2014

A Community Grant Application to Support People with Dementia and Their Caregivers

Jessica Montomery
University of North Dakota

A COMMUNITY GRANT APPLICATION TO SUPPORT PEOPLE WITH DEMENTIA AND THEIR CAREGIVERS

by

Jessica Montgomery, MOT/S

Advisor: Sclinda Janssen, PhD, OTR/L

A Scholarly Project

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master's of Occupational Therapy

Grand Forks, North Dakota
May 2014

This Scholarly Project Paper, submitted by Jessica Montgomery, MOT/S in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom work has been done and is hereby approved.

_____

Faculty Advisor

_____

Date

PERMISSION

Title: A Community Grant Application to Support People with Dementia and their Caregivers

Department: Occupational Therapy

Degree: Master's of Occupational Therapy

In presenting this Scholarly Project in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the Department of Occupational Therapy shall make it feely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my work or, in her absence, by the Chairperson of the Department. It is understood that any copying or publication or other use of this Scholarly Project or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and the University of North Dakota in any scholarly use which may be made of any material in our Scholarly Project.

Signature Jessica Montgomery MOTS Date April 16, 2014

TABLE OF CONTENTS

LIST OF FIGURES

Figure Page

LIST OF TABLES

Table Page

ACKNOWLEDGEMENTS

The author would like to thank her advisor Sclinda Janssen from her continued and steadfast support and guidance throughout this process and her contribution of her considerable professional knowledge and experience during the development in this scholarly project. The author would also like to thank her family, friends, classmates, and faculty for their continued encouragement and support throughout this wonderful journey.

ABSTRACT

In upcoming years, the population of older adults with dementia is expected to rise exponentially, with the expectation that the majority of these individuals will choose to age in place with increased caregiver support (AARP, 2011; National Alliance for Caregiving, 2009; Vincent & Velkoff, 2010). Without adequate education to prepare for the caregiving role, education, instruction, and support, informal caregivers are at an increased risk for caregiving burden, stress, and mortality rates (Morimoto, Schreiner, & Asano, 2003; Schulz & Beach, 1999; Thinnes & Padilla, 2011). The goal for this scholarly project was to create a home and community-based program for people with dementia and their caregivers to promote health and wellness. Caregiver interventions, such as education regarding the disease process, coping strategies, stress management techniques, and referral to community resources can reduce caregiver burden and strain while improving positive caregiving outcomes (Clark et al., 2011; Pizzi, 2010; Letts et al., 2011; Thinnes & Padilla, 2011). The core concepts of the Social Ecological Model of Health (SEMH), Ecology of Human Performance (EHP), and Cognitive Disabilities Reconsidered Model (CDRM) were integrated throughout the entire scholarly project (Dunn, Brown, & McGuigan, 1994; Levy & Burns, 2011; Lemyre & Orpana, 2002; Reitz, Scaffa, Campbell, & Rhynders, 2010). The resulting product was a grant application for a home and community-based service program for people with dementia and their informal caregivers. The intent of this program is to provide a holistic set of interventions, resources, and support through a multidisciplinary team.

CHAPTER I

INTRODUCTION

The population of older adults in the United States is expected to rise dramatically in the coming decades to almost 80 million adults aged 65 years and older and approximately 14 million adults over the age of 85 (U.S. Department of Health and Human Services, 2012; Vincent & Velkoff, 2010). With the increase in this population comes the expectation that the majority of older adults will choose to age in place in the community, even if additional help and support is necessary to remain at home safely (AARP, 2011). There will be a greater reliance on informal caregivers to provide in-home care and support to older adults; however, serious issues can arise if the informal caregiver is not appropriately prepared for and supported in their caregiving role. Schulz and Beach (1999) assert that with increased caregiver strain, such as emotional and physical strain, caregivers have a 63% greater risk of mortality. To assist in reducing this disquieting statistic, a grant-funded community-based and home program intended to support informal caregivers and older adults with dementia is proposed in this scholarly project.

Problem

The National Alliance for Caregiving (NAC) indicated that almost 50 million individuals were informal caregivers to adults (NAC, 2009). It is anticipated that the number of informal caregivers will continue to increase as the population of older adults

in the United States rises. With the increase in dependence on informal caregivers comes the need for stronger community support for these individuals. Approximately 35% of informal caregivers consider their overall personal health to be poor to fair (Family Caregiver Alliance [FCA], 2012; Feinburg, Reinhard, Houser, & Choula, 2011), and a lack of training and support can increase caregiver strain (Schulz & Beach, 1999). The proposed grant-funded program is intended to directly address this significant problem through professional support and holistic interventions to promote health and wellness.

Literature

Research and literature was utilized throughout the entire scholarly project to provide evidence to justify the need for and to guide the proposed grant-funded program. As the population of older adults rises, so will the need for increased numbers of informal caregivers to provide continued care and support (AARP, 2011; U.S. Department of Health and Human Services, 2012; Vincent & Velkoff, 2010). Northouse, Katapodi, Song, Zhang, and Wood (2010) note that informal caregivers are often provided with limited education, resources, and support to prepare for their caregiving role. If the informal caregivers are not adequately prepared for and supported in their caregiving role, they are at increased risk for caregiver burden, strain, and higher mortality rates (Pinquart and Sörenson, 2003; Schulz & Beach, 1999). Thinnes and Padilla (2011) describe caregiver interventions such as education about the disease process, referral to community services and resources, and stress management techniques as ways to reduce caregiver burden. Letts et al. (2011) assert that caregiver interventions enhance positive outcomes and quality of life for caregivers and care receivers. Pizzi (2010) recommends

incorporating caregiver interventions into the occupational therapy (OT) treatment plan to promote improved health and wellness.

Theory

Three professional models were used to guide the development of the proposed grant-funded program, with the core concepts of each model integrated into the product. The Social Ecological Model of Health (SEMH) offers a broad viewpoint of populations, uses general professional concepts and terminology, and is easily applicable to different disciplines (Lemyre & Orpana, 2002; Reitz, Scaffa, Campbell, & Rhynders, 2010). The Ecology of Human Performance (EHP) greatly considers the interactions between the person, context, and performance in addition to providing a detailed set of interventions intended to promote health (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). The Cognitive Disabilities Model Reconsidered (CDMR) gives a detailed framework to guide the different levels of cognition and cognitive performance (Levy & Burns, 2011). These three models were chosen for the proposed program since they have core concepts that are compatible with multiple disciplines, have a strong emphasis on health and wellness promotion instead of a focus on disabilities, and consider the cognitive functioning and performance of individuals with dementia.

Summary

The great projected increase in the number of older adults aging in place comes with anticipated issues such as a heavier reliance on informal caregivers who are often untrained and unprepared for their role. This greater dependence on informal caregivers who are untrained and unprepared for this role may lead to poorer health and increased rates of mortality among informal caregivers. To address this issue, a home and

community-based grant-funded program is proposed to support and promote health and wellness in informal caregivers and individuals with dementia.

This chapter provided an overview of the problem, the purpose for this project, and the evidence-based models utilized to guide the project. The subsequent chapters provide detailed information regarding the development of this product. Chapter II describes the evidence-based research utilized to identify and justify the need for the product. Chapter III details the methodology procedures used for gathering and organizing the research to develop the product. Chapter IV is the product itself, a grant application for creating a sustainable home and community-based program for people with dementia and their caregivers. Chapter V summarizes the primary points of the entire scholarly project, provides a personal self-reflection of the process, and offers recommendations for continuation with the proposed program.

CHAPTER II

LITERATURE REVIEW

In upcoming decades, the population of older adults aged 65 years and older is expected to increase exponentially (Vincent & Velkoff, 2010); specifically, in 2040 the number of older adults aged 65 years and older is predicted to rise to 79.7 million and the amount of older adults aged 85 years and older is anticipated to rise to 14.1 million (U.S. Department of Health and Human Services, 2012). According to AARP (2011), 88% of older adults prefer to age in place, even if additional assistance is required to complete the activities of daily living needed to stay in the home. With this desire to age in place comes a need for more in-home caregiving as older adults develop age-associated changes that limit their functional abilities. Informal caregivers are usually family members who are not trained in or reimbursed for care services. Due to the high demand for caregiving, informal caregivers often experience compromised health themselves. The 2009 executive summary on caregiving from the National Alliance for Caregiving (NAC) showed that 48.9 million individuals in the United States were uncompensated informal caregivers to adults, and there is a greater likelihood that the reliance on informal caregivers will increase as a higher number of older adults choose to age in place (NAC, 2009). For caregivers, it is estimated that 17-35% of informal caregivers perceive their personal health to be fair to poor (Family Caregiver Alliance [FCA], 2012; Feinburg,

Reinhard, Houser, & Choula, 2011). Occupational therapy's (OT) current role in home care settings can include client and caregiver education, home and environment modifications, management of chronic diseases, and addressing occupational performance to improve health and wellness (Craig, 2012). This literature review will identify OT's role in promoting health and wellness of the informal caregiver to benefit the client in a home care setting.

Caregiving Trends

To understand demands placed upon informal caregivers, it is important to first examine trends occurring with formal home care services. Home health care is projected to be the fastest growing area of any industry, with an estimated 6.1% per year growth within the next decade (Henderson, 2012). Home health care services can be provided by a variety of healthcare professionals in the community, including OTs, occupational therapy assistants (OTAs), registered nurses, home health aides, physical therapists, and more (Bureau of Labor Statistics, 2012). Responsibilities of practitioners in the home care setting vary depending on the profession, but can typically include services and assistance for activities of daily living, provision of durable medical equipment, client and caregiver interventions, nursing care, and therapy services (Gershon et al., n.d.). The need for more home care services is going to become a primary issue, as a higher number of older adults will be looking to home health services to take care of their needs as they age in place.

Home Care Practice

OT's uniquely broad scope of practice offers practitioners an opportunity to work with clients and caregivers in the home setting. OTs focus on the client's ability to

participate in their daily occupations and the impact of their participation on their health and well-being (Toto, 2006). In addition to providing client interventions, the OT can address the needs of the caregiver or family members; interventions such as caregiver education, emotional regulation support, and advocacy for resources can prove to be beneficial not only to the caregiver but also to the client (Toto, 2006).

Challenges in Home Care

The challenge in implementing OT in home health practice lies not within the scope of the profession's practice but rather with what the professional does within their role in home health care. Craig (2012) determined that OT can address a wide range of needs in home health settings and can offer well-rounded interventions such as caregiver education and interventions, home and environment modifications for safety, participation in ADLs and IADLs, and advocacy.

Kunstaetter (1988) identified that documentation in home health care is often not consistent with the treatment being provided—for example, often the treatments that are more easily reimbursable were documented versus treatments that were not reimbursable, such as education or addressing psychosocial components like coping skills. Medicare is known to be a primary payer of home health care services. In 2011, approximately $18.4 billion dollars were spent on home healthcare services and 3.4 million Medicare recipients received home health care (Medicare Payment Advisory Commission [MedPac], 2013). Currently, therapy services in home health are paid for by the number of visits; therefore, if there is an increase in therapy visits then the payments are raised. This may have an impact on how many times an OT works with a home health client or what interventions they can provide. If there is a stronger focus from OTs on providing

quality services that are reimbursable within the home health care sector, the opportunities for providing holistic and client-centered interventions to the client and their caregiver is likely to be greatly reduced.

Challenge in Meeting Caregiver Need

An additional challenge that is seen within OT in home care is the general lack of interventions that are tailored to the caregiver. A review of the literature surrounding OT and home health services do not typically mention caregiver interventions unless it is a concept that is specifically searched for. Studies have shown the quality of life of informal caregivers can be acutely affected by the disease or disability that impacts the care receiver (Bishop et al., 2007; Given, Given, & Kozachik, 2001). A meta-analysis from Northouse, Katapodi, Song, Zhang, and Wood (2010) showed that while informal caregivers of cancer patients received a minimal amount of support or education to their caregiving role, they were expected fulfill these roles while maintaining their own health and wellness. Interventions were found to be primarily tailored to meeting the needs of the care recipient, with little to no attention focused on the caregivers and their needs. It was determined providing ideal, holistic care includes incorporating and addressing the physical and mental well-being of caregivers in addition to providing interventions for the patient (Northouse et al., 2010). It was especially noted that interventions could have a significant impact in preparing caregivers for their role and reducing their stresses related to caregiving, which will have a positive impact on the patient (Northouse et al., 2010). This concept is also confirmed by Pizzi (2010), who determined that caregiver interventions provide the opportunity to improve the health and wellness of both the

caregiver and the client. Craig (2012) proposed that OT in home care should incorporate more caregiver interventions in all aspects of practice.

The Center for Health Workforce Studies (2012) identified that within the health care sector, home health care is projected to increase the number of jobs from 1,080.6 in 2010 to 1952.4 in 2020, showing an overwhelming 871.8% increase in the amount of healthcare professionals working in home health care. With more older adults preferring to age in place, a rise in dependence on informal caregivers to provide care, and an increased usage of home health care services, it is clear that there is a need for home care to provide holistic and client-centered care to not only the client but to the caregivers to promote a higher quality of life.

It is anticipated that there will be an increase of reliance on informal caregivers to provide assistance and care with the rise in number of older adults opting to age in place and receive healthcare services inside their homes. The FCA identified an *informal caregiver* as an individual who is not financially compensated for their care, such as family members, close friends, or neighbors (FCA, 2012). Caregiving tasks often include assistance with various activities of daily living, such as dressing or eating, or medical activities, such as taking medications or attending doctor's appointments. While informal caregivers are not paid for their care and services, they are an irreplaceable component of home care. Feinburg et al. (2011) estimated the value of caregiving services for adults in 2009 to be equal to $450 billion; this great estimated amount exceeds the total estimate of Medicaid spending in 2009. While this estimate does not include caregiving services for adults who have chronic diseases or disabilities that inhibit their ability to participation in activities of daily living (ADLs) or instrumental activities of daily living (IADLs), it

shows that informal caregiving is highly valuable, needed, and utilized within the United States.

Informal caregivers provide perhaps the strongest support to clients and often feel a responsibility to take on the role of a caregiver when a loved one is in a time of need (Feinburg et al., 2011). If more clients with complex and chronic diseases, disabilities and diverse level of functioning choose to receive care at home, the physical and psychological strain of caregiving is going to need to be addressed more strongly. Talley and Crews (2007) specified the importance of considering the increasingly complex needs of both the caregiver and the care receiver in home health and stated informal caregiving to be an emerging public health issue.

There is also an issue of greater ethnic diversity among older adults who may receive home care (Feinburg et al., 2011; Vincent & Velkoff, 2010). Vincent and Velkoff (2010) described a vastly older American population in 2050, noting that it is anticipated that approximately 88.5 million Americans will be 65 years of age or older. Within this population, it is also expected that the ethnic and racial structure of this population will vary greatly to reflect a more diverse population (Vincent & Velkoff, 2010). These changes in the population indicate the importance of offering broad and holistic home care services to clients and may become a primary issue in upcoming years if these different needs are not met.

Impact of Caregiving on Informal Caregivers

With increased demands placed on informal caregivers comes decreased health and wellness of caregivers. Pinquart and Sörenson (2003) reported that the act of caregiving leads to higher rates of stress and depression as well as lower rates of physical

health, self-efficacy, and subjective well-being in caregivers, particularly when compared to non-caregivers. The authors determined that the caregivers' stress, depression, self-efficacy, and subjective well-being were more affected than physical health because of the complex and difficult tasks in the caregiver role, which in turn erode the sense of self-assurance and capability in the caregiver (Pinquart & Sörenson, 2003). Robison, Fortinsky, Kleppinger, Shugrue, and Porter (2009) asserted that while the occupation of caregiving does not necessarily create a negative impact on the caregiver, there are clearly negative outcomes linked to caregiving; within these outcomes, lack of long-term support from formal community programs was identified as a primary indicator. Morimoto, Schreiner, and Asano (2003) discovered that increased caregiver burden has a great link to reduced quality of life, especially mental health, among caregivers. Thinnes and Padilla (2011) noted that caregivers are especially at an increased risk for depression and illnesses, and this risk increases if they lack support from others. The authors soundly stated that interventions and services that take into account the caregiver's level of stress and burden when working with the patient ultimately serve to reduce caregiver burden and improve self-efficacy (Thinnes & Padilla, 2011).

