools to measure progress, it is essential that a thorough, detailed plan is provided. Introducing a new technology will add a new aspect to the Activities department. It is important to set a straightforward plan into place that will ease this transition and not add additional responsibility to the staff. Allowing the staff to follow a detailed plan will ensure program sustainability and quality improvement.

Goals and Objectives

A Caring Place has specific goals that the iN2L technology can support. If these goals are achieved, participant experiences can greatly improve, as well as their overall quality of life. The goals of this program are written below, followed by specific objectives that will assist in reaching these overarching goals.

1. Goal 1: Participants will increase engagement in activities provided by the iN2L technology and the activities offered daily by participant support staff.
    a. At least 75% of necessary staff will be trained on iN2L use and benefits within 90 days of iN2L software installation.
    b. Interested participants will engage in individualized/group based spiritual or reminiscent activities using iN2L for at least 30 minutes/week within 120 days of implementation.
    c. Participants will require minimum assistance to engage in daily physical activities using iN2L (e.g. group exercise programs) for 15-30 minutes/day within 150 days of implementation.
    d. iN2L technology will be utilized 75 hours/month, on average, over the course of 12 months.
2. Goal 2: Using iN2L technology, staff will engage participants in person-centered activities, which will improve participants' sense of well-being and increase expression of positive emotions.
    a. Fifteen personalized, digital biographies ("Life Stories") reflecting the participants' preferences, interests, past experiences, and family history will be

created with assistance from staff, volunteers, and family members within six months of implementation.

b. Residents will express an increase in positive (happy/joyful/peaceful) emotion after a 12-month period, as measured on a Likert scale survey given pre-implementation and at six-month intervals.
c. Residents will experience an improvement in mood 75% of the time after engagement in activities offered by the iN2L technology by 12 months.

Outcome Tools

To determine if participant engagement, well-being, and expression of positive emotions have improved, the following tools have been validated by iN2L and will be used to measure progress: Quality of Life Survey, Resident Assessment by Staff Survey, Mood Scale, and Usage Reports. These tools are described further in this section.

The *Quality of Life Survey* measures both the positive and negative emotional status of the individual over the previous two-week period (It's Never 2 Late, 2016). Participants will be aided by staff to complete the surveys and will be assured complete anonymity and confidentiality. The surveys follow a Likert (five-point) scale format. Prior to the installation of the iN2L systems, a baseline survey will be conducted on the key indicators, and will again be conducted during the 6^{th} and 12^{th} months of the project. Responses will then be transferred to the online versions of the surveys by the coordinator of client programming, and iN2L will provide the resulting reports.

The *Resident Assessment by Staff Survey* measures observed activity levels, energy levels, time spent in activities, engagement levels, activities of daily living, cognition, motor skills, mood, irritability level, and relationships (It's Never 2 Late, 2016). The survey follows a

Likert scale format. Participant support staff and other involved staff will complete this survey regarding each individual participant before implementation of iN2L, and at 3-month intervals after implementation. Responses will then be transferred to the online versions of the surveys and iN2L will provide the reports of the results.

Using the *Modified Wong-Baker Facial Grimace Scale*, participants' moods can be assessed before and after each individual iN2L session (It's Never 2 Late, 2016). Participants will rate their mood on a scale of six moods ranging from bright/happy mood to severely unhappy mood. This information will help determine if the iN2L technology boosts individual participant's moods after a session is completed. Responses will then be transferred to the online versions of the surveys and iN2L will provide the reports of the results.

The iN2L system is able to tabulate the number of hours the system has been used and generates Monthly Usage Reports (It's Never 2 Late, 2016). These reports show usage hours per day, the ten most used applications, and the top ten websites visited by the users. iN2L provides these reports by the 10th of each month. Usage reports will allow A Caring Place staff to see how much the staff and participants are utilizing the technology daily and monthly, and make changes to schedules to maximize use.

