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The Role of Occupational Therapy in Skilled Dementia Care: Improving Quality of Life

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The Role of Occupational Therapy in Skilled Dementia Care:
Improving Quality of Life

by

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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

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This Scholarly Project Paper, submitted by Kelly Bainbridge and April Benoit 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 the work has been done and is hereby approved.

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Faculty Advisor

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Title The Role of Occupational Therapy in Skilled Dementia Care: Improving Quality of Life

Department Occupational Therapy

Degree Master’s of Occupational Therapy

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ABSTRACT

The occurrence of dementia has been increasing over the years. It is estimated that the number of people with dementia will increase to more than 45 million within the next 20 years (Ferri et al., 2005). This increase will lead to an increased demand for occupational therapists to work with individuals with dementia within skilled care units to meet the vast needs of this population and promote quality of life. Occupational therapists are skilled in working with people with dementia; yet, most occupational therapists do not feel confident in their role with skilled dementia care. This has been found to be a problem worldwide (Bennett, Shand & Liddle, 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Bennett et al. (2011) found that 53% of occupational therapists practicing in Australia are not at all, or are minimally confident in their knowledge of working with people with dementia. A literature review was done to examine the needs of this population and to identify effective occupational therapy interventions. This scholarly project resulted in a manual for occupational therapists to guide evaluation and intervention, which will promote occupational performance and quality of life among people with dementia living in skilled nursing facilities.
CHAPTER I

INTRODUCTION

The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with having dementia. It is believed that this number will double within 20 years (Ferri et al., 2005). Due to the decline in cognition, occupational performance is disrupted in people with dementia. This increase will lead to the demand for more occupational therapists (OTs) to work with individuals diagnosed with dementia that receive skilled care. The role of an OT in a skilled dementia care unit is to assist individuals in maintaining their current cognitive function and occupational performance (AOTA, 2012). An OT will assist families and health care providers with implementing interventions into an individual’s daily life in order to promote optimal functioning and quality of life (AOTA, 2012).

Occupational therapists are able to work with people with dementia at any stage of the disease. It was suggested by Wood, Womack, and Hooper (2009) that OTs may be able to create and provide organized activities for residents in an Alzheimer’s disease special care unit. The most common types of interventions are providing advice on environmental modification, prescribing adaptive equipment, educating about dementia, and referring the individual to other professionals (Bennett, Shand, & Liddle, 2011). An OT may use sensory
interventions to help an individual with dementia to relax or decrease negative emotions during times of high stress or when disruptive behaviors are causing issues. A benefit of using sensory approaches may be an increase in activities of daily living (ADLs) performance ability (Staal et al., 2007). Leisure activities may be done for enjoyment, but are also a way for the OT to help the individual preserve functional abilities (Blacker, Broadhurst, & Teixeira, 2008). Leisure interventions may be introduced as a way to keep the client motivated while working on needed skills for successful living (Blacker, Broadhurst, & Teixeira, 2008).

Occupational therapists are skilled in working with people with dementia; yet, most OTs do not feel confident in their role with skilled dementia care. This has been found to be a problem worldwide (Bennett et al., 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Bennett et al. (2011) found that 53% of OTs practicing in Australia are not at all or minimally confident in their knowledge of working with people with dementia. The authors of this scholarly project have focused on the evaluation and intervention planning process of working with individuals diagnosed with dementia living in a skilled care unit.

A literature review was completed, which addressed the areas of overall description and prognosis of dementia, evaluation, and intervention. It was found that the evaluation process for people with dementia must be comprehensive, and that assessments must be completed that address occupational performance, cognitive performance skills, and affective performance skills. The results of the evaluation process help to guide the intervention planning.
Interventions need to match the cognitive ability of individuals as determined by evaluation (Burns & Levy, 2006). The interventions included in this scholarly project correspond with the affective skill components of each level as described by the cognitive disabilities-reconsidered model (CDRM). The authors developed intervention charts that are organized into the main categories discovered through the literature review. These categories include sensory, activities of daily living/instrumental activities of daily living (ADL/IADL), cognitive, environmental, leisure, social, productivity, and positioning. These intervention charts are further organized by cognitive level, so as to make the intervention planning process as simple as possible for the OT.