Solutions

With the need for home care services and informal caregivers growing, OT is in a prime position to offer a broader range of services to clients and caregivers in home health to provide client-centered care. OT has been part of the home health care realm for several decades in the United States, typically offering interventions focused on remediating skills needed for ADLs such as dressing, bathing, or toileting **(**Craig, 2012; Siebert & Vance, 2013**)**. Interventions have also previously focused on concepts such as

modifying the physical environment of the home to promote health, provision of medical equipment or assistive devices, or medication management. Even with the slow increase of awareness of caregiver need, OT in home health care does not have a definite role in working with the caregiver. The OT practice framework's (American Occupational Therapy Association [AOTA], 2008) broad definition of *client* includes persons such as patients, caregivers, organizations, and populations. Furthermore, *caregiving* is defined as a co-occupation that takes into account the role of the caregiver and the care recipient (AOTA, 2008).

Gupta, Chandler, and Toto (n.d.) recently created a fact sheet for AOTA that outlined the role of OT in health promotion. Health promotion has been identified as a preemptive strategy that can enable individuals to better manage their health and ultimately enhance their quality of life and well-being. The OT practice framework (AOTA, 2008) specifically acknowledges health promotion as an intervention approach that does not presume a disability or disease is present that inhibits participation in occupations. Using this approach, OTs create interventions that center on refining performance skills, strategies to improve everyday functioning, and offering everyone the opportunity to participate in meaningful occupations that enhance their health and well-being (AOTA, 2008). Clark et al. (2011) determined that interventions that enabled participation in occupations held a role in improving the self-perceptions of physical and mental well-being. Additionally, the interventions were shown to be cost-effective when compared to other treatment options (Clark et al., 2001), and the authors concluded that OT interventions focused on lifestyle were effective in enhancing mental and physical health.

The use of occupations to promote health among clients is used frequently as an intervention strategy by OTs. Letts et al. (2011) proposed a study that used interventions as a means to promote enhanced outcomes in client and caregiver satisfaction, health, and well-being; the results of this study indicated that the use of occupational interventions provided positive outcomes and improved quality of life for clients and caregivers. With interventions shown to improve health and wellness outcomes in patients, there is a need to focus health promotion interventions on more than just the typical patient. Pizzi (2010) suggested a shift in thinking that would identify the caregiver or the entire family as the client to assist in promoting health and wellness. The OT practice framework (AOTA, 2008) echoes this sentiment by identifying the *person* as either an individual such as a patient or caregiver. With the expected rise of individuals wishing to age in place, the increased use of home care services, and the stronger reliance on informal caregivers, it is clear that the caregivers and their needs should be addressed in addition to the client. The level of caregiver burden, physical, and mental health are just a few concepts that need to be considered when working with clients and their caregivers (Pizzi, 2010). Addressing the needs of the caregivers can be essential to not only promote health and wellness within their own lives, but can also positively impact the clients. The caregiver is the one who often provides the most care and assistance to clients and through addressing their needs, the likelihood of enabling positive health outcomes for the client may increase.

In spite OT's potential to work more closely with caregivers, much of the research in current literature in home health care is dedicated to clients and their intervention outcomes only. Previously outlined research has shown that OT has the potential to address the needs of the caregiver more closely to improve both caregiver and client

outcomes. According to the OT practice framework (AOTA, 2008), OTs can be part of the educational process to increase the caregiver's knowledge on the disease process, resources available, and more. OTs can also advocate for the caregiver's needs, such as access to respite care services or caregiver resources in the community.

A solution is needed to meet the growing needs of the older adult population who will be choosing to use informal caregivers and receive more home health care services to age in place. The impacts of caregiving, both positive and negative, will also rise with the incidence of higher reliance on informal caregivers. Consequently, it would be beneficial to both the caregiver and the client to additionally work with the caregiver to promote health and wellness. OT has a unique, holistic scope of practice that can meet the needs and demands of caregivers to promote engagement in meaningful occupations that will ultimately enhance their caregiving abilities, health, well-being, and quality of life. As Pizzi (2010) noted, addressing the needs of this emerging population has an opportunity to improve the quality of life of both the clients and caregivers, thus promoting better health and wellness.

Model for Practice

The use of models in practice helps ensure that OTs are prepared and directed with general guidelines that emphasize client-centered, holistic care. In the home health setting, it is important to use a model to guide practice that takes into consideration the context of the individual and the impact of the context on occupational participation and performance. Additionally, it is essential to choose a model that works well within an interdisciplinary team to promote collaboration among all professionals working with the client.

The model chosen to guide this scholarly project is the Ecology of Human Performance (EHP) model. This model encompasses the entire person and their context, and the environment is considered to be a key context that influences human performance (Cole & Tufano, 2008; Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). The authors identified that the model is focused on the interactions between the person and their contexts, and the impact of these interactions on performance (Dunn, Brown, & Youngstrom, 2003). While the model does not use OT-centered language throughout, its core concepts are strongly aligned with the values of the profession. The model is also intended to promote collaboration among disciplines (Dunn, Brown, & Youngstrom, 2003), which is a feature that is essential in home care, where OTs will be working with various disciplines often to meet the needs of the client. With its central focus on context and performance across the lifespan, this model also easily addresses the promotion of health and wellness, as there is a lack of assumption of disease or disability (Reitz, Scaffa, & Pizzi, 2010).

The EHP model is comprised of four core concepts: person, task, context, and performance. This model views the person as a complex being that is comprised of *person variables*, or the values, interests, experiences, and skills that make each individual unique (Dunn, Brown, & Youngstrom, 2003). These variables have a strong impact on the tasks a person chooses as well as the performance within these tasks. The *task* is defined as a group of behaviors that, when combined, give the person an opportunity to perform to achieve a specific goal (Dunn, Brown, & Youngstrom, 2003). An individual may have many tasks they can take part in, but the accessibility of the task depends on task demands, person variables, and availability of the task. The precise

behaviors required to meet the task demands, the person variables that determine the appropriateness and ease of the task, and the availability of the task within the person's context all have a role in determining what tasks the person performs in (Dunn, Brown, & Youngstrom, 2003). Tasks can be part of a broad set of behaviors to complete a goal, such as cooking a meal, or part of a smaller set of behaviors in a sub-goal to complete a goal, such as all the steps performed when grating cheese. Dunn, Brown, and Youngstrom (2003) define *context* as the collection of connected circumstances that encompass the person. The *temporal context* includes personal variables such as life stages and chronological age and *environmental context* includes the person's physical, cultural, and social contexts (Dunn, Brown, & Youngstrom, 2003). The authors of the model assert that the interaction between the person and their contexts influence both their behaviors and their performance. Thus, performance in tasks cannot be analyzed separately from the context, as it has such a vital role in performance (Dunn, Brown, & Youngstrom, 2003). *Performance* is defined as the engagement of tasks within a context and includes a *performance range*, or the amount and variety of tasks available to the person. The performance range is defined by the relationship between the different variables of the person and context (Dunn, Brown, & Youngstrom, 2003).

In addition to offering the four core constructs to view the client, Dunn, Brown, and Youngstrom (2003) also identified intervention strategies within the model that allow the practitioner to address the various and unique needs of the client. The five intervention strategies composed within the EHP model include establish/restore, alter, adapt/modify, prevent, and create (Cole & Tufano, 2008; Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). Throughout all of these interventions,

continuous analysis of the context and its impact on performance is a vital component of the model. When using *establish/restore,* intervention strategies are intended to remediate and expand the person's variables and skills. The *alter* intervention strategy allows the practitioner to examine the context where performance in tasks occur, and interventions are intended to alter the context. Finding the appropriate fit between the person and context variables are key to ensuring performance in tasks (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). The *adapt/modify* strategy is utilized to change the context for the task demands or to support performance. *Prevention* is an intervention strategy used before the advent of problems within the performance or contexts to avert undesirable outcomes (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). The *create* intervention strategy is intended to provide contexts and conditions that promote and support ideal performance; this strategy is aimed for both individual clients and populations alike (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003).

The concepts inherent within the EHP model allow it to be a valuable model in supporting health promotion in home health practice, as it does not place a central focus on disabilities or diseases but rather on how one lives and performs within their contexts. Reitz, Scaffa, and Pizzi (2010) determined that the intervention strategies of the model were very applicable to the standards of health promotion and prevention at both an individual and community level.

Occupational Therapy Evaluations

In recent years, a stronger focus has been directed towards meeting the caregiver needs in addition to what the client needs. With a greater focus for interventions for

informal caregivers comes a higher need for evaluation tools to assess health, wellness, and quality of life in caregivers. The World Health Organization Quality of Life checklist (WHOQOL-BREF) is one such evaluation tool that examines one's quality of life, life satisfaction, subjective reports of physical pain, participation in meaningful occupations, cognitive performance, interactions with the environment, sleeping patterns, functional mobility, and the impact of interpersonal relationships (World Health Organization [WHO], 2004). This quality of life measure is aligned with the core values and concepts of the EHP and its consideration of the interactions between the individual, their environment, and occupational performance. Additional evaluation tools that assess the health and quality of life of an individual include the Short Form (SF)-36. This assessment looks at the quality of life an individual through subjective reports of both physical and mental well-being, participation in meaningful, active occupations, and pain and its impact on occupational performance (Ware, Jr., & Kosinski, 2001). Combined, these evaluation tools allow for greater assessment of the health, wellness, and quality of life of the caregiver while following the key concepts and values from the EHP, namely the person, task, and performance. The information gathered from these evaluation tools will be utilized to create and provide caregiver interventions that are focused on enhancing and promoting health and wellness.

Occupational Therapy Interventions

It is suggested that, under the EHP model, various types of interventions can be created to facilitate improvement in caregiver and client outcomes. Caregiving can have an impact on the physical and psychological functioning of the caregiver, including mental distress, depression, anxiety, social functioning, perceptions of caregiver burden,

and more (Morimoto et al., 2003; Robison et al., 2009; Thinnes & Padilla, 2011). OTs can use a collaborative approach with the caregivers to determine their perspectives on caregiving and what needs they have to enhance their role as a caregiver (Toth-Cohen, 2000). OT programs, groups, or workshops can be created that offer education, resources, and physical or psychological support to caregivers. The use of the EHP model can ensure that the OT interventions are client-centered and focused on promoting health and wellness through the five intervention strategies. Caregiver interventions include a variety of strategies and techniques aimed to enhance the caregiver's ability while reducing the strain of their caregiving role.

Common and interventions that can be offered to caregivers include pyschoeducation interventions (Sörenson, Pinquart, Habil, & Duberstein, 2002). Psychoeducational interventions provide information and education about the disease process of the care receiver as well as caregiver training to more effectively manage the issues and behaviors caused by the disease (Sörenson et al., 2002). Educational and supportive interventions engage the informal caregiver in problem-solving activities, coping strategies, and caregiver training to provide professional support, reduce caregiver burden, and enhance self-efficacy and sense of competence in the caregiving role (Graff et al., 2006; Lee, Soeken, & Picot, 2007; Thinnes & Padilla, 2011). Stress management interventions offer the informal caregiver education and training for concepts such as problem-solving, coping, and improving self-esteem to reduce stress and strain associated with increased caregiver burden (López, Crespo, & Zarit, 2007). Yoga and meditation interventions provide informal caregivers with the opportunity to engage in active and meaningful occupations to reduce caregiver burden and stress while promoting physical

and mental health and wellness (Waelde, Thompson, & Gallagher-Thompson, 2004). These various types of interventions have shown efficacy in improving caregiver outcomes, such as reducing caregiver burden, increasing caregiver education, and enhancing the caregiver's physical and/or mental health.

Scholarly Project

Thus far, the literature on OT has shown that therapeutic interventions are typically directed towards clients. Likewise, the research that has been focused on caregivers has shown that caregiver interventions have the great potential to improve caregiver outcomes, which is projected to also have a positive impact on the client (Graff et al., 2006; Hasselkus & Murray, 2007). This scholarly project is projected to meet the needs of informal caregivers in home health settings by offering OT interventions intended to promote health and wellness. The use of the EHP model is meant to create and offer OT interventions that are specifically tailored to health promotion—through prevention, creation, alteration, adaptation/modification, and/or establish/restoration. The interventions identified in this scholarly project may include caregiver support groups that offer education, resources, and psychological support, workshops that offer education, resources, and interventions to caregivers, workshops that offer education, resources, and interventions to occupational therapists working in home health, or a guide for health promotion of informal caregivers in home health practice.

With an increased reliance on informal caregivers in home care settings to provide care to clients, it will become even more important to ensure that the caregivers are considered a vital part of the therapeutic process. Making certain that the needs of the caregiver are being addressed to improve the impact of caregiving and improving

caregiver outcomes will ensure that the client is being provided with optimal informal and formal care.

Summary

In upcoming years, as the population of older adults over the age of 65 years is expected to rise greatly, so is the dependence on informal caregivers to provide support and care to older adults. OT's distinctively broad scope of practice enables practitioners to meet the caregiver needs both at an individual and community level through the provision of interventions intended to promote health and wellness. Holistic and client-centered interventions to caregivers can additionally reduce the impact of caregiving and improve caregiver outcomes (Graff et al., 2006; Lee et al., 2007; Sörenson et al., 2002; Thinnes & Padilla, 2011; Waelde et al., 2004). This scholarly project can begin to bridge the gap by using the EHP model to provide guidelines and resources for creating and implementing caregiver health promotion interventions. The activities and methodology of this scholarly project will be outlined in the next chapter, and will provide specific information regarding the product and its use in practice.

CHAPTER III

METHODOLOGY

With the numbers of people with dementia and their caregivers rising dramatically in upcoming years, there is a clear need for an occupational therapy program to meet the unaddressed needs of caregiver interventions and health and wellness promotion for both the caregiver and client. The product created fully addresses this need through the development of a grant application for a *memory care clinic* that will offer holistic and interdisciplinary interventions to the informal caregiver and client with dementia. This chapter describes the application of research to the product and justifies the process and decisions made.

Literature Review

To determine areas of need for older adults and their informal caregivers, a review of the literature available both online and in print was completed as the first step for creating the product. The initial primary focus for this scholarly project was centered on health promotion for clients and caregivers in home care settings. Through the University of North Dakota's online medical library database, professional medical and allied health journals were accessed. Key search words utilized in the online literature search are as follows: *occupational therapy, caregivers, quality of life, wellness, home health care,* and *health promotion.* The databases used during the search were *Academic Search Premier, CINAHL, EBSCOhost databases, Google Scholar, ODIN catalog, OT Search, PubMed,*

Science Direct, SCOPUS, and Wiley Interscience. Print resources utilized for the literature review include select chapters from *Occupational Therapy in the Promotion of Health and Wellness* (Scaffa, Reitz, & Pizzi, 2010). Common themes identified through the literature review were organized into categories of *caregiver interventions, caregiver burden/strain, home health, health promotion for client/caregiver,* and *occupational therapy community interventions for client/caregiver.*

Grant Process

In order to address the unmet needs of the caregiver, the focus for this scholarly project was centered on the creation of a health and wellness promotion program primarily intended for informal caregivers to improve their health and wellness while enhancing their role as an informal caregiver of an older adult. Initially, a guide for occupational therapists or workshop for informal caregivers offered by occupational therapists was considered to meet this gap; however, the unmet need was markedly more extensive than first considered. A program targeting the diverse population of older adults and their caregivers in rural areas and their widespread needs was determined to best fit this population.

A thorough online grant search was conducted to determine available grant funding for novel programs for this population, as a holistic and focused program does not yet exist. The creation of a grant application for an original program for older adults and their informal caregivers ensured the unmet need of this population would be addressed by not only occupational therapy but also through the collaboration with other healthcare professionals. Primary areas of focus during the grant application search included *informal caregivers, caregiving, grant opportunities,* and *older adults* and the

online databases and organizations searched were the Administration for Community Living (ACL), Family Caregiver Alliance (FCA), and grants.gov. The final grant application chosen, *Creating and Sustaining Dementia-Capable Service Systems for People with Dementia and their Family Caregivers*, was the best fit for the purpose of this scholarly project and the needs identified through the literature review.

Product Development

The research gathered in the literature review was utilized as both a means to identify the unmet needs of informal caregivers and their care receivers in home settings as well as to provide a strong foundational base for the product. The unmet needs identified through the literature review are: 1) the need for increased caregiver interventions, and 2) the need for increased promotion of health and wellness in informal caregivers and individuals with dementia.

The unmet need for informal caregiver interventions is addressed in the product continuously, beginning with the initial screening and referral from the primary care physician and the social worker. Interdisciplinary professionals collaborate from the start and continue throughout the duration of care to ensure the needs of the client with dementia and their caregivers are being met. The World Health Organization Quality of Life (WHOQOL-BREF) questionnaire is chosen as a tool to initially assess quality of life for several reasons (World Health Organization [WHO], 2004). This brief questionnaire is organized into simple categories that gather information about one's perceived quality of life, participation in meaningful activities, and satisfaction with routines, performance, and self (WHO, 2004). These concepts are applicable to both the individual with

dementia and the informal caregiver, and can be answered independently or with assistance.

Occupational therapists (OT) will specifically administer checklists, and assessments to examine the quality of life and wellness, functional performance in activities of daily living (ADLs) and instrumental activities of daily living (IADLs), cognitive performance, and home evaluations. The Short Form (SF)-36 was selected as a primary evaluation tool because it ease in administration and offering of general and simple questions that individuals of different ages and literacy levels can understand (Brazier et al., 1992; Ware, Jr. & Kosinski, 2001). The Satisfaction with Life Scale (SWLS) was chosen also for its ease of administration and usefulness in treatment planning. The simple 5 question scale assesses life satisfaction through subjective reports of well-being (Diener, 2006). Additionally, both of these evaluation tools were selected for their noted high levels of validity and reliability as a self-measurement tool (Brazier et al., 1992; Pavot, Diener & Sandvik, 1991).

Thinnes and Padilla (2011) assert that education regarding the disease, caregiver training for coping strategies such as problem-solving, and referral to community resources are all skilled interventions that greatly benefit the caregiver and assist in reducing caregiver burden. Northouse, Katapodi, Song, Zhang, and Wood (2010) note that the majority of informal caregivers are offered little support, education, and time to prepare for their role as a caregiver. With limited assistance, caregivers are often left to deal with the impact of caregiving on their own, leading to negative caregiver outcomes and reduced caregiver health (Schulz & Beach, 1999). To address this issue, OTs will

offer continued education about the disease process of dementia, interventions tailored to reduce caregiver burden and strain, and community resources for caregiver support.

Since the literature indicates that people with dementia and their informal caregivers would benefit from greater health and wellness promotion, the product addresses this need specifically through evaluations and interventions. In order to provide appropriate interventions that promote health and wellness, a reliable tool was necessary to accurately assess the cognitive performance of the individuals with dementia. Douglas, Letts, Eva, and Richardson (2012) and Levy and Burns (2011) assert that the Cognitive Performance Test (CPT) is a valid performance-based assessment that adequately measures cognitive performance and daily functioning as well identifying current cognitive deficits and predicting future cognitive functioning and performance. The CPT will be administered to the client to assess their cognitive functioning and performance in daily activities.

From the results of the CPT, occupation-based kits for the clients will be created for people with dementia who receive services from the *memory care clinic*. Inside the Cognitive Disabilities Reconsidered Model (CDRM) are 9 identified cognitive levels and the behaviors and type of functioning associated with each level (Levy & Burns, 2011). As one's cognitive functioning and performance deteriorates with the disease, the individual with dementia will have increased difficulty completing basic activities of daily living (BADLs) such as dressing, bathing, and self-feeding, navigating unfamiliar environments independently, and completing simple routines (Levy & Burns, 2011). Levy and Burns (2011) also note that with the decline in cognitive functioning comes impairments such as reduced muscle strength, endurance, balance and coordination,

visual acuity, and safety awareness. Combined with increasing cognitive deficits, individuals with dementia would benefit engagement in safe and meaningful activities to occupy the individual and reduce potentially unsafe behaviors (Levy & Burns, 2011). These occupation-based kits are intended to reduce unsafe dementia behaviors while encouraging the client to participate in meaningful occupations. Occupation-based kits will also benefit the caregiver by educating the caregiver on meaningful and safe occupations the client can engage as well as reducing the caregiver's strain and stress from constantly working with the more harmful dementia behaviors.

Model Application

The integration of the Social Ecological Model of Health (SEMH), Ecology of Human Performance (EHP), and Cognitive Disabilities Reconsidered Model (CDRM) into this product ensures that the gaps identified in the literature review are met on an interdisciplinary and individual level to enhance the health and wellness of the client with dementia and the informal caregiver (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003; Lemyre & Orpana, 2002; Levy & Burns, 2011; Reitz, Scaffa, Campbell, & Rhynders, 2010). The SEMH is incorporated into the product through its interdisciplinary framework that is intended to offer guidance and a universal language for all of the professionals identified in the product (Lemyre & Orpana, 2002; Reitz, Scaffa, Campbell, & Rhynders, 2010). The utilization of this model throughout the entire product ensures that the professionals are able to collaboratively work together to best promote improved health and wellness of the individual with dementia and their informal caregiver. OT will greatly utilize the EHP and CDRM to thoroughly evaluate, assess, and provide individualized and meaningful treatments that consider the cognitive

performance and functioning in addition to offering interventions that establish/restore, adapt/modify, alter, prevent, and create occupations and interventions to both the person with dementia and there informal caregiver (Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003; Levy & Burns, 2011). The application of these three models into the product is essential to bridge the gaps in informal caregiving interventions and health and wellness promotion as identified through the literature.

Summary

The process for creating this scholarly project began first with a literature review before determining the direction of the product, finding the appropriate grant application, and developing the grant application as the product. With the literature review providing solid evidence of need for caregiver interventions and increased health and wellness promotion among informal caregivers and care receivers, a product was created to fulfill these needs. Application of the evidence gathered through careful review of the literature and incorporation of the models and treatment interventions provides a strong framework for the product. A summarization of the scholarly project process is detailed in the following chapter IV, describing not only the intricate process involved in creating the product but the involved development of the entire scholarly project.

CHAPTER IV

PRODUCT

The number of older adults in the United States is projected to grow greatly in the upcoming decades, giving rise to an increased need for services and assistance for this population. Of these individuals aged 65 years and older, the number of adults with Alzheimer's disease and other dementias is estimated to be 5.2 million individuals (Alzheimer's Association, 2013), with the prevalence of these diseases expected to increase as a majority of the population in the United States continues to age. The individuals often require extensive care, which is usually provided by informal caregivers who are not trained, prepared, or reimbursed for caregiving. While informal caregivers are happy to help, the act of providing constant care, particularly without training and support, can damage the caregiver's sense of wellness (Schulz & Beach, 1999). Schulz and Beach (1999) discovered that of informal caregivers, the caregivers who experienced greater amounts of caregiver strain had a 63% higher risk of mortality. Community supports can help to reduce this alarming statistic. A sustainable home and community-based service (HCBS) program is proposed in this grant application to meet the diverse

needs of older adults with dementia and their informal caregivers in Wyoming so these individuals can experience a greater quality of life. This chapter presents the product of this scholarly project, which is the actual grant application for the home and community-based service program to support people with dementia and their caregivers.

Problem

In coming years, the population of adults over the age of 65 years in the United States is projected to increase greatly (Vincent & Velkoff, 2010). By the year 2040, it is estimated that the number of older adults aged 65 years and older will rise to 79.7 million and the number of older adults aged 85 years and older will increase to 14.1 million (U.S. Department of Health & Human Services, 2012). Approximately 88% of older adults prefer to age in place (AARP, 2011). Out of the total aging population, the number of newly developed cases of dementia are expected to increase to 53 new cases annually for people aged 65 to 74, 170 new cases annually for people aged 75-84, and 231 new cases annually for people aged 85 and older (Alzheimer's Association, 2013).

With the expected annual number of new cases of dementia to double by 2050, many older adults with dementia will have difficulty aging in place; however, receiving assistance from an informal caregiver may enable them to continue living at home as long as possible. *Informal caregivers* are defined as a primary caretaker who provides care to a care recipient on a long-term basis; the care recipient is typically a relative such as a spouse or parent, friend, or neighbor. The long-term care provided by an informal caregiver often includes assistance with activities of daily living such as dressing, bathing, toileting, housekeeping, or meal preparations. A primary distinguishing feature of informal caregivers from formal caregivers, such as home health providers, is that

informal caregivers are not provided with a monetary reimbursement for their services; rather, their care is provided at no monetary cost to the care receiver.

While informal caregivers are willing to help, researchers suggest that the care provided may often come at a cost of personal well-being and health to the caregiver (Morimoto, Schreiner, & Asano, 2003; Pinquart & Sörensen, 2003). Informal caregivers often have an increase in depression and stress as well as a decline in physical health, self-competency, and well-being (Pinquart & Sörenson, 2003; Thinnes & Padilla, 2011). These rates are shown to increase even more if the informal caregiver lacks personal and professional support with their caregiving role (Thinnes & Padilla, 2011).

The greater number of older adults wishing to age in place will create significant challenges on older adults, healthcare, and social systems. With higher numbers of older adults continuing to reside in the community, there is going to be an increase in the number of services provided to adults aged 65 years and older. These services include both general and specialized healthcare services, such as primary care and rehabilitative services like occupational therapy (OT). There will also be a heavier reliance on social services systems that offer case management programs, assistance with coordinating services and care providers, and general information and counseling to ensure that older adults are able to reside in the community as safely and independently as possible.

Grant Partners

Grant partners are a key resource in this grant proposal, as they currently provide essential services to the community and will be valuable partners to have for this proposed project. In the state of Wyoming, the National Family Caregiver Support Program (NFCSP) is offered to family caregivers who provide care and assistance to

elderly adults as well as other individuals (Wyoming Department of Health, 2013b). This program offers access to services for the caregiver, assesses needs, creates care plans, and coordinates services through case management, offers counseling and education programs to enhance caregiver support, and provides information, respite care services, and supplemental services to aid the caregiver. Those eligible for services include family caregivers who provide care for adults with Alzheimer's disease and related dementias. The NFCSP is a valuable partner for this proposed program due to the comprehensive and widespread services it offers. Combined, both programs will deliver useful and practical resources, services, and education to caregivers of individuals with dementia.

Other grant partners identified in this application are home care and long-term care providers. In Wyoming, two HCBS programs are in place to meet the diverse needs of older adults residing in the community. The first program is a community-based in-home service offered to older adults who have an increased risk of early placement inside an institution (Katz Policy Institute, 2009). This program considers the older adult's performance in various activities of daily living (ADLs) and instrumental activities of daily living (IADLs) in determining qualification for the HCBS program. The second program is the Long-Term Care (LTC) HCBS waiver, which is the title specifically used by the Wyoming Department of Health. The LTC HCBS waiver covers scheduled deliveries of food to client's home, respite care, non-medical transportation services, adult day care programs, consumer-directed care, and skilled nursing services not covered by home health agencies (American Elder Care Research Organization, 2013; Katz Policy Institute, 2009; Wyoming Department of Health, 2013a). The statuses of the grant partners indicate that the National Family Caregiver Support Program is supported

through the Administration on Aging (Administration on Aging [AOA], 2013), the community-based in-home service is established through the Aging division of the Wyoming Department of Health (Katz Policy Institute, 2009), and the Long-Term Care HCBS waiver is a 1915c waiver (Wyoming Department of Health, 2013a). The partnership with these non-profit or state funded programs will ensure that this proposed program will meet the diverse needs of individuals with dementia and their caregivers in the towns and communities of the state of Wyoming.

Home and Community-Based Services and Occupational Therapy

The creation and implementation of a sustainable home and community-based services (HCBS) program for individuals with dementia and their caregivers will support this population on both an individual and group level in the state of Wyoming. This program is necessary to address and maintain the needs of this population on a long-term, supported basis.

The addition of OT services offered within the HCBS program is an immensely useful and practical partnership to maintain the long-term needs of individuals with dementia and their informal caregivers in the community. OT is a profession well-suited to the realm of working with individuals in the community with both basic and instrumental activities of daily living to maximize independence in one's daily life and improve the quality of life. OT's scope of practice will allow therapists in this HCBS program to focus on activities of daily living (ADLs) such as dressing and bathing to instrumental activities of daily living (IADLs) such as community mobility, health maintenance, and home management (American Occupational Therapy Association [AOTA], 2008).

Goals and Objectives

With the information presented thus far, there is a clear need for a sustainable HCBS for individuals with dementia and their caregivers. The goals outlined below are intended to meet the needs of this unique population by providing programs specifically tailored to the needs of individuals with dementia and their caregivers through different professional services around the state of Wyoming. The name of the HCBS program for this grant project is called *memory care clinic.* The overarching primary goal for this project is to provide comprehensive and holistic services and interventions to individuals with dementia and their caregivers to maximize the independence and functioning of the clients while they are residing in the community.

Under this goal, there are two objectives that will improve the program's ability to reach its goal. The first goal is to expand the provision of services to include relevant disciplines to meet the needs of individuals with dementia and their caregiver within the next year after program start-up. The services provided by the *memory care clinic* at startup will include a primary care physician, OT, social work, and nursing as the initial disciplines that will have a vital role in evaluating and providing interventions to clients with dementia and their caregivers. After one year from startup, the *memory care clinic* is expected to be firmly established within the community of Casper, Wyoming. It is anticipated that the need for this program will become greater as more individuals in the community become diagnosed with or have more severe symptoms of dementia.

The second goal of the program is to expand the services offered through the *memory care clinic* around the state within two years from startup. Once the program is established in the city of Casper, Wyoming and begins to provide more comprehensive

services to the target populations, the *memory care clinic* will have a greater opportunity of succeeding in different areas around the state of Wyoming. The *memory care clinic* will be located to the five next most populated areas in Wyoming: Cheyenne, Laramie, Gillette, Rock Springs, and Sheridan (Cubit, 2014).

Figure 1. Primary Goals and Objectives

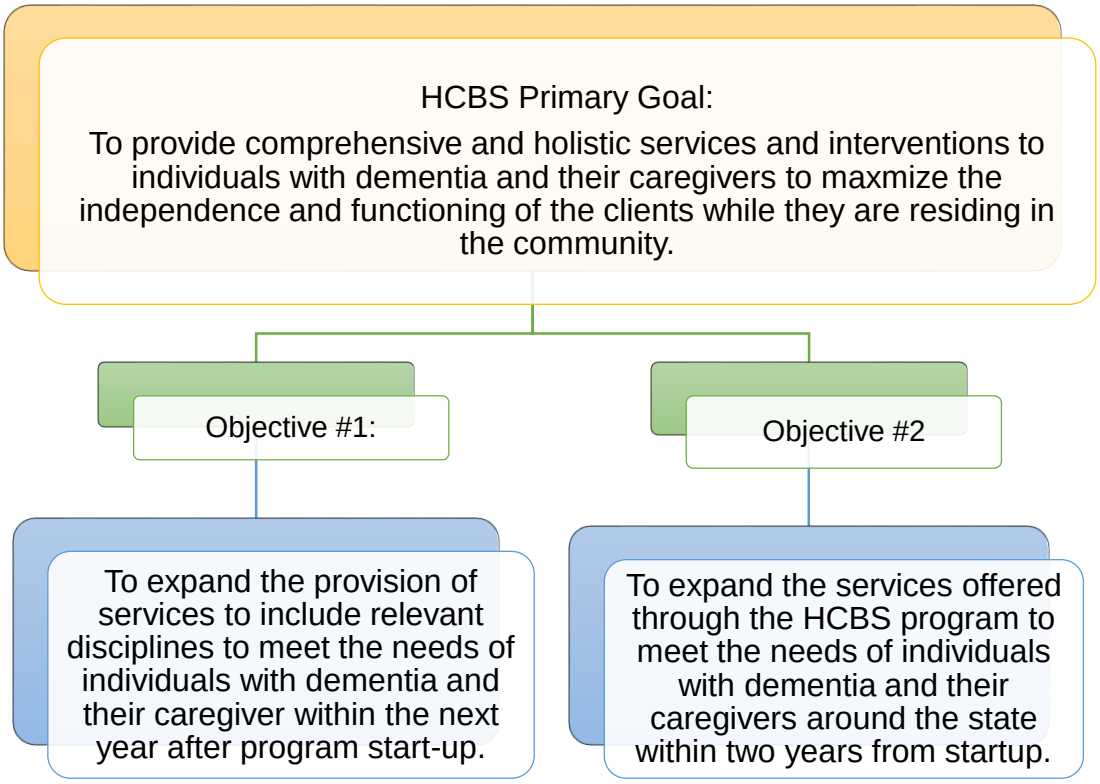


Figure 1. Goals and objectives of home and community-based program for individuals with dementia and their caregivers.

Proposed Interventions

The proposed interventions offered are comprehensive in nature and will assist the professionals working through the program to carefully consider all aspects of the client and their caregiver to maximize their independence and ability to live in the community safely. The programs offered through the *memory care clinic* will follow the Social Ecological Model of Health (SEMH), Ecology of Human Performance (EHP) model, and Cognitive Disabilities Reconsidered Model (CDRM).

Social Ecological Model of Health

The SEMH is the first model used for this proposed program, as it is a strong interdisciplinary model that offers a universal language and framework for the professionals of the *memory care clinic* to utilize. The model considers the interactions of specific populations with their various physical, social, cultural, and economical systems (Reitz, Scaffa, Campbell, & Rhynders, 2010). These systems are organized into different levels on an individual, community, and social level. On a singular level, the *ontosystem* is an intrapersonal level, which includes the individual and their physical and mental components. Family and friends are part of the interpersonal level and are embedded in the *microsystem* of the individual. The *mesosystem* is a community level that is comprised of the areas of various organizations of the community, work, education, and religion. The *macrosystem* is also a community level that consists of the services offered through the government, public, and legal services (Lemyre & Orpana, 2002; Reitz, Scaffa, Campbell, & Rhynders, 2010).

This model will be integral to the development and implementation of services through the *memory care clinic*, as a key component of the model is a focus on the interactions between these different systems. The SEMH supports the belief that the

behavior of individuals is largely influenced by various individual, physical, social, and cultural factors (Reitz, Scaffa, Campbell, & Rhynders, 2010).

Figure 2. Social Ecological Model of Health

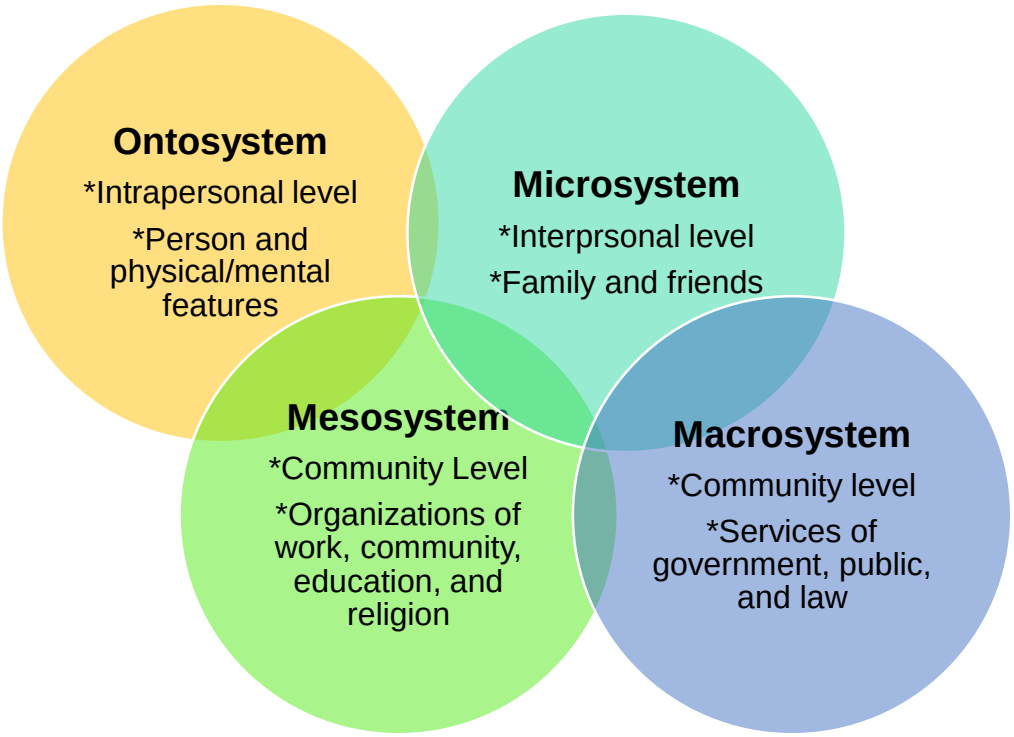


Figure 2. Key concepts of the Social Ecological Model of Health. Adapted from "Health Behavior Frameworks for Health Promotion Practice," by S.M. Reitz, M. E. Scaffa, R. M. Campbell, and P. A. Rhynders, 2010, *Occupational Therapy in the Promotion of Health and Wellness*, p. 60. Copyright 2010 by F.A. Davis Company.

Ecology of Human Performance Model

The EHP model will be used to guide the specific role of OT within the HCBS program. The EHP model is an OT model that works well with the SEMH. The model considers the complete person and their context; in particular, environment is thought to be a primary context that has great influence on human performance (Cole & Tufano, 2008; Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003; Reitz, Scaffa, & Pizzi, 2010). This model closely examines the interactions between the person

and their contexts as well as the impact and influence of these interactions on the person's performance. Another important component of this model is that is can primarily focus on health and wellness promotion, with or without the presence of a disease or disability. The core concepts of this chosen model are seen in the goals and interventions of the *memory care clinic*, and will be reflected throughout the program to ensure that all services and programs provided are holistic and comprehensive.

The four primary concepts of the EHP model consider the *person, task, context,* and *performance*. Combined together, these four concepts identify and address the personal variables of a person such as their experiences and values, the behaviors that comprise a task, the temporal and environmental contexts, and the performance and performance range of a person. The interactions between these four concepts is considered essential to occupational performance. Additionally, the EHP model outlines five intervention strategies for professionals to use with clients: *establish/restore, alter, adapt/modify, prevent,* and *create* (Cole & Tufano, 2008; Dunn, Brown, & McGuigan, 1994; Dunn, Brown, & Youngstrom, 2003). These five intervention strategies will allow the services and interventions offered through the program to meet a variety of diverse needs and demands of the target population through amending or expanding skills, altering or changing the context to improve performance, creation of contexts and situations that support ideal performance, and/or preventing contextual or performance problems. This model fits well with the *memory care clinic* by supporting safety, care, wellness, and quality of life for both the individuals with dementia and their caregivers with their natural environments in the community.

Figure 3. Ecology of Human Performance Model

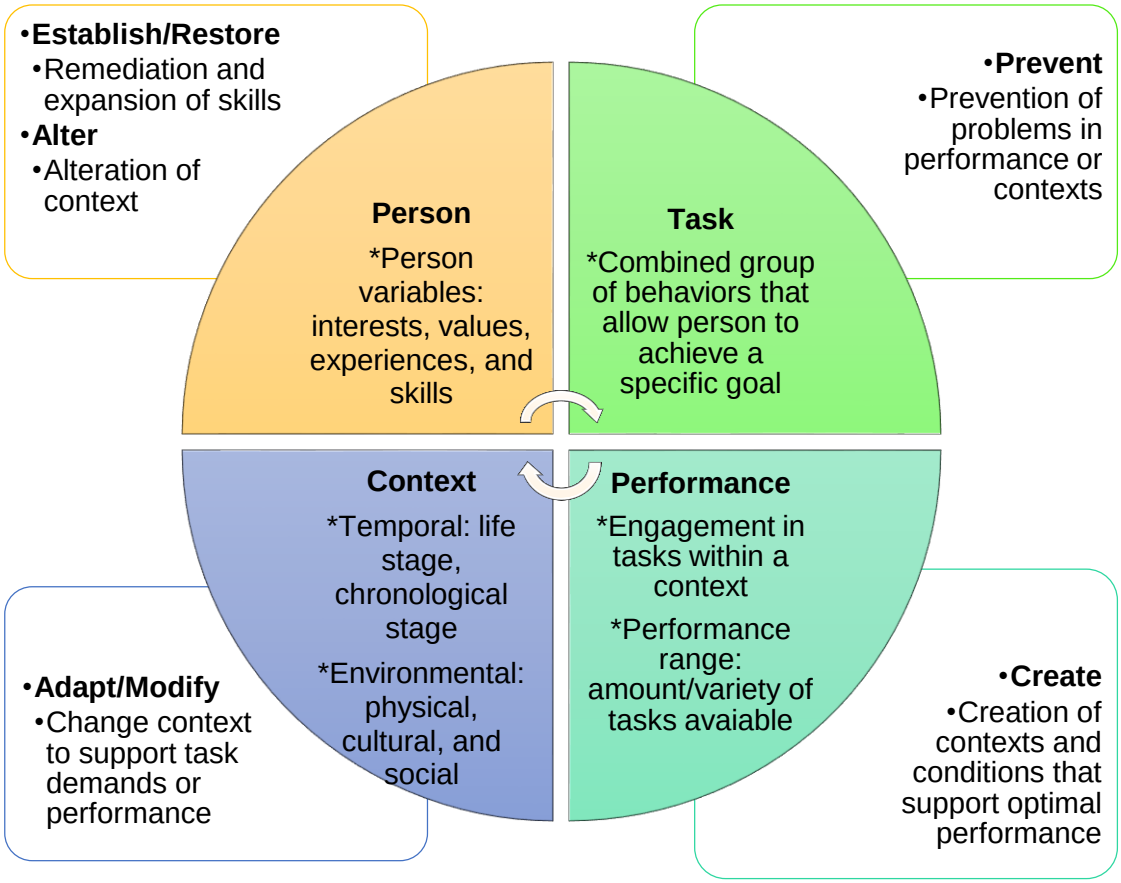


Figure 3. Core concepts and interventions of the Ecology of Human Performance Model. Adapted from "Ecological Model of Occupation," by P. Kramer, J. Hinojosa, and C. Brasic Royeen, 2003, *Perspectives in Human Occupation: Participation in Life,* p. 225. Copyright 2003 by Lippincott Williams & Wilkins.

Cognitive Disabilities Reconsidered Model

The CDRM is a model that will be essential to the delivery of skilled services and interventions for clients and caregivers, as it greatly focuses on *sensory-perceptual memory*, *working memory*, and *long-term memory* and their overall impact on one's *occupational performance* and *executive functioning* (Levy & Burns, 2011). The concepts of this model are reflected in the initiation of services, where the general mental and physical health of an individual is identified with the Short Form (SF)-36 and Cognitive Performance Test (CPT). The consideration of the cognitive functioning of both the client

and caregiver will carry over into the skilled treatments, with therapeutic interventions such as occupation-based kits for the client with dementia will be offered.

The primary concepts of the CDRM are *sensory-perceptual memory, working memory, long-term memory,* and occupational performance (Levy & Burns, 2011). *Sensory-perceptual memory* refers to the type of memory that identifies characterizes the sensory and perceptual information from the surrounding environment. The memory system distinguishes what information is vital and what is not for retaining; however, if the system has deficits there will be a lack of dependable information for other memory systems to collect (Levy & Burns, 2011). As a result, there will be significant impacts in the visual, spatial, and perceptual processes of the individual, greatly affecting their functioning. The *working memory* is an active and complex system that processes information, allowing one to merge information from the environment with information from *long-term memory*. *Working memory* is also essential for synchronizing the different functions of the brain, such as attention, perception, language, problem-solving, judgment, and making decisions (Levy & Burns, 2011). When *working memory* is impacted by dementia, abilities such as comprehension of words and retaining memories are often affected initially. As the disease progresses, *working memory* becomes increasingly limited in its functions and ability to communicate with other systems in the brain. *Long-term memory* includes both *explicit* and *implicit* processes as well as their own individual functions (Levy & Burns, 2011). The *explicit* process holds episodic and semantic memories, where episodic memories are often one of the most strongly impacted and individuals with dementia are often unable to remember new information after a short-term. Semantic memories hold concepts about the world, visuospatial

information such as shapes or figures, and language, and are typically not as greatly impacted. The deterioration of semantic memories is shown through difficulty with recalling words, even if the knowledge of the language remains (Levy & Burns, 2011). The *implicit* process includes procedural memory, which holds the cognitive, motor, and perceptual skills attached to movement- and skill-based information. Overall, these different functions and processes have a significant impact on the *occupational performance* of the individual with dementia. The impact on *occupational performance* is considered through six cognitive-functional levels, which identify the attention and working memory processes, occupational performance, and rehabilitation potential of each level. The use of CDRM in the *memory care clinic* will allow occupational therapists to provide skilled and meaningful interventions to the client with dementia and the caregiver. The most prominent example of this is through the use of occupation-based kits, which will be individually tailored to the interests and needs of the client as well as their cognitive functioning. With the information obtained through the use of the CDRM, the occupational therapist will have a greater understanding of the cognitive functioning and impairments and occupational performance of the client to generate a kit that will occupy the client's interest and time, safely reducing the behaviors that result from the disease process.

Table 1. Cognitive Disabilities Reconsidered Model

Cognitive Level	Cognitive Abilities	Occupational Performance
Level 6	*Intact	*Independent in ADLs and IADLs *Completes novel and complex tasks *Self-aware of others
Level 5	*Oriented to person, place, and time	*Independent in ADLs *Supervision for IADLs that are novel, complex

	*Needs occasional verbal cues	*Unable to judge consequences *Reduced self-awareness
Level 4	*Goal-oriented *Reduced orientation to person, place, and time *Increased language problems *Needs concrete verbal and visual cues *Accidental use of objects	*Set-up and moderate assistance for ADLs *Completes simple 2-3 step tasks *Reduced safety awareness *Completes tasks with much repetition and concrete steps
Level 3	*Not goal-oriented *Confusion with orientation to person, place, and time *Difficulty understanding words *Needs tactile and visual cues	*Maximal assistance with ADLs *Completes repetitive, automatic, and familiar tasks *Poor safety awareness
Level 2	*Reduced interaction with environment *Responds to sensory stimulation but cannot perform a task *Cannot use tools	*Total assistance with ADLs *Cannot feed self *May ambulate or move to assist caregivers *Responds to visual stimuli
Level 1	*No response to sensory stimulation *No motor movements	*Total care *No participation in activities and tasks *Requires palliative care

Table 1. Main concepts of the Cognitive Disabilities Reconsidered Model. Adapted from "Cognitive Disabilities Reconsidered Model," by L. L. Levy, and T. Burns, 2011, *Cognition and occupation across the life span: Models for intervention in occupational therapy,* p. 413. Copyright 2011 by The American Occupational Therapy Association, Inc.

Start of Services

Under the Social Ecological Model of Health, the *memory care clinic* will offer extensive services that begin with a screen for services and referral from the primary care physician of the client and caregiver. The interdisciplinary professionals at *memory care clinic* will work with the intrapersonal, interpersonal, and community systems of the client with dementia and caregiver. The physician will assess the client and caregiver needs through a screen before making the referral for OT and/or nursing needs. The start

of services from the physician will then continue with a screen and needs assessment from the social worker. This initial screen will identify any gaps the clients with dementia and/or their caregivers are experiencing that impacts their daily activities. Once the needs assessment has been completed, the social worker can make the appropriate referral to the OT and nursing staff to complete an initial evaluation to further determine the need for services through the *memory care clinic*. The EHP model will be integrated into delivery of services with the transition of services from the primary care physician and social worker to OT and nursing as part of the direct care offered to the client with dementia and the caregiver. Please refer to Table 2 to review the disciplines involved in the services offered and their roles throughout the process.

The OT and nurse will offer a screen for services and initial evaluation prior to treatment to identify a need for services. The initial evaluation is a comprehensive assessment that will help the OTs and nurses to clearly identify and assess the client and caregiver needs. This evaluation includes the gathering of background information, such as the interests, experiences, ability to perform ADL tasks, skills, and needs of the client/caregiver, in order to create a client/caregiver profile that will assist in determining the appropriateness of services. While assessing the cognitive level of the person with dementia, the OT will follow the CDRM (Levy & Burns, 2011). The CDRM organizes cognition along six levels, which is useful for guiding appropriate interventions and communication strategies. The OT will utilize the CPT to evaluate the client's cognitive level of functioning. In addition to gathering background information, the initial evaluation will also identify personal and environmental variables that support or inhibit occupational performance and what supports are needed to enhance the performance in

daily activities and quality of life of the client/caregiver. This information will also be used to determine which intervention types are warranted inside the program to fulfill the need.

Table 2. Disciplines and Services of the *Memory Care Clinic*

Discipline	Core Services Offered	Role in the *memory care clinic*
Physician	➢ Screen for Services ➢ Referral for services ➢ Health management	➢ Initiate evaluation process ➢ Make referrals
Social Work	➢ Screen for Services ➢ Case management ➢ Education and referrals to community resources and programs ➢ Discharge planning	➢ Assess client needs ➢ Make referrals ➢ Coordinate care
Occupational Therapy	➢ Screen for Services ➢ Initial OT Evaluation of Client/Caregiver Needs ➢ Home/Community Assessment ➢ Home/Community Modifications ➢ Interventions to improve functional performance and safety and promote health in daily activities ➢ Education and referrals to community resources and programs ➢ Discharge Planning	➢ Screen and evaluate for services ➢ Assess functional performance and safety in home and community ➢ Provide therapeutic interventions, education, and resources ➢ Collaborate with other disciplines
Nursing	➢ Screen for Services ➢ Initial Evaluation Nursing Evaluation of Client/Caregiver Needs ➢ Interventions to promote health and safety ➢ Education and referrals to community resources and programs ➢ Medication management ➢ Discharge planning	➢ Screen and evaluate for services ➢ Assess health and health practices in home and community ➢ Provide therapeutic interventions, education, and resources ➢ Collaborate with other disciplines

Table 2. Disciplines and related services provided through the *memory care clinic.*

Home and Community Assessment

After the initial evaluation has been started, the OT will complete a home and community assessment to evaluate the impact of these contexts on performance. The safety of the home environment is greatly considered for its impact on performance in the areas of functional mobility around the home and the physical home environment. The OT using the assessment will also evaluate the need for modifications and/or adjustments within the home to support optimal performance in daily activities.

Implementation of Intervention Plan

Once the OT and nurse complete the initial evaluation and the home and community assessment to evaluate the client and caregiver's functional performance in their natural contexts, an intervention plan is created. The professional services offered through the *memory care clinic* invite collaboration with the client and caregiver to identify and create personally meaningful goals and the treatment plan. OT and nursing staff will respectively decide areas to address with the client and caregiver to support their performance and activities inside the home and community. Interventions offered to clients with dementia and their caregivers include identification of personal and professional supports, services, and resources needed such as adult day care, respite care, or a caregiver support group. Throughout the entire duration of services, it will be necessary on varying levels for the professionals to educate both the client and caregiver on topics such as dementia and its disease process, the interventions offered from each discipline and their benefits, the community resources available, and more.

Occupation-Based Kits

An essential therapeutic tool offered through the *memory care clinic* is the use of occupation-based kits that are used to decrease dependence on the caregiver for supervision and redirection of challenging behaviors. Through the initial evaluation with the client and caregiver, the OT will determine the challenging behaviors and activities the client with dementia engages in, such as wandering the neighborhood or walking up or falling multiple times after continuously walking up and down stairs. The OT will also collaborate with the client and caregiver to discover interests, hobbies, and activities the client enjoyed participating in previously. The intent of the occupation-based kits is to promote participation in safe and meaningful activities, thereby reducing participation in unsafe activities that continually demand redirection form the caregiver, which can be exhausting to the informal caregiver. The OT will use the CPT to identify the client's level of cognitive functioning, which will assist in selecting activities that are both meaningful and appropriate. The occupation-based kits will also reduce the amount of time and level of physical and emotional strain the informal caregiver spends on redirecting the challenging behaviors of the client, thereby potentially improving their physical and psychological well-being.

Respite Care

The *memory care clinic* will partner will the LTC HCBS waiver program (Wyoming Department of Health, 2013a) to provide respite care services to the informal caregivers of individuals with dementia. Respite care includes short-periods of relief for the caregiver both inside the home and in the community, through programs such as adult day care. Sörenson, Pinquart, Habil, and Duberstein (2002) asserted that respite care can

reduce caregiver burden and depression while improving the informal caregiver's overall well-being. Providing access to respite care as part of the interdisciplinary services at *memory care clinic* will allow caregivers to fully participate in therapeutic interventions to meet the caregiver's goals.

Caregiver Education

Caregiver education is an essential component that can determine the achievement of client and caregiver goals. Lee, Soeken, and Picot (2007) determined that educational interventions for caregivers were useful in reducing the negative impacts on the psychological well-being of caregivers, such as depression or mental strain. All of the interdisciplinary professionals involved in the *memory care clinic* will provide continuous education and instruction to the caregiver to keep the caregiver informed of the disease process, skilled services received, and resources available to the caregiver and client with dementia.

Support

The interdisciplinary professionals at the *memory care clinic* will provide supportive interventions to the informal caregiver to increase caregiver competency and reduce physical and mental strains associated with caregiver burden (Sörenson, Pinquart, Habil, & Duberstein, 2002). Supportive interventions for caregivers have been shown to promote health and wellness, manage physical and mental well-being, and provide an outlet for communication with supportive and compassionate professionals, especially when combined with educational programs (Lee, Soeken, & Picot, 2007; Thinnes & Padilla, 2011). Examples of supportive interventions provided by all interdisciplinary

members include general counseling and referrals to support group for dementia caregivers.

Discharge from Services

At the start of services, the OT and nurse discuss the discharge goals extensively with the client and caregiver. Discharge goals will vary depending on the discipline and the expectations of the client, and are intended to show measurable outcomes to identify success of services provided. The client and caregiver will be entirely discharged from the *memory care clinic* once they have been discharged from both OT and nursing services. Please refer to Table 3 to review examples of potential discharge plans and outcome measures for clients and caregivers.

Table 3. Client and Caregiver Example Discharge Goals

Discipline	Client Discharge Goals	Caregiver Discharge Goals
Occupational Therapy	Client will present with reduced number of challenging behaviors within 4 weeks.	Caregiver reports 3/10 on stress scale or less after attending dementia caregiver support group 1x/week for 4 weeks.
	Client participates in meaningful occupations from occupation-based kits.	Caregiver will be able to utilize occupation-based kit to redirect challenging behaviors.
		Caregiver knows dementia disease process, adult day care services, and dementia caregiver support group and verbalizes options and concerns within 4 weeks.
Nursing	Client is assisted by caregiver to take medications as appropriately to maintain health for 6 weeks.	Caregiver safely manages client's medication as demonstrated by medication log and caregiver report for 6 weeks.
	Client will have vital signs that are within the normal range (example: blood pressure, blood sugar)	Caregiver will have vital signs that are within the normal range (example: blood pressure, blood sugar).

	Client is assisted in following bowel/bladder management schedule to avoid urinary tract infections and skin breakdown within 4 weeks.	Caregiver assists client in following bowel/bladder management schedule to avoid urinary tract infections and skin breakdown within 4 weeks.
Social Work	Client will utilize at least 1 community resource (example: adult day care).	Caregiver discharges from OT and nursing services.
	Client discharges from OT and nursing services.	

Table 3. Example Client and Caregiver Discharge Goals for Outcome Measures.

Justification of Interventions

The intent of the services and interventions provided by the *memory care clinic* are ultimately to ensure that the clients with dementia and their caregivers remain in their homes and communities with the necessary supports to maximize independence and quality of life. The extensive services provided by the primary care physician, social worker, occupational therapist, and nurse is necessary to guarantee the primary goal of this sustainable program is met with each client.

The interventions provided will be unique to each case and will all have the intent of fulfilling the primary goal of the *memory care clinic*. The interventions provided will vary according to each discipline but will follow the EHP model; therefore, the interventions will be designed to meet the unique needs of the client with dementia and caregiver. All of the interventions offered will seek to establish/restore, alter, adapt/modify, prevent, and/or create skills and abilities and promote health for independence and quality of life.

Anticipated Barriers

The barriers anticipated with implementation of this program include time, transportation, and personnel limitations. Time is limited among physicians, social

workers, OTs, and nurses when they already have multiple patients to see prior to allocating time to the *memory care clinic*. Transportation is another significant barrier because Wyoming is primarily a rural state with long distances between towns were *memory care clinics* will eventually be available in the state. Caregivers and clients with dementia may need to travel three to five hours or more to receive *memory care clinic* services. Finally, personnel limitations may be encountered due to the healthcare workforce shortage that is present across the United States. It may be challenging to locate enough providers to carry out the services from the *memory care clinic.*

A preliminary *barrier prevention and address plan* has been generated to address potential barriers that may arise within the first year of services provided through the *memory care clinic.* Please refer to Table 4 for the primary concepts of the *barrier prevention and address plan*.

Table 4. *Memory Care Clinic* Barrier Prevention and Address Plan

Barrier	Preventing Barrier	Addressing Barrier
Time	➢ Allocate enough full time equivalent (FTE) time for healthcare providers of *memory care clinic* ➢ Utilize efficiency communication systems (electronic records, checklists, direct contact)	➢ Collaboration with and among available staff members to prevent inadequate staff resources through designated methods of communication ➢ Utilize college and university students for service learning
Transportation	➢ Select services provided to client with dementia and caregivers may be provided on-site at *memory care clinic* ➢ Develop distance locations for *memory care clinic* services ➢ Budget for time and mileage for travel	➢ Creation of mileage log to track reimbursement expenses ➢ Creation of efficient scheduling and traveling methods

	➢ Utilize telehealth for providers and clients/caregivers	
Personnel	➢ Hire enough *memory care clinic* providers ➢ Utilize the partnerships to access personnel	➢ Recruit *memory care clinic* providers in national healthcare venues ➢ Use telehealth to mentor new staff on *memory care clinic* processes

Table 4. Preliminary barrier prevention and address plan.

Special Target Populations and Organizations

Community involvement for the *memory care clinic* will be essential in ensuring the success of the program in meeting the needs of clients with dementia and their caregivers in the community. A primary organization to be involved in implementation of the program's services is the University of North Dakota's Masters of OT program, specifically the distance education program that is offered on the campus of Casper College in Casper, Wyoming (University of North Dakota, 2014). Students enrolled in the program will have a unique opportunity to work with clients with dementia and their caregivers in the community, creating emerging practice areas in promoting health and wellness, productive aging, and mental health (Yamkovenko, 2014). The *memory care clinic* will additionally partner with the University of Wyoming's Masters of Social Work program and Casper College's Associates in Nursing program, both of which are offered on the campus of Casper College (Casper College, 2013; University of Wyoming, n.d.). The partnerships with these three academic programs will serve to benefit both the students as well as the *memory care clinic*, as it will bring fresh perspectives, ideas, and services to the program while granting students the opportunity to practice their newly developed skills in preparation for their roles as an entry-level practitioner.

The proposed interventions will target the typically overlooked older adult and elderly population as well as informal caregivers, who are often at a disadvantage for increased health problems and lower quality of life (Morimoto, Schreiner, & Asano, 2003; Pinquart & Sörenson, 2003). These populations are specifically targeted since the proposed interventions do not aim to use a singular intervention method; rather, under the EHP model, the intervention types are intended to be varied enough to meet the diverse

needs of these populations. An additional advantage of the proposed interventions is that the interventions are not individual to a specific culture; that is, the interventions are broad and inclusive enough to be appropriate for clients with dementia and caregivers from other cultures and ethnicities. The language and cultural expectations of interventions can be adapted to meet the need of the client and caregiver. For example, if English is not the client's primary language, professionals and resources from the community can be contacted and obtained to interview and create interventions for the client that are in their dominant language.

Outcomes

The program outcomes of the *memory care clinic* outlined below have achievable measures that ensure the services provided through the program accountable and appropriate for the community. The outcomes of this project have the opportunity to benefit older adults with dementia and informal dementia caregivers in Wyoming as well as the professions of OT, nursing, and social work. Through the creation of a sustainable HCBS program for individuals with dementia and their caregivers in Casper, Wyoming, the unique and often challenging needs of these populations will be met to provide the opportunity for these individuals

Table 5. *Memory Care Clinic* Outcomes

Goals:

1. To ensure individuals with dementia and their caregivers have access to local a sustainable home and community-based (HCBS) program.
2. To provide comprehensive and holistic services and interventions to individuals with dementia and their caregivers to maximize independence and functioning while they are residing in the community.

Measurable Outcome(s):

1. Thirty clients are discharged from program after meeting 90% of goals within first year of program start-up.
2. A minimum of five students each from the OT program, nursing program, and social work program annually complete at least 20 volunteer hours at *memory care clinic* within first three years of program start-up.
3. Informal caregivers who receive services from the *memory care clinic* will have higher SF-36 wellness scores at discharge when compared to initial evaluation.

Major Objectives	Key Tasks	Lead Person	Start Date	End Date
Identify individuals with dementia and their caregivers through local physicians	➢ Identify target market and entry points ➢ Market services of *memory care clinic* to the target markets through brochures,	Jessica Montgomery, MOT/S	06/01/2014	05/01/2015

	posters, meetings, and advertisements			
Staff are trained in providing person-centered, holistic services to clients with dementia and caregivers	➢ Mandatory attendance for in-services ➢ Mandatory attendance of at least one continuing education course annually pertaining to dementia and/or caregivers	Jessica Montgomery, MOT/S	06/01/2014 Reviewed annually	05/01/2015 Reviewed annually
Interdisciplinary dementia care services are accessible to people with dementia and their caregivers in Casper, Wyoming after the first year	➢ Market *memory care clinic* services to local physicians, speech therapists, and physical therapists through brochures, postures, meetings, and advertisements	Jessica Montgomery, MOT/S	05/01/2015	04/01/2016
Memory care clinic services are accessible to people with dementia and their caregivers in 5 major cities in Wyoming after 5 years in operation	➢ Identify communities in the state that have a need for a sustainable HCBS program for individuals with dementia and their caregivers	Jessica Montgomery, MOT/S	05/01/2016	04/01/2017 Reviewed annually

Table 5. Goals and measurable outcomes work plan.

Project Management

The key personnel involved in the *memory care clinic* all have different responsibilities and role expectations that impact how they provide services through the *memory care clinic.* Please refer to Table 6 for more information on the key personnel involved in the creation and/or implementation of the *memory care clinic.*

Table 6. Project Management Roles and Responsibilities

Personnel	***Memory Care Clinic* Role and Responsibilities**
Jessica Montgomery, MOT/S Project Manager	➢ Creator of local *memory care clinic* as a sustainable home and community-based service program ➢ Creation, implementation, monitoring, and evaluation of *memory care clinic* services ➢ Identification of target markets ➢ Marketing of services to local professionals
Primary Care Physician	➢ Provide primary care services to client with dementia and caregiver ➢ Screen client with dementia and caregiver to identify potential need for services to safely reside in community Referral to *memory care clinic* for further evaluation of need of services
Social Worker	➢ Screens client with dementia and caregiver for need for services Refers client with dementia and caregiver to appropriate *memory care clinic* health care services to maximize independence, functioning, and quality of life
Occupational therapist	➢ Screens and evaluates client with dementia and caregiver to determine need for skilled services ➢ Conducts assessment of home and community functioning ➢ Provides skilled therapeutic interventions to client with dementia and caregiver to maximize independence and quality of life ➢ Provides education and referrals to community resources that can enhance quality of life and independence ➢ Discharges client with dementia and caregiver from skilled services once maximum potential to reach goals has been achieved
Registered Nurse	➢ Screens and evaluates client with dementia and caregiver to determine need for skilled services

	➢ Provides skilled services to client with dementia and caregiver to maximize quality of life and independence ➢ Provides education and referrals to community resources that can improve quality of life and independence ➢ Discharges client with dementia and caregiver from skilled services once maximum potential to reach goals has been achieved
Coordinator from University of North Dakota	➢ Liaison between *memory care clinic* and students ➢ Creates and implements a student contract for services through the *memory care clinic* ➢ Initiates and coordinates program services between the program and the students/staff ➢ Supervises students who volunteer time and resources to *memory care clinic* as per national and state licensure
Coordinator from University of Wyoming	➢ Liaison between *memory care clinic* and students ➢ Creates and implements a student contract for services through the *memory care clinic* ➢ Initiates and coordinates program services between the program and the students/staff Supervises students who volunteer time and resources to *memory care clinic* as per national and state licensure
Coordinator from Casper College	➢ Liaison between *memory care clinic* and students ➢ Creates and implements a student contract for services through the *memory care clinic* ➢ Initiates and coordinates program services between the program and the students/staff Supervises students who volunteer time and resources to *memory care clinic* as per national and state licensure

Table 6. Roles and responsibilities of project management team.

Project Progress Measurement

As the project manager, Jessica Montgomery MOT/S, will monitor the advancement of the proposed HCBS *memory care clinic* through several methods to ensure accuracy and achievement of progress. The project manager will review the outcomes and tasks of the *memory care clinic* quarterly to determine the progress within the HCBS program. Elements such as following budgetary guidelines, achieving the task

or objective by the given date, and appropriate allocation of resources to provide services through the *memory care clinic* will be critically measured to ensure that progress is or is not being consistently made. The project manager will utilize the program software Project Kickstart Pro (Experience in Software, 2014) to organize the tasks and objectives to achieve, the dates for completion, the staff member designated to each task, and the overall progress attained each quarter.

Evaluation

Several different methods and tools will be used to evaluate the progress of both the interventions offered through the *memory care clinic* as well as to document the experiences of the program. The primary care physician will complete a quality of life/wellness checklist using the World Health Organization Quality of Life inventory (WHOQOL-BREF) with the client and caregiver to assess the client and caregiver's perceptions of their quality of life (World Health Organization [WHO], 2004). Please refer to Appendix A to reference the WHOQOL-BREF. Once the client and caregiver are receiving services through the *memory care clinic*, OT, nursing, and social work will complete the appropriate checklist assessments to better measure the needs of the client and caregiver.

The OT will utilize the SF–36 (Ware, Jr. & Kosinski, 2001) to measure the client with dementia and the caregiver's perception of health and need for services. This short survey obtains a subjective viewpoint of one's health over the course of one year in eleven scaled questions. Each question can be answered on a scale from 0-100, and the lower overall score on the SF-36 indicates a potential lower health and quality of life in the individual (Ware, Jr. & Kosinski, 2001). Please refer to Appendix B to reference the SF-36 health survey. The Satisfaction with Life Scale (SWLS) is an additional quality of life measure that the OT will administer to assess the individual with dementia and the caregiver's perceptions of their quality of life. The SWLS is a short questionnaire that examines one's subjective views and satisfaction with their interpersonal relationships, roles, self-satisfaction, and goals (Diener, 2006). Please refer to Appendix C to reference the SWLS questionnaire. When skilled interventions are provided, the OT will use the

Home Fall Prevention Checklist for Older Adults (Centers for Disease Control and Prevention [CDC], 2005) to determine the safety of the home environment in relation to falls for both the client with dementia and the caregiver. Please refer to Appendix D for home fall prevention checklist. The OT will use the CPT as an evaluation tool to objectively measure the cognitive performance and functioning of the client with dementia to assist in creating occupation-based kits for the client and caregiver.

As part of the comprehensive services provided through the memory care clinic, the registered nurse will take vital signs on both the client and caregiver on a scheduled basis to gain objective information about their physiological well-being. Obtaining vital signs will be an important component to assess if skilled interventions are reducing quality of life issues such as caregiver burden, if the caregiver is able to appropriately manage the medications, and more.

The evaluation tools will be administered both pre- and post-services to determine the efficacy and appropriateness of the interventions offered. The information obtained from these evaluation methods will be used to create objective data about the services and interventions offered through the *memory care clinic*, and can be used as a means to continue to provide services that are more beneficial to the clients with dementia and the caregivers. As the three of the previously mentioned evaluation tools are available for public use, they can more easily be used in replicating programs to continue to provide objective program information and data.

Table 7. *Memory Care Clinic* Evaluation Tools

Evaluations	Administered To	Discipline
Checklists ➢ World Health Organization Quality of Life	➢ Client and caregiver	➢ Primary care physician ➢ OT ➢ Nursing ➢ Social Work

➢ ADLs ➢ Medication Management ➢ Community Resources		
Assessments ➢ SF-36 ➢ CPT ➢ Home environment ➢ Satisfaction with Life Scale	➢ Client and caregiver ➢ Client	➢ OT
Vital Signs ➢ Blood glucose ➢ Blood pressure ➢ Respiratory rate ➢ Heart rate ➢ Body temperature	➢ Client and caregiver	➢ Nursing

Table 7. Evaluation tools utilized by the different disciplines of the *memory care clinic*.

Dissemination

Each quarter period during a year, a statistician will be contracted from Casper College will gather and merge the data from the *memory care clinic* to identify progress, trends, and future areas to address within the program. The statistician will validate the results of the data taken from the services provided and the evaluation tools used to formulate outcomes. The project manager will review these outcomes and utilize them to assist in refining and developing effective programs and to determine the budget and allocation of funds to different services within the *memory care clinic.* The project manager will additionally distribute the information to parties that are interested in sponsoring the services or community resources provided through the *memory care clinic*, donating grants or supplemental funds, or replicating the *memory care clinic*.

Organizational Capability

The professionals involved in the *memory care clinic* will have different organizational backgrounds, experiences, and areas of expertise. Combined, these professionals have the ability to ensure that comprehensive services are provided to clients with dementia and their caregivers in the state of Wyoming. Please refer to Table 8 to reference the organizational capabilities of the professionals involved in the *memory care clinic.*

Table 8. *Memory Care Clinic* Organizational Capability

Organization	Scope of Work	Capabilities
Wyoming Department of Health	➢ "At the Wyoming Department of Health, our mission is to promote, protect, and enhance the health of all Wyoming citizens"	➢ Programs are offered statewide ➢ Implements and regulates programs in Wyoming to support older adults and caregivers in the community (National Family Caregiver Support Program, Long-Term Care HCBS waiver)
University of North Dakota	➢ "The primary purpose of the University of North Dakota School of Medicine and Health Sciences is to educate physicians and other health professionals and to enhance the quality of life in North Dakota. Other purposes include the discovery of knowledge that benefits the people of this state and enhances the quality of their lives"	➢ OT program offered to students in North Dakota and Wyoming ➢
University of Wyoming	➢ "Guided by the ethics, values, and practice principles of the social work profession, the mission of the University of Wyoming's Division of Social Work is to educate and prepare students to become effective, ethical, and competent social workers by providing quality and	➢ Social work program offered to students in Wyoming

	diverse learning opportunities toward the betterment of the human condition within the state of Wyoming, nationally, and internationally"	
Casper College	➢ "With a mission of student success, Casper College provides educational opportunities to improve quality of life and sustainable community building and citizenship. The college is a premier public comprehensive two-year institution that provides academic transfer, vocational, continuing education and basic skills education for the citizens of Casper, Natrona County, the State of Wyoming and the World"	➢ Nursing program offered to students in Wyoming

Table 8. Capabilities of the organizations involved in the *memory care clinic.*

Budget Justification

The budget plan for the *memory care clinic* follows 36-month plan. The *memory care clinic budget justification* validates the expenses needed for personnel, fringe benefits, travel, equipment, supplies, and other expenses. The primary personnel identified in the budget justification include the primary care physician, occupational therapist/project manager, occupational therapist, registered nurse, and social worker. Each personnel member will be compensated 25% of their FTE time, with state salary estimates from O*NET (National Center for O*NET Development, 2014). The fringe benefits for personnel include federal insurance contributions, health insurance, dental insurance, life insurance, and unemployment benefits for a total of 36% of the personnel's salary. Additional costs covered in the budget justification include travel expenses for personnel, installation of equipment, acquisition of office supplies and consumable supplies, and miscellaneous expenses for the program.

Table 9. *Memory Care Clinic* Budget Justification

Year 2015 (12 month budget)				
Object Class Category	**Grant Funds**	**Additional Funds**	**Total**	**Justification**
Personnel	$100,925	$0	$100,925	➢ Primary care physician = $38,675 ➢ Occupational therapist/Project manager= $18,600 ➢ Occupational therapist=$16,600 ➢ Registered nurse = $14,900 ➢ Social worker = $12,150
Fringe Benefits	$36,333	$0	$36,333	➢ Primary care physician = $ 13,923 ➢ Occupational therapist/Project manager= $6,696

				➢ Occupational therapist=$5,976 ➢ Registered nurse = $5,364 ➢ Social worker = $4,374
Travel	$1,120	$0	$1,120	➢ State mileage: $0.56/mile
Equipment	$1,941.20	$0	$1,941.20	➢ *Memory Care Clinic* Phones and Internet Equipment = $1,741.20/yr ➢ Equipment installation = $200
Supplies	$6,024.87	$0	$6,024.87	➢ 4 desks @ $359.99 = $1,439.96 ➢ 4 chairs @ $39.99 = $159.96 ➢ 2 storage cabinets @ $299.99 = $599.98 ➢ 2 file cabinets @ $179.99 = $287.98 ➢ 3 business laptop computers @ $479.00 = $1,437.00 ➢ Business printer-copier-fax machine @ $299.99 = $299.99 ➢ Consumable supplies (paper, pens, staples, paperclips, etc.) @ $150/mo = $1,800
Other	$4259.83	$0	$4259.83	➢ Printing 200 brochures @ $49.99 for 25 = $799.84 ➢ Printing SF-36 Evaluation form @ $59.99 for 250 = $59.99 ➢ 1 statistician at $34/hr for 25 hours per yearly quarter = $3,400
Total	**$150,603.90**			
Year 2016 (12 month budget)				
Object Class Category	**Federal Funds**	**Non-Federal Cash**	**Total**	**Justification**
Personnel	$100,925	$0	$100,925	➢ Primary care physician = $38,675 ➢ Occupational therapist/Project manager= $18,600 ➢ Occupational therapist=$16,600

				➢ Registered nurse = $14,900 ➢ Social worker = $12,150
Fringe Benefits	$36,333	$0	$36,333	➢ Primary care physician = $13,923 ➢ Occupational therapist/Project manager= $6,696 ➢ Occupational therapist=$5,976 ➢ Registered nurse = $5,364 ➢ Social worker = $4,374
Travel	$1,120	$0	$1,120	➢ State mileage: $0.56/mile
Equipment	$3,464.64	$0	$3,464.64	➢ *Memory Care Clinic* Phones and Internet Equipment = $3,314.64/yr ➢ Equipment installation = $150
Supplies	$1,800	$0	$1,800	➢ Consumable supplies (paper, pens, staples, paperclips, etc.) @ $150/mo = $1,800
Other	$4259.83	$0	$4259.83	➢ Printing 200 brochures @ $49.99 for 25 = $799.84 ➢ Printing SF-36 Evaluation form @ $59.99 for 250 = $59.99 ➢ 1 statistician at $34/hr for 25 hours per yearly quarter = $3,400
Total	**$147,902.47**			
Year 2017 (12 month budget)				
Object Class Category	**Federal Funds**	**Non-Federal Cash**	**Total**	**Justification**
Personnel	$100,925	$0	$100,925	➢ Primary care physician = $38,675 ➢ Occupational therapist/Project manager= $18,600 ➢ Occupational therapist=$16,600 ➢ Registered nurse = $14,900 ➢ Social worker = $12,150
Fringe Benefits	$36,333	$0	$36,333	➢ Primary care physician = $ 13,923 ➢ Occupational therapist/Project manager= $6,696

				➢ Occupational therapist=$5,976 ➢ Registered nurse = $5,364 ➢ Social worker = $4,374
Travel	$1,120	$0	$1,120	➢ State mileage: $0.56/mile
Equipment	$3,314.64	$0	$3,314.64	➢ *Memory Care Clinic* Phones and Internet Equipment = $3,314.64/yr
Supplies	$1,800	$0	$1,800	➢ Consumable supplies (paper, pens, staples, paperclips, etc.) @ $150/mo = $1,800
Other	$4259.83	$0	$4259.83	➢ Printing 200 brochures @ $49.99 for 25 = $799.84 ➢ Printing SF-36 Evaluation form @ $59.99 for 250 = $59.99 ➢ 1 statistician at $34/hr for 25 hours per yearly quarter = $3,400
Total	**$147,902.47**			
Total 36-month budget		**$446,408.84**		

Table 9. 36-month budget justification for *Memory Care Clinic.*

Project Summary

In summary, the proposed *memory care clinic* through the home- and community-based service program will make a significant difference in the lives and functioning of individuals with dementia and their caregivers. This program will address the diverse and unique needs of this population through the provision of comprehensive and holistic services through qualified professionals whose primary focus is maximize the independence and functioning of individuals in this client population. The all-inclusive interdisciplinary team will include the professions of OT, primary care physician, social work, and nursing to safely address all aspects of a clients' life. Potential clients who would benefit from skilled services will be screened utilizing a battery of assessments to evaluate the physical and mental health of the client with dementia and the caregiver. Skilled interventions offered by the occupational therapists and nurses are intended to facilitate and maximize independence and improve the quality of life of the client with dementia and the caregiver while they continue to reside in the community. Chapter V presented in this scholarly project will summarize the purpose of the project, offer a reflection on the process undertaken for this project, and provide recommendations for future implementation of the proposed *memory care clinic.*

CHAPTER V

SUMMARY

The purpose of this scholarly project was to create an occupational therapy (OT) program designed to address a specifically identified area of need within a chosen population. In approaching years, the population of older adults in the United States is anticipated to rise significantly, creating the need for more informal caregivers to provide care and support. A solution greatly involving and addressing the needs of the caregivers through holistic interventions and services was necessary to remedy this growing problem. The product produced was a grant application for a program intended to promote health and wellness in informal caregivers and individuals with dementia through a multidisciplinary *memory care clinic*.

Product Summary

This scholarly project began as a way to integrate and apply the education and core principles of OT. The initial focus of this scholarly project was to create a guide for OTs to utilize for clients and informal caregivers in home settings. The literature review indicated that there is going to be a great increase in the population of older adults, particularly among older adults that wish to age in place in their community. OT currently has a role working with older adults in the community through home health care services; however, typically these skilled services and interventions are focused solely on the client, often with minimal education, resources, and support being provided to the

caregiver (Craig, 2012). With the rise in population also comes a heavier reliance on informal caregivers to provide continuous support and care for older adults in the community. The potential for the informal caregiver to personally feel increasingly stressed and burdened by their caregiver role rises with a lack of support, knowledge, and resources for caregiving. While there is a probable need for increased OT services in home health care, there is an even greater need for more holistic interventions and services for informal caregivers of older adults, especially for older adults with dementia.

The solution to this identified problem lay in the creation of a grant application for a program that will meet the needs of both informal caregivers as well as the care receiver on various levels. The grant application chosen, *Creating and Sustaining Dementia-Capable Service Systems for People with Dementia and their Family Caregivers*, was selected for a number of reasons. First, the purpose for the grant application directly correlated to the intent of this scholarly project: to meet a specific need of older adults with dementia and their informal caregivers through a *memory care clinic*. Secondly, the grant program is focused on community and home support for this population, making the program an appropriate fit for this scholarly project and its consideration of this population in the home and community. Third, the literature review identified and supported the need for a program that would focus on reducing negative impacts of caregiving to enhance caregiver outcomes and promote improved caregiver health and wellness to ultimately benefit the care receiver. Finally, the purpose of this grant program provided a gateway for a holistic and greatly needed home and community program that would allow OT to meet the diverse and varied needs of both the informal caregivers and the care receivers.

With the involvement and collaboration with other disciplines, three professional models were chosen to guide the product. The Social Ecological Model of Health (SEMH) was chosen for its applicability to multiple professions and its use of universal languages and concepts to promote collaboration among disciplines. The Ecology of Human Performance (EHP) and the Cognitive Disabilities Reconsidered Model (CDRM) were two OT models chosen to reflect the diverse needs of the individuals with dementia and their informal caregivers. The EHP model provided a structured framework for holistic OT interventions for both the informal caregiver and the care receiver. The CDRM offered a detailed guide for OT to consider the cognitive performance and functioning of the individual with dementia to promote engagement in meaningful occupations. These three models were thoroughly integrated into the program to provide a cohesive and detailed guide for practice when implementing the product.

Past, Present, and Future

The journey of starting, creating, and developing this scholarly project has generated many professional and personal changes as a graduate level OT student. Due to the numerous and significant changes, these reflections will be written in first person to provide an accurate and honest account of the process.

Past

Before taking part in this immersive process, my interpersonal, verbal, and written communication skills were very different. Interpersonally, I was often challenged to communicate more assertively and openly in all forms of communication. I was very hesitant and at times unwilling to express my opinion, particularly if it was different, and was unsure of how to explore novel ideas and opportunities. My difficulties and

uncertainness showed especially in my professional papers. Throughout my work, it would often become clear that while I had the information to complete the task, I required more assertiveness and self-efficacy to fully support my work. These difficulties became even more evident during the start of the scholarly project. My personal communication with my advisor and my lack of conviction in my professional work demonstrated that more than just the development of a scholarly project tool or guide was needed to help me transition to the next stage of my academic career. To begin this journey, I first spoke with my advisor about ways to enhance my learning and communication skills. We both agreed that assertiveness in writing and communication would be a huge initial step but it was essential. Integrating this form of communication style into all types of writing, from professional emails to the product itself, proved to be a challenge. Often it felt like the more I tried to be assertive, the more unsure of myself I became. I continued to work on this challenge especially with my advisor, who often counselled me on how to be more naturally assertive.

Along with the challenges in stronger assertiveness in professional writing and communication came the difficulties initially in generating ideas for the scholarly project. At first, I had greater challenges with the direction of the product. I had a narrower mindset of what the project would entail and found it difficult to move from that viewpoint. At first, I was reluctant to create a product that was not solely intended for a home health setting, and was encouraged to step outside of my comfort zone and let the literature guide me in deciding on a topic. With continued advice and practice to be assertive and to open my mind, I began to broaden my viewpoints and was able to transition to the next step of my journey.

Present

The journey through the creation and development of this product has enhanced my skills on a professional and personal level. My heightened comfort level with being assertive has been reflected throughout my professional work and written and verbal communication. The tone of my work has shifted from a passive, unsure voice to one that is clearly more decisive and convincing. My professional and personal communication styles have also changed from being too hesitant and submissive to one that demonstrates more confidence in my knowledge, skills, and perhaps most importantly, myself.

Beyond the noticeable changes in mentality, professional work, and communication, I have also expanded my knowledge and understanding of OT in community-based settings and entrepreneurship. I have also gained invaluable experience completing the majority of the process required for creating a grant application and developing a multidisciplinary community program for older adults with dementia and their informal caregivers. The thoroughness required of the literature review allowed me to critically examine what specific roles OT plays in the community, from who the client may be to the scope of practice. The uniqueness of the grant application persuaded me to consider the benefits and demands of implementing the grant application, for the concept of the product is feasible and appropriate for this population. I have begun to research grant and funding opportunities to truly develop and start this program, as I feel there will be a great need for programs like this in upcoming years, especially in rural areas. Finding an actual grant application and following its criteria during the development of this product allowed me to have extensive first-hand knowledge of the amount of planning, detail, and work that goes into the grant process. Creating a multidisciplinary

community program as part of the grant application also allowed me to fully appreciate the detail and work that goes into the process of program development. Both of these experiences have been invaluable to me and have strengthened my confidence in my skills to develop such projects and ultimately implement them.

Future

In the future, I anticipate that I will only continue to have increased assertiveness and confidence in my knowledge, skills, and communication. Going through the rigorous process of creating the scholarly project and developing a grant application has provided me with irreplaceable knowledge, skills, and experience for the future. As I start the next chapter of my journey as an entry-level OT, I have increased confidence and sense of self-efficacy in my professional and interpersonal abilities and skills. It is also less challenging for me to envision and plan for new areas of practice. For example, the concept and design of this scholarly project can be translated into an emerging practice area. My role throughout this process has helped me see how vital a program like this can be for the community; moreover, I have the confidence and belief in myself that I can be the one to create and implement such a project. Overall, the entire process of the scholarly project has been a journey and a great learning experience for me. Beyond gaining new skills and refining what I already knew, I enhanced my abilities and comfort level with being assertive and direct, improving my own sense of confidence and self-efficacy in myself. This invaluable process can only serve me well in my professional career and I am looking forward to the challenge.

Limitations

There are several barriers to be considered for implementing this scholarly project into practice. The first limitation is the fact that there is a smaller interdisciplinary team to provide services to people with dementia and their caregivers. At the start of the program, only four professions are expected to be part of the program, including OT. This initially limited representation of other disciplines that would be a benefit to the program, such as physical therapy or speech therapy, indicates a likelihood that not all of the needs of individuals with dementia and their informal caregivers will be met. After the program is integrated into the community, the needs of the population will be reassessed to determine if an expansion of the disciplines and services provided is appropriate.

Another limitation is the lack of research providing evidence that such a specialized program would be beneficial and appropriate for this population. Evidence-based research was greatly utilized throughout the entire scholarly project to ensure that there was a noted need for this population, and that the created product was built upon the most recent literature and research to provide a maximum benefit to people with dementia and their informal caregivers. To continue to serve this population, it will be important to know the advantages, effects, and impact of the *memory care clinic* over time.

Recommendations

There are several recommendations for implementing this scholarly project into practice. The first recommendation is to find grant and funding opportunities for the product. In the state of Wyoming, there are several grant resources that may provide funding information or opportunities. Wyoming GrantWatch provides a comprehensive

list of grants offered through the state as well as federal opportunities (Hikand, 2014). Wyoming Community Foundation (WYCF) is a non-profit philanthropic organization that offers funding and resources to non-profits that are dedicated to helping the people of Wyoming (Wyoming Community Foundation, n.d.). The Pat Summitt Foundation gives grant funding to programs that a vested interest in supporting people with Alzheimer's dementia and their caregivers, education on the disease process, and research about the disease (The Pat Summitt Foundation, n.d.). Additional organizations that may provide grant funding or resources include grants.gov, the Family Caregiver Alliance (FCA), and the National Alliance for Caregiving (NAC).

The next recommendation is for the product to be implemented into practice. As the literature shows, the population of older adults and reliance on caregivers is only going to greatly increase in upcoming years. The primary focus and core concepts of the program can be translated into different communities or states. There is going to be an even greater need for services and skilled interventions for this population, and a multidisciplinary community program for the caregivers as well as the care receivers can meet this need. Along with the implementation of the program comes the recommendation to eventually expand the program. As noted in the limitations, the initial plans for the product include four disciplines only: the primary care physician, OT, social work, and nursing. After the *memory care clinic* is established in the community, it is anticipated that the demand for services and resources for the program will increase as more older adults age and more informal caregivers are relied on. To meet the increasing need, it would be appropriate to expand the disciplines and services provided as well as the partnership with the schools to integrate more students and new professionals into this

emerging area of practice. Implementation of this program to different communities and eventually statewide will prove to be both practical and necessary to meet the collective needs of people with dementia and informal caregivers around the state.

The final recommendation is to provide more research and evidence on the benefits and limitations of such a program. To fulfill this, it is recommended that a pilot study be conducted by the OT on the implementation of this program. The study would indicate the benefits and challenges of the *memory care clinic* and identify further areas for improvement. Moreover, the results can be conferred to state organizations such as the Wyoming Department of Health and professional organizations such as the American Occupational Therapy Association (AOTA). The information provided by this study can greatly benefit people with dementia and their caregivers by showing evidence of the benefits for a program designed to meet their needs. The research can also provide information on a program that is an emerging niche for practice in OT (American Occupational Therapy Association, n.d.).

Conclusion

The overall purpose of this scholarly project lead to the creation of multidisciplinary community-based program to promote health and wellness of older adults with dementia and their informal caregivers. This evidence-based project is reflective of research and professional models to develop a useful and practical program intended to bridge the gap between health, wellness, and quality of life and the impact of caregiving on the informal caregiver and the care receiver. The journey experienced through the scholarly project process resulted in improved personal development of self-efficacy and confidence. With these developments I believe I am able to effectively write

a major grant, create a job for myself in an emerging area of practice, and be instrumental in resolving current and imminent societal needs. It is my hope for the future that this program will prove to be a successful and effective way to address the growing numbers and needs of informal caregivers and people with dementia in order promote health and wellness for an improved quality of life.

References

AARP Research & Strategic Analysis. (2011). *Voices of 50+ America dreams and challenges.* Retrieved from http://assets.aarp.org/rgcenter/general/voices-america-dreams-challenges-national.pdf

Administration on Aging. (2013). *National family caregiver support program (oaa title iiie).* Retrieved from http://www.aoa.gov/aoa_programs/hcltc/caregiver/index.aspx

Alzheimer's Association. (2013). 2013 alzheimer's disease facts and figures. *Alzheimer's & Dementia, (9)*2, 208-245. doi:10.1016/j.jalz.2013.02.003

American Elder Care Research Organization. (2013).*Wyoming Medicaid home and community based services*. Retrieved from http://www.payingforseniorcare.com/medicaid-waivers/wy-home-and-community-based-services.html

American Occupational Therapy Association. (n.d.). *Alzheimer's disease and dementia.* Retrieved from http://www.aota.org/Practice/Productive-Aging/Emerging-Niche/Dementia.aspx

American Occupational Therapy Association. (2008). Occupational therapy practice framework: Domain and process (2nd ed.). *American Journal Occupational Therapy, 62,* 625-683. doi: 10.5014/ajot.62.6.625

Bishop, M. M., Beaumont, J. L., Hahn, E. A., Cella, D., Andrykowski, M. A., Brady, M. J., … Wingard, J. R. (2007). Late effects of cancer and hematopoietic stem-cell transplantation on spouses or partners compared with survivors and survivor-

matched controls. *Clinical Oncology, 25*(11), 1403-1411. doi: 10.1200/JCO.2006.07.5705

Brazier, J. E., Harper, R., Jones, N. M., O'Cathain, A., Thomas, K. J., Usherwood, T., & Westlake, L. (1992). Validating the sf-36 health survey questionnaire: new outcome measure for primary care. *BMJ, 305*(6846), 160-164.

Bureau of Labor Statistics, U.S. Department of Labor. (2012). *Occupational outlook handbook, 2012-13 edition, career guide to industries*. Retrieved from http://www.bls.gov/ooh/about/career-guide-to-industries.htm.

Casper College. (2013). *About us.* Retrieved from http://www.caspercollege.edu/nursing/

Center for Health Workforce Studies. (2012). *Health care employment projections: An analysis of bureau of labor statistics occupational projections 2010-2020.* Retrieved from http://www.healthit.gov/sites/default/files/chws_bls_report_2012.pdf

Centers for Disease Control and Prevention. (2005). *Check for safety: A home fall prevention checklist for older adults*. Retrieved from http://www.cdc.gov/homeandrecreationalsafety/pubs/English/booklet_Eng_desktop-a.pdf

Clark, F., Azen, S. P., Carlson, M., Mandel, D., LaBree, L., Hay, J., … Lipson, L. (2001). Embedding health-promoting changes into the daily lives of independent-living older adults: Long-term follow-up of occupational therapy intervention. *Journal of Gerontology: Psychological Sciences. 56B*(1), P60-P63. doi: 10.1093/geronb/56.1.P60

Clark, F., Jackson, J., Carlson, M., Chou, C-P., Cherry, B.J., Jordan-Marsh, M., … Azen, S. P. (2011). Effectiveness of a lifestyle intervention in promoting the well-being of independently living older people: Results of the well elderly 2 randomised controlled trial. *Journal of Epidemiology & Community Health, 66,* 782-790. doi: doi:10.1136/jech.2009.099754

Cole, M. B., & Tufano, R. (2008). Ecology of human performance. *Applied theories in occupational therapy: A practical approach*, (pp. 117-124). Thorofare, NJ: SLACK INC.

Craig, D. G. (2012). Current occupational therapy publications in home health: A scoping review. *American Journal of Occupational Therapy, 66*(3), 338-347. doi: 10.5014/ajot.2012.003566

Cubit. (2014). *Wyoming cities by population.* Retrieved from http://www.wyoming-demographics.com/cities_by_population

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.

Diener, E. (2006). *Understanding scores on the satisfaction with life scale.* Retrieved from http://internal.psychology.illinois.edu/~ediener/Documents/Understanding SWLS Scores.pdf

Douglas, A., Letts, L., Eva, K., & Richardson, J. (2012). Use of the cognitive performance test for identifying deficits in hospitalized older adults. *Rehabilitation Research and Practice, 2012,* doi: 10.1155/2012/638480

Dunn, W., Brown, C, & McGuigan, A. (1994). The ecology of human performance: A framework for considering the effect on context. *American Journal of Occupational Therapy, 48*(7), 595-607.

Dunn, W., Brown, C., & Youngstrom, M. J. (2003). Ecological model of occupation. In Kramer, P., Hinojosa, J., & Brasic Royeen, C. (Eds.), *Perspectives in human occupation: Participation in life* (pp. 222-263.). Baltimore, MD: Lippincott Williams & Wilkins.

Experience in Software. (2014). *Project kickstart pro 5.* Retrieved from http://www.projectkickstart.com/products/project_kickstart.cfm

Family Caregiver Alliance. (2012). *Fact sheet: selected caregiver statistics.* Retrieved from http://www.caregiver.org/caregiver/jsp/content_node.jsp?nodeid=439.

Feinburg, L., Reinhard, S. C., Houser, A., & Choula, R. (2011). *Valuing the invaluable: 2011 update: The growing contributions and costs of family caregiving.* Retrieved from http://assets.aarp.org/rgcenter/ppi/ltc/i51-caregiving.pdf

Gershon, R. R. M., Pogorzelska, M., Qureshi, K. A., Stone, P. W., Canton, A. N., Samar, S. M., … Sherman, M. (n.d.) *Home health care patients and safety hazards in the home: Preliminary findings.* Retrieved from http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/advances-in-patient-safety-2/vol1/Advances-Gershon_88.pdf

Given, B. A., Given, C. W., & Kozachik, S. (2001). Family support in advanced cancer. *CA: A Cancer Journal for Clinicians. 51*(4), 213-231. doi: 10.3322/canjclin.51.4.213

Graff, M. J. L., Vernooij-Dassen, M. J. M., Thijssen, M., Dekker, J., Hoefnagels, W. H. L., Rikkert, M. G. M. O. (2006). Community based occupational therapy for patients with dementia and their care givers: Randomised controlled trial. *BMJ, 333*. doi:10.1136/bmj.39001.688843.Bw

Gupta, J., Chandler, B.E., & Toto, P. (n.d.) *Occupational therapy's role in health promotion.* Retrieved from http://www.aota.org/-/media/Corporate/Files/AboutOT/Professionals/WhatIsOT/MH/Facts/FactSheet_HealthPromotion.ashx

Hasselkus, B. R., & Murray, B. J. (2007). Everyday occupation, well-being, and identity: The experience of caregivers in families with dementia. *American Journal of Occupational Therapy, 61*(1), 9–20. doi:10.5014/ajot.61.1.9

Henderson, R. (2012). Employment outlook: 2010-2020: Industry employment and output projections to 2020. *Monthly Labor Review*. Retrieved from http://www.bls.gov/opub/mlr/2012/01/art4full.pdf

Hikand, L. (2014). *About us*. Retrieved from http://wyoming.grantwatch.com/about.php

Katz Policy Institute. (2009). *Aging strategic alignment project state profile for wyoming home- and community-based services for older adults and adults with physical disabilities*. Retrieved from http://www.benrose.org/kpi/ASAP Report/WY-111709.pdf

Kunstaetter, D. (1988). Occupational therapy treatment in home health care. *American Journal of Occupational Therapy, 48*(2), 513-519. doi:10.5014/ajot.42.8.513

Lee, J., Soeken, K., & Picot, S. J. (2007). A meta-analysis of interventions for informal stroke caregivers. *Western Journal of Nursing Research, 29*(3), 344-356. doi: 10.1177/0193945906296564

Lemyre, L., & Orpana, H. (2002). Integrating population health into social ecology: Role of family medicine researchers. *Canadian Family Physician, 48*(8), 1349-1350.

Letts, L., Edwards, M., Berenyi, J., Moros, K., O'Neill, C., O'Toole, C., … McGrath, C. (2011). Using occupations to improve quality of life, health and wellness, and client and caregiver satisfaction for people with Alzheimer's disease and related dementias. *American Journal of Occupational Therapy, 66*(5), 497-504. doi: 10.5014/ajot.2011.002584

Levy, L., & Burns, T. (2011). The cognitive disability model reconsidered: Rehabilitation of adults with dementias. In N. Katz (Ed.), *Cognition and occupation across the life span: Models for intervention in occupational therapy, (3rd. ed.*) (p. 407-441). Rockville, MD: The American Occupational Therapy Association, Inc.

López, J., Crespo, M., & Zarit, S. H. (2007). Assessment of the efficacy of a stress management program for informal caregivers of dependent older adults. *The Gerontologist, 47*(2), 205-214. doi:10.1093/geront/47.2.205

Medicare Payment Advisory Commission. (2013). *Report to the congress: Medicare Payment Policy.* Retrieved from http://www.medpac.gov/documents/Mar13_entirereport.pdf

Morimoto, T., Schreiner, A.S., Asano, H. (2003). Caregiver burden and health-related quality of life among Japanese stroke caregivers. *Age and Ageing, 32*(2), 218-223. doi: 10.1093/ageing/32.2.218

National Alliance for Caregiving (2009). *Caregiving in the u.s.: Executive summary*. Retrieved from http://www.caregiving.org/data/CaregivingUSAllAgesExecSum.pdf

National Center for O*NET Development. (2014). *O*NET online*. Retrieved from: http://www.onetonline.org/

Northouse, L. L., Katapodi, M. C., Song, L., Zhang, L., & Wood, D. W. (2010). Interventions with family caregivers of cancer patients: Meta-analysis of randomized trials. *CA: A Cancer Journal for Clinicians, 60*(5), 317-339. doi:10.3322/caac.20081

Pat Summitt Foundation. (n.d.). *Grants*. Retrieved from http://www.patsummitt.org/our_role/grants.aspx

Pavot, W., Diener, E., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment, 57*(1), 149-161. doi: 10.1207/s15327752jpa5701_17

Pizzi, M. A. (2010). Promoting health and occupational participation with caregivers. In M. E. Scaffa, S. M. Reitz, and Pizzi, M. A. (Eds.). *Occupational therapy in the promotion of health and wellness* (pp. 397-414). Philadelphia, PA: F. A. Davis Company.

Pinquart, M., & Sörenson, S. (2003). Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. *Psychology and Aging, 18*(2), 250-267. doi: 10.1037/0882-7974.18.2.250

Reitz, S. M., Scaffa, M. E., & Pizzi, M. (2010). Occupational therapy conceptual models for health promotion practice. In M. E. Scaffa, S. M. Reitz, and Pizzi, M. A. (Eds.). *Occupational therapy in the promotion of health and wellness* (pp. 26-28). Philadelphia, PA: F. A. Davis Company.

Reitz, S. M., Scaffa, M. E., Campbell, R. M., & Rhynders, P. A. (2010). Health behavior frameworks for health promotion practice. In M. E. Scaffa, S. M. Reitz, and Pizzi, M. A. (Eds.). *Occupational therapy in the promotion of health and wellness* (pp. 60-62). Philadelphia, PA: F. A. Davis Company.

Robison, J., Fortinsky, R., Kleppinger, A., Shugrue, N., & Porter, M. (2009). A broader view of family caregiving: Effects of caregiving and caregiver conditions on depressive symptoms, health, work, and social isolation. *Journal of Gerontology: Social Sciences, 64B*(6), 788-798. doi: 10.1093/geronb/gbp015

Schulz, R., & Beach, S. R. (1999). Caregiving as a risk factor for mortality: The caregiver health effects study. *Journal of the American Medical Association, 282*(23), 2215-2219. doi:10.1001/jama.282.23.2215

Siebert, C., & Vance, K. (2013). *Occupational therapy's role in home health*. Retrieved from http://www.aota.org/About-Occupational-Therapy/Professionals/PA/Facts/Home-Health.aspx

Sörenson, S., Pinquart, M., Habil, D., Duberstein, P. (2002). How effective are interventions with caregivers? An updated meta-analysis. *The Gerontologist, 42*(3), 356-372. doi:10.1093/geront/42.3.356

Talley, R. C., & Crews, J. E. (2007). Framing the public health of caregiving. *American Journal of Public Health, 97*(2), 224-228. doi: 10.2105/AJPH.2004.059337

Thinnes, A., & Padilla, R. (2011). Effect of educational and supportive strategies on the ability of caregivers of people with dementia to maintain participation in that role. *American Journal of Occupational Therapy, 65*(5), 541-549. doi: 10.5014/ajot.2011.002634

Toth-Cohen, S. (2000). Role perceptions of occupational therapists providing support and education for caregivers of persons with dementia. *American Journal of Occupational Therapy, 54*(5), 509-515. doi: 10.5014/ajot.54.5.509

Toto, P. E. (2006). Success through teamwork in the home health setting: The role of occupational therapy. *Home Health Care Management & Practice, 19*(1), 31-37. doi: 10.1177/1084822306292230

University of North Dakota. (2014). *Overview.* Retrieved from http://www.med.und.edu/occupational-therapy/ot-program-overview.cfm

University of Wyoming. (n.d.). *Academics.* Retrieved from http://www.uwyo.edu/socialwork/academics-pages/

U.S. Department of Health and Human Services, Administration on Aging & Administration for Community Living. (2012). *A profile of older Americans: 2012*. Retrieved from website: http://www.aoa.gov/AoARoot/Aging_Statistics/Profile/2012/docs/2012profile.pdf

Vincent, G. K., & Velkoff, V. A. U.S. Department of Commerce, Economics and Statistics Administration. (2010). *The next four decades the older population in the united states: 2010 to 2050*. Retrieved from: http://www.census.gov/prod/2010pubs/p25-1138.pdf

Waelde, L. C., Thompson, L., & Gallagher-Thompson, D. (2004). A pilot study of a yoga and meditation intervention for dementia caregiver stress. *Journal of Clinical Psychology, 60*(6), 677-687. doi: 10.1002/jclp.10259

Ware, Jr., J. E., & Kosinski, M. (2001). *Interpreting sf-36 summary health measures: A response*. Retrieved from http://www.sf-36.org/news/qolrsupplement.pdf

World Health Organization. (2004). *The world health organization quality of life (whoqol) –bref.* Retrieved from http://www.who.int/substance_abuse/research_tools/en/english_whoqol.pdf

Wyoming Community Foundation. (n.d.). *Grants & scholarships*. Retrieved from http://www.wycf.org/gs.html

Wyoming Department of Health. (2013a). *Assisted living facility and long term care waiver*. Retrieved from http://www.health.wyo.gov/healthcarefin/medicaideligibility/WYECHomeandCommunityBasedWaiver(HCBS).html

Wyoming Department of Health. (2013b). *National family caregiver support program services page*. Retrieved from http://www.health.wyo.gov/aging/services/nfcp.html

Yamkovenko, S. (2014). *The emerging niche: What's next in your practice area?* Retrieved from http://www.aota.org/en/Practice/Manage/Niche.aspx

Appendices

"Last Saturday our son helped us move our furniture. Now all the rooms have clear paths."

FLOORS: Look at the floor in each room.

Q: When you walk through a room, do you have to walk around furniture?

☐ Ask someone to move the furniture so your path is clear.

Q: Do you have throw rugs on the floor?

☐ Remove the rugs or use double-sided tape or a non-slip backing so the rugs won't slip.

Q: Are there papers, books, towels, shoes, magazines, boxes, blankets, or other objects on the floor?

☐ Pick up things that are on the floor. Always keep objects off the floor.

Q: Do you have to walk over or around wires or cords (like lamp, telephone, or extension cords)?

☐ Coil or tape cords and wires next to the wall so you can't trip over them. If needed, have an electrician put in another outlet.

3 Check for Safety Check for Safety 4

STAIRS AND STEPS:
Look at the stairs you use both inside and outside your home.

Q: Are there papers, shoes, books, or other objects on the stairs?

☐ Pick up things on the stairs. Always keep objects off stairs.

Q: Are some steps broken or uneven?

☐ Fix loose or uneven steps.

Q: Are you missing a light over the stairway?

☐ Have an electrician put in an overhead light at the top and bottom of the stairs.

Q: Do you have only one light switch for your stairs (only at the top or at the bottom of the stairs)?

☐ Have an electrician put in a light switch at the top and bottom of the stairs. You can get light switches that glow.

Q: Has the stairway light bulb burned out?

☐ Have a friend or family member change the light bulb.

Q: Is the carpet on the steps loose or torn?

☐ Make sure the carpet is firmly attached to every step, or remove the carpet and attach non-slip rubber treads to the stairs.

Q: Are the handrails loose or broken? Is there a handrail on only one side of the stairs?

☐ Fix loose handrails or put in new ones. Make sure handrails are on both sides of the stairs and are as long as the stairs.

Photo courtesy of John Peck

KITCHEN: Look at your kitchen and eating area.

Q: Are the things you use often on high shelves?

☐ Move items in your cabinets. Keep things you use often on the lower shelves (about waist level).

Q: Is your step stool unsteady?

☐ If you must use a step stool, get one with a bar to hold on to. Never use a chair as a step stool.

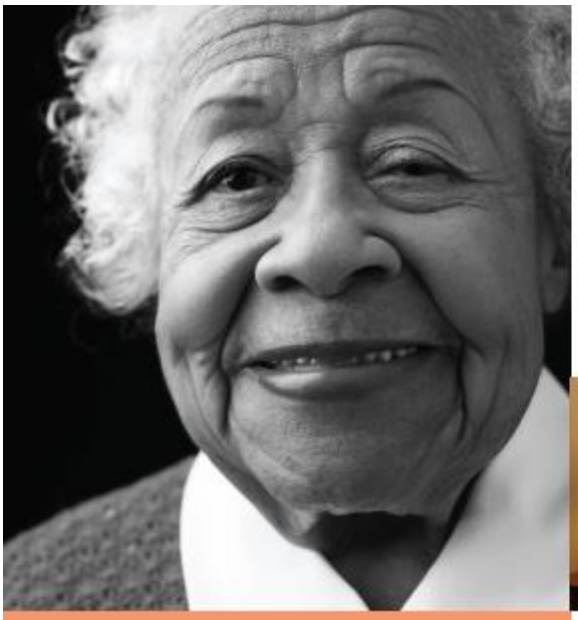
BATHROOMS: Look at all your bathrooms.

Q: Is the tub or shower floor slippery?

☐ Put a non-slip rubber mat or self-stick strips on the floor of the tub or shower.

Q: Do you need some support when you get in and out of the tub or up from the toilet?

☐ Have a carpenter put grab bars inside the tub and next to the toilet.



"I put a lamp on each side of my bed. Now it's easy to find the light if I wake up at night."

BEDROOMS: Look at all your bedrooms.

Q: Is the light near the bed hard to reach?

☐ Place a lamp close to the bed where it's easy to reach.

Q: Is the path from your bed to the bathroom dark?

☐ Put in a night-light so you can see where you're walking. Some night-lights go on by themselves after dark.

From "Check for Safety: A Home Fall Prevention Checklist for Older Adults" by Centers for Disease Control and Prevention, 2005. Copyright 2005 by Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Adapted with permission.

Appendix B

The Satisfaction with Life Scale

By Ed Diener, Ph.D.

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree or Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

_____1. In most ways my life is close to my ideal.

_____2. The conditions of my life are excellent.

_____3. I am satisfied with life.

_____4. So far I have gotten the important things I want in life.

_____5. If I could live my life over, I would change almost nothing.

From "The Satisfaction with Life Scale," by Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S., 1985, *Journal of Personality Assessment, 49*, p. 71-75. Copyright 1985 by Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. Reprinted with permission.