Quality Improvement & Sustainability

By utilizing the previously described outcome tools, A Caring Place staff will be able to assess the effect that the program is having on the participants' experiences. This information will then allow the staff to determine in which areas changes to the program need to be made to achieve its goals. Staff may be able to focus more attention on the technology with specific participants, ask further questions on what might make the program better, or provide more tailored activities based on the responses provided by the participants. The new position

previously discussed in this paper, the Coordinator of Client Programming, will take on most of the responsibility for quality improvement of this program. This might include training new staff or volunteers, planning person-centered activities, organizing in-services, and ensuring that the technology is used to its fullest potential.

To ensure the program is sustainable, A Caring Place will allocate funds and time to support quality improvement. Once the grant term comes to an end, the iN2L licensing fee will be incorporated into the budget for program supplies. Staff will also take advantage of monthly iN2L refresher webinars – which are held as follows:

1. Level 1: Introduction to iN2L – 1st or 2nd week of the month
2. Level 2: Application Overview – 2nd or 3rd week of the month
3. Level 3: Personalization – 3rd or 4th week of the month

Activities and therapy staff will be required to view Overview Training Videos that reside on the iN2L systems, which demonstrate how the system can enhance music, reminiscence, physical fitness, and sensory activities. These refresher webinars and video trainings will be made available to new staff, volunteers, and other staff who wish to learn more about how to maximize use of the iN2L technology. Staff will also be able to participate in bi-monthly iN2L Content Update webinars. To reinforce the benefits of the project as it goes into its second year and to ensure sustainability, an On-site Refresher Training conducted by an iN2L trainer will take place between the 10th and 12th months of the project.

Monthly in-services will be held at A Caring Place in which one staff member each month may educate other staff on various aspects of the technology. In-services may also include opportunities for the staff to ask questions, troubleshoot problems, and collaboratively brainstorm ideas for future activities utilizing iN2L. A Caring Place will also participate in

quarterly Best-Practices Group Calls facilitated by iN2L account managers. These forums will allow staff to find solutions to challenges that may be encountered, continuously identify and motivate project champions, and share stories of success.

Response to Changing Needs

As previously stated throughout the literature review, there is a new standard of care for older adults living with dementia. The former medical model was task-driven, relied on control techniques including chemical and physical restraints, and devalued the individuality of the person (Epp, 2003). The new standard of care is person-centered, value-driven, independence-focused, emphasizes well-being, and provides autonomy to the person (Epp, 2003). It is well known that the population of older adults is growing, thus the number of individuals living with dementia and other cognitive impairment continues to rise (U.S. Department of Health and Human Services, 2015). It is essential to explore methods designed to engage these individuals in meaningful activities despite cognitive and physical decline.

An innovative portal to provide an opportunity of engagement for older adults with dementia is through the use of the iN2L technology. The goal of iN2L technology is to provide dignified activities and therapeutic experiences by enabling participation in creative and meaningful occupations (It's Never 2 Late, 2018). This system is designed to enable person-centered care by providing individual user buttons that can be populated with content and activities that match the interests and needs of each resident. With the iN2L technology, A Caring Place will be able to reach and provide personalized life-enriching, re-engaging, and redirecting activities to more participants than ever before.

Communication

When engaging with the participants at A Caring Place, I have been able to communicate with them effectively by being empathetic, non-judgmental, and person-centered. I have used nonverbal communication to show that I am happy to see them and that I enjoy their company. The participants vary on their levels of confusion and cognitive functioning, so it has been essential to meet each participant where they are, and not expect the same interactions and engagement from them all. By communicating with the participants in an empathetic, non-judgmental, person-centered manner, I have been able to build rapport and establish a relationship with each one of them. I have not had many opportunities to interact with the participants' families; however, when I do get an opportunity, I do my best to convey that their loved one is wanted and cared for at A Caring Place.

When interacting with people in the community, such as volunteers, I have also been able to remain professional. It is important that volunteers know that they are appreciated and that their generosity does not go unnoticed. I make it a point to make sure that each volunteer knows what their role is while they are here, and to thank them for their time when they leave.