The authors of this scholarly project used the CDRM created by Theresa Burns and Linda Levy (Burns & Levy, 2006; Levy & Burns, 2011) to guide this scholarly project. The CDRM builds off of Allen’s cognitive disabilities model by relating the impairments in neurocognitive functioning to the person’s ability to perform daily occupations (Burns & Levy, 2006). This model was chosen because its sole focus is on people with dementia, and how their abilities and skills are impacted during the progression of dementia. The CDRM divides an individual’s cognitive abilities into six levels. These levels further explain how one is functioning cognitively, and what an OT can expect to see in regards to cognitive and occupational performance ability. These levels were the basis for the intervention charts created. The authors used the levels to develop interventions that best addressed the difficulties expected at each level.
In addition to the CDRM, the *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2008) was used to help select relevant intervention areas. The language from this document worked well with the CDRM to explain the deficits an individual is experiencing due to dementia. The common areas where the language was used was in the evaluation and intervention section of the manual (AOTA, 2008).

The title of this scholarly project is *The Role of Occupational Therapy in Skilled Dementia Care: Improving Quality of Life*. It is a manual that provides OTs a guide for intervention planning with individuals with dementia living in a skilled dementia care unit. The manual begins with an introduction to the product that includes how best to use the manual, and then is divided into four sections. Section I includes tables and descriptions of the common signs and symptoms of dementia, as well as types of dementia that OTs may encounter most frequently. In section II, the authors explain in detail the cognitive levels as defined in the CDRM (Burns & Levy, 2006; Levy & Burns, 2011). Section III includes tables and descriptions of the primary assessment for this model, the Cognitive Performance Test, as well as other assessments that are appropriate for use with this population. The additional assessments measure occupational performance, cognitive performance skills, and affective performance skills. It is designed so that the OT may pick and choose between the assessments to select the ones that will provide the most realistic picture of the individual’s skills and abilities. The last section of the manual, section IV, includes the charts of intervention ideas. These are organized by each cognitive level, and address the eight areas
of highest need as determined from the literature review. These areas include sensory, ADL/IADL, cognitive, environment, leisure, social, productivity, and positioning. The authors arranged the intervention charts into cognitive levels to assist with easy intervention planning. This will allow an OT to consult one set of charts based on the resident’s needs, and will allow him or her to feel more competent with providing interventions for individuals with dementia.

The development of this scholarly project began with Chapter II, the review of literature. The authors completed a review of literature on dementia and the role of occupational therapy within a skilled dementia care unit. This review took place from April 2012 until March 2013. Chapter III, the methodology, describes the process of the development of the manual. Chapter IV, the product, provides a manual for OTs to use within a skilled dementia care unit titled *The Role of Occupational Therapy in Skilled Dementia Care: A Manual for Improving Quality of Life*. Chapter V, the summary, provides a brief description of the scholarly project as a whole. The authors’ plan to implement, the limitations of the scholarly project, and the recommendations for the future are also include.
CHAPTER II
REVIEW OF LITERATURE

The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with having dementia. It is believed that this number will double within 20 years, which means it will devastate even more families in the years to come (Ferri et al., 2005). Although the occurrence of Alzheimer’s disease (AD) and related dementias are increasing, the role of an occupational therapist (OT) with this population and interventions that are a best fit for the individuals are not well-defined in current research. The purpose of this scholarly project is to help outline the role of occupational therapy in a skilled dementia care facility for people with AD and related dementias.

Dementia Defined

According to the Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (American Psychiatric Association, 2000), dementia is defined as a disorder that results in a change in cognitive processes, with memory being the most affected area. There are many different types of dementia, but all have similar signs and symptoms. Each type of dementia is characterized by its etiology. Dementia may result from a combination of medical conditions, substance abuse, or changes in memory due to aging.
In order for an individual to be diagnosed with dementia, he or she must exhibit certain signs and symptoms. Impairment of memory is the hallmark symptom related to dementia, and must be present for a diagnosis. Other signs and symptoms could include difficulty with speech, motor planning, or an inability to identify visual objects (American Psychiatric Association, 2000).

**Types of Dementia**

There are several types of dementia, which include AD, vascular dementia, frontotemporal dementia, and Lewy bodies dementia. Alzheimer’s disease is the most prevalent type of dementia, and affects 5.4 million individuals in the United States currently (Thies & Bleiler, 2012). In the United States, it is the sixth leading cause of death (Minino, Murphy, Xu, & Kochanek, 2011). In the years to come, there will be increasing rates of individuals impacted by AD (Thies & Bleiler, 2012). An individual can expect to live on average four to eight years once diagnosed with AD; this length of time depends on how fast or slow the progression of the disease is (Brookmeyer, Corrada, Curriero, & Kawas, 2002).

It is also believed that AD is caused from changes in genes, life habits, and risks in the environment. Depending on the type of gene affected, the changes can impact an individual as young as 30 years.

Alzheimer’s disease can be categorized according to the different symptoms displayed. Alzheimer’s disease is characterized by the brain’s inability to form new memories (Thies & Bleiler, 2012). An individual with AD is often diagnosed by the symptoms that he or she is showing. These symptoms may include disruption in memory, problem solving, withdrawal, confusion in similar
places, and poor judgment, and may lead to an individual experiencing difficulty with communicating, visual processing, and problem-solving (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012). Changes in mood and behavior, such as apathy or depression, may be present in the early stages of the disease (Thies & Bleiler, 2012).

A second type of dementia is vascular dementia. Vascular dementia is caused from a decrease in blood flow to the brain that is due to a blockage in a blood vessel (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012). This type of dementia is also associated with either a heart attack or a stroke, and can occur quickly and unexpectedly. Symptoms that may be displayed are poor judgment or the inability to plan ahead. Some of the risk factors for vascular dementia include increased cholesterol and blood pressure, having diabetes, and having a history of smoking (Weatherhead & Courtney, 2012). Individuals who are at risk for vascular dementia should be educated on the risks associated with cardiovascular disease (Thies & Bleiler, 2012).

A third type of dementia is frontotemporal dementia. According to Shagam (2009), frontotemporal dementia is caused by brain atrophy. This affects the frontal and temporal lobes in the brain. Frontotemporal dementia is a rare type of dementia, and is also referred to as Pick’s disease (Robinson, 2009; Shagam, 2009). Frontotemporal dementia is diagnosed by symptoms of speech loss, difference in personality and behavior, hygiene neglect, change in muscle tone, and being unaware of social boundaries (Shagam, 2009). An inability to connect
meanings to words is often the indication that the individual has frontotemporal dementia (Shagam, 2009).

A final type of dementia is Lewy bodies dementia. Shagam (2009) described Lewy bodies dementia as a type of dementia that impacts an individual’s cognition and behavior. Symptoms displayed are similar to an individual diagnosed with Parkinson’s disease. Among the symptoms is muscle rigidity (Thies & Bleiler, 2012). Other symptoms common in individuals with Lewy bodies dementia are hallucinations, changes in autonomic functioning, and problems with sleep habits (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012). Individuals who are diagnosed with Parkinson’s disease could also be diagnosed with having Lewy bodies dementia (Shagam, 2009).

**Signs and Symptoms of Dementia**

There are several signs and symptoms that may indicate an individual has some type of dementia. Symptoms can interrupt the individual’s ability to succeed in daily living tasks. The type of dementia that the individual is diagnosed with is determined by the signs and symptoms that he or she displays. The types of signs and symptoms are described as behavioral, neuropsychiatric, and cognitive. It is estimated that 90% of individuals with dementia will exhibit behavioral or neuropsychiatric symptoms at some point (Saunders, 2012).

**Behavioral Symptoms**

Often times, negative emotions may lead to disruptive behaviors. Lai and Arthur (2003) identified wandering as one of the most difficult disruptive behaviors to manage. In a review of literature completed by the authors, it was
found that wandering is most likely to happen to a male with high cognitive impairment who is prescribed more psychotropic medications than others also diagnosed with AD (Lai & Arthur, 2003).

Performance in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) is commonly negatively affected due to the symptoms exhibited by individuals with dementia (Eustace et al., 2002; Okura et al., 2010). Individuals are often observed wandering or engaging in activities with no defined purpose. As the stages of dementia progress, symptoms of aggression, disorganized thoughts, and irritability were seen more often among patients with mild dementia (Eustace et al., 2002; Okura et al., 2010).

**Neuropsychiatric Symptoms**

In addition to behavioral symptoms, individuals may also demonstrate neuropsychiatric symptoms. According to Okura et al. (2010), examples of neuropsychiatric symptoms are “delusions, hallucinations, agitation, depression, anxiety, elation, apathy, disinhibition, irritability, and aberrant motor behavior” (p. 330). Many patients who display neuropsychiatric symptoms are administered medication to control behaviors (Ballale, Jayalath, Shankar, & Ashaye, 2010; Gruber-Baldini, Boustani, Sloane, & Zimmerman, 2004; Selbaek, Kirkevold, & Engedal, 2008). Ballale et al. (2010) studied the importance of reviewing the individual's medications to ensure that the individual’s behaviors and psychiatric symptoms are not being managed solely with pharmacological interventions. Health professionals who worked with the individuals, however, reported anxiety and irritability as the hardest symptoms to work with. They often found that
working with individuals with these symptoms was described as mentally draining (Ballale et al., 2010).

Individuals often display symptoms that are caused by medications. Ballale et al. (2010) and Selbaek, Kirkevold, and Engedal (2008) found that psychotropic medications prescribed to individuals were used to treat neuropsychiatric symptoms caused from dementia. The medications, however, often affected the individuals negatively by causing an increase in behavioral and psychiatric symptoms (Ballale et al., 2010; Gruber-Baldini, et al., 2004). The psychiatric symptoms noted were hallucinations, depression, agitation, and a decrease in social participation (Ballale et al., 2010; Gruber-Baldini, et al., 2004; Lin et al., 2007; Weatherhead & Courtney, 2012). Saunders (2012) stated that these side effects can have a negative impact on quality of life (QoL).

**Cognitive Symptoms**

Alzheimer’s disease results in more than just behavioral and neuropsychiatric symptoms; it also affects cognitive abilities. According to Okura et al. (2010), neuropsychiatric symptoms are more apparent in individuals with dementia who have severe cognitive impairments. One of the hallmark signs of dementia is memory impairment (American Psychiatric Association, 2000).

According to Burns and Levy (2006), there are three main types of memory affected in those with dementia, which include sensory-perceptual, long-term, and working memory. Sensory-perceptual memory is the ability to filter and analyze incoming sensory information (Kielhofner, 2009). This type of memory is considered automatic, meaning it does not require conscious effort by the
individual (Burns & Levy, 2006). Only the most relevant and pertinent information from the sensory-perceptual memory is selected for permanent storage, which takes place in the working memory (Kielhofner, 2009).

Working memory is used to interpret the information that is coming in to the brain, and combines sensory-perceptual and long-term memory (Burns & Levy, 2006). This type of memory is considered short-term, as it consists of what an individual is thinking about at a particular moment in time (Kielhofner, 2009). Working memory is what drives performance in occupations, and only the most relevant information from this type of memory is further encoded into long-term memory (Burns & Levy, 2006; Kielhofner, 2009).

Long-term memory is what an individual is able to remember over a span of time (Kielhofner, 2009). Long-term memory can be further divided into implicit and explicit memory. Implicit memory is unconscious and automatic, and is the type of memory related to motor, perceptual, and cognitive skills (Burns & Levy, 2006). Other things included in implicit memory include the ability to remember how to do things, priming, perceptual priming, and memories created through classical conditioning (Kielhofner, 2009). Explicit memory is organized into episodic and semantic portions. The recent subsection of episodic memory is what enables people to learn new information and remember things from personal experience (Burns & Levy, 2006; Kielhofner, 2009). Semantic memory includes all beliefs, knowledge, and understanding of concepts and facts that fit into visual-spatial, visual-perceptual, and language-based topics (Burns & Levy, 2006; Kielhofner, 2009).
Impact on Occupational Performance

The combination of behavioral, neuropsychiatric, and cognitive symptoms have a negative impact on an individual’s ability to participate successfully in the eight areas of occupation (American Occupational Therapy Association, 2008). This can lead to a decrease in QoL, as well as lead to a poorer prognosis for the individual. The most frequent areas of occupation affected are ADLs and IADLs, rest and sleep, work, leisure, and social participation.

Activities of daily living and IADLs are among the first areas of occupation impacted by dementia (Burns & Levy, 2006). A person may require varying levels of assistance, from set-up of tasks to hands-on help to complete occupations (Burns & Levy, 2006). A person with dementia may spend excess amounts of time sleeping, or may get less than the recommended amount of sleep (Wood et al., 2009). Sensory interventions may be implemented to assist with the bedtime routine, as these interventions can calm and decrease disruptive behaviors (Martin & Suane, 2012). According to Blacker, Broadhurst, and Teixeira (2008), the ability to maintain participation in work tasks is lost as the illness progresses. Leisure is impacted as the disease progresses. Often times, occupation-based kits are fabricated to allow participation in leisure activities (Loscheider & Roed, 2011; Rogers, 2007). Social participation is one area of occupation that can be greatly affected (Letts et al., 2011; Wood, Womack, & Hooper, 2009). People with dementia living in skilled nursing facilities have a tendency to seclude themselves in their rooms, which decreases the participation in social activities (Wood et al., 2009).
Prognosis

For an individual diagnosed with dementia, the prognosis can vary widely because dementia affects each person differently. According to Brookmeyer, Corrada, Curriero, and Kawas (2002), it is most common for an individual with dementia to be diagnosed at the age of 65 years or older. The average life expectancy for someone with dementia is four to eight years, but individuals can live upwards of 20 years after receiving a diagnosis (Brookmeyer, et al., 2002).

There are many different contributing factors that affect the prognosis of an individual diagnosed with dementia. For example, average life expectancy is associated with the progression of the disease. The older an individual is when diagnosed, the more likely it is that he will have a poor prognosis (Brookmeyer, et al., 2002; Lee, & Chodosh, 2009). Men who are affected by the disease have a poorer prognosis than women (Lee, & Chodosh, 2009). The individual’s prognosis becomes worse once the individual requires assistance for ADLs. Patients have been seen to lose motivation to continue living when their overall functional status has decreased (Lee, & Chodosh, 2009).

Studies have been completed to see if dementia can be reversed or even cured. Muangpaisan, Petcharat, and Srinonprasert (2012) asserted that there is the likelihood that dementia could be reversible in some situations. The possibility for dementia to be reversed may occur when changes in the intracranial pressure occur (Muangpaisan, et al., 2012). Hypothyroidism and lack of the vitamin B12 can also cause dementia to be reversed (Muangpaisan, et al., 2012). According to Weatherhead and Courtney (2012), dementia cannot be
reversible. The main reason it is not reversible is because it is a progressive disease and worsens over time (Weatherhead & Courtney, 2012).

There are seven stages of dementia that have been identified (Bonder & Bello-Haas, 2009). They address the changes in cognition and occupational functioning of the individual as the disease progresses. It was noted by Bonder and Bello-Haas (2009) that although the stages progress in a linear fashion, the rate at which a person advances differs based on the specific type of dementia he is diagnosed with.

The first stage, stage one, represents the absence of difficulty in occupational functioning (Bonder & Bello-Haas, 2009). In stage two, individuals begin to have trouble with word-finding and remembering where things were placed. By stage three, hardships are noted by the individual. The individual will have difficulty maintaining attention to demanding tasks, will be increasingly forgetful, and may become confused in unfamiliar environments. Stage four is when the individual begins needing help from others for tasks that require executive functioning abilities, like budgeting of finances. The individual will have a harder time completing everyday tasks, and will have a difficult time staying on topic when speaking with others. Once an individual is at stage five, it is unsafe for him or her to live independently. The individual will have difficulty selecting appropriate clothing. Motor skills are affected at this stage, and factors affected include reaction time, gait, movement time, and changes in muscle tone. By stage six, the individual requires assistance for all ADLs, and towards the lower end of the stage incontinence of the bladder and bowel begin. The final stage,
stage seven, describes the person as having speech that is hard to understand, no orientation to person, place, or time, and the inability to remember or recognize family members. At the final stage, the individual has lost all bowel and bladder control and relies on others for completion of all ADLs (Bonder & Bello-Haas, 2009).

**Skilled Nursing Facilities/Skilled Dementia Care Units**

As dementia progresses, symptoms impact occupational performance more profoundly, resulting in a need for skilled care. Individuals or their family members may choose to move their loved one into a skilled care facility. Skilled care can be provided in a variety of settings, including assisted living and memory care units. Skilled care in a dementia unit can be defined as cares that are provided to meet the needs of the residents by trained professionals (Alzheimer’s Association, 2013).

According to Kelsey, Laditka, and Laditka (2008), individuals may be admitted into an assisted living facility if they are no longer safe to live at home independently. Assisted living facilities and other long-term care facilities are the next level required to keep an individual safe, because they provide a structured environment. One of the main reasons why individuals and family members choose an assisted living center over a memory care unit is because the individual may require little assistance for self-care or behavioral management (Kelsey, Laditka, & Laditka, 2008). It is important to keep the individuals’ independence as long as possible. Assisted living facilities may provide meals and supervision of medications, but do not provide nursing or medical care, while
memory care units and special care units do provide these accommodations (Alzheimer’s Association, 2013; Mace & Rabins, 2011; Kelsey, et al., 2008). As an individual’s dementia becomes more severe, his or her level of care needed increases; therefore, transitioning to a memory care unit may be beneficial (Kelsey, et al., 2008). According to the study conducted by Kelsey et al. (2008), the three main reasons for recommending a transfer to a memory care unit are incidents of eloping from the facility, changes in physical and mental behaviors, and decrease in independence of completing self-cares.

According to Luo, Fang, Liao, Elliott, and Zhang (2010), the majority of people diagnosed with dementia will live in a nursing home at some point in their lives. Nursing homes provide professional care 24 hours per day, and provide specialized care such as medical cares, nutrition programming, leisure activities, and spiritual programs (Alzheimer’s Association, 2013). In the nursing home setting, it is not required that staff have specialized training on dementia and its impact on the individual (Alzheimer’s Association, 2013). Over the years, a growing number of nursing home facilities are choosing to specialize in care units for individuals with dementia. These care units are called special care units (SCUs) or dementia care units (Jones, Dwyer, Bercovitz, & Strahan, 2009; Mace, & Rabins, 2011).

Special care units specialize in providing care for residents with dementia in several different ways that are unique to the resident, such as behavioral management, dementia care, pain management, skin care, continence management, restorative care, hospice or palliative care, and therapeutic care.
A SCU consists of a locked unit where residents with dementia are protected from those without dementia, and residents without dementia are protected from those with dementia (Alzheimer’s association, 2012).

**Quality of Life in Various Settings**

Quality of life is a complex term, and may be defined in multiple ways. Quality of life can be defined as a subjective rating of the combination of physical and mental health aspects of the individual (Centers for Disease Control and Prevention, 2011). Ettema et al. (2005) also define QoL specific to dementia as a holistic term, affecting both psychological well-being and physical well-being. It is important to adapt one’s environment to promote the highest QoL possible (Ettema et al., 2005).

Maintaining QoL is important when controlling and preventing behavioral and cognitive symptoms, and is thought to be beneficial to study in relation to dementia (Shagam, 2009). A study conducted by Cadigan et al. (2012), researched the differences in quality of care among residents in a SCU compared to those in a basic care nursing unit that is not specialized. The results of the study concluded that residents on a SCU receive greater quality of care; however, residents were treated more with antipsychotic medications for increases in disruptive behaviors (Cadigan, et al., 2012).

For individuals living with dementia, maintaining QoL is very crucial. Even though they may not comprehend day to day tasks, providing them with an environment that is safe and allows them to succeed is important (Shagam,
This will allow them to maintain QoL (Shagam, 2009). Communicating with the patient in a positive way can also increase QoL. It is important to speak to the patient in a calm voice while maintaining eye contact. This can be a positive strategy to prevent disruptive behaviors (Shagam, 2009). Keeping tasks simple while providing a distraction free environment is important to positive QoL (Shagam, 2009).

**Behavior Management**

Residents who have dementia may exhibit disruptive behaviors. Disruptive behaviors have been one of the common reasons why residents have been admitted to a SCU (Cadigan, et al., 2012; Jones, et al., 2009). An increase in agitation and passivity is shown to be linked to a decrease in physical functioning, as well as increased use of chemical restraints and risk of abuse to people with dementia (Kolanowski, Litaker, Buettner, Moeller, & Costa, 2011). Agitation and passivity can be signs of unmet needs in the person with dementia, and are commonly seen in residents of nursing homes. It is important for caregivers to deal with disruptive behaviors in an effective manner, and to be in tune with the needs of the individual. There are many different strategies that one can utilize to assist with decreasing disruptive behaviors.

To manage disruptive behaviors, residents on a SCU tend to be treated with care that is catered to their specific needs more frequently than residents who are in a nursing home (Luo et al., 2010). Furthermore, residents on a SCU are often redirected more effectively when disruptive behaviors escalate (Shagam, 2009). Luo et al. (2010) found that physical restraints are equally likely
to be used in SCUs, nursing homes, and nursing homes with SCUs. Special care units were more likely to utilize chair restraints than the other types of settings. Residents in SCUs were less likely to have pressure ulcers, need hospitalization, and experience weight loss than those in nursing homes (Luo et al., 2010).

Communication