I am often in communication with the staff here, including the program director, coordinator of client services, nurse, physical therapist, occupational therapist, and kitchen aide. I have been able to communicate professionally by remaining HIPAA compliant, using person-first language, and avoiding engagement in negative conversation. It seems that in every organization, there is at least one employee who is disagreeable, questions the status quo, and sees the negative in every situation. I have found that it is best to avoid promoting this behavior, so I tend to offer alternative perspectives or not participate in a conversation at all. A negative attitude within a team of employees tends to spread quickly, and this does not make the work day

pleasant for anyone. I believe I have successfully remained positive with all of my colleagues throughout this experience.

Lessons Learned

Throughout this Doctoral Capstone Experience, I have learned so much from my colleagues, the volunteers, and the participants at A Caring Place. I have also learned many things about myself. It has been important to keep an open mind throughout this process and remain flexible to learning new things and engaging in every opportunity available. By doing so, I have been able to get as much out of this experience as I could.

I have gained a great deal of empathy throughout this experience. The more time I spend with older adults, individuals with dementia, and people from different backgrounds, the more I am able to place myself in their shoes and imagine the journey they are going through. I believe developing empathy for all people is an essential aspect to being an effective occupational therapist. Being able to empathize with my clients, no matter who they are, will allow me to develop more person-centered interventions while considering all physical, cognitive, and psychosocial aspects of the person. Being empathetic means that I do not pass judgment on others' situations, and instead attempt to consider the circumstances that impact their life. By being nonjudgmental and empathetic, establishing rapport becomes much simpler. When considering what a person might be going through, it becomes easier to ask the necessary questions and build trust. I truly believe that empathy is one of the most important qualities that an occupational therapist can possess, so I am grateful that this experience has allowed me to grow in this area.

I have also learned about the day-to-day details, as well as big picture aspects, of managing a non-profit adult day service. Every day is different, with new difficulties arising

frequently. It is important to be able to problem solve through minor issues before they become a larger issues for all staff. I have learned and participated in the grant writing process and have also learned about requirements that some funders have regarding how to utilize busses, vans, and staff members that are paid for by a grant. I have been exposed to care plans, Medicare/Medicaid funding, billing, case management, and documentation. I have learned that to successfully manage a non-profit, the saying "it takes a village" is very true. It takes a collaborative team of staff, volunteers, and community members to ensure that a non-profit community-based organization is successful. Experience in these areas will assist me in future practice by giving me background knowledge in these areas and will help me analyze organizations as a whole, and not just the parts affecting me directly.

I have been taught many things by my site mentor, other staff, and participants while at A Caring Place. Through this educational experience, I have also learned many things about myself. I have learned what kind of leader and manager I aspire to be in the future. I am uncertain if a management role is one that I would be willing to take on soon; however, I am confident in knowing what skills and qualities make a great leader. I want to be a leader that is willing and able to do the little day to day things. I want to have open lines of communication with those I lead. Communicating effectively with others will help to build trust and will also help to encourage employees to bring any concerns to me without fear of negative consequences. I have been an employee of many different bosses, supervisors, and managers, and I think how a leader treats their employees is what makes or breaks a leader's ability to effectively lead. It is important to praise employees for what they are doing well, and to consider what might be contributing factors to poor performance. Just as it is a priority to remain person-centered with clients, it is also a strategy to use when leading employees. When addressing employee issues,

that employee's background, psychosocial, and occupational factors should be considered. A bad leader can not only negatively impact their employees, but also the clients those employees treat. A great leader can positively impact their employees, which can promote better care for the individuals they serve.

Overall, I am thankful for this experience and the lessons I have learned throughout these sixteen weeks. I have been exposed to many things and now have a glimpse into the experience of working for or managing a non-profit organization. I am hopeful that I can use the skills and knowledge I have gained throughout this experience during my job search and in the coming years as a practitioner.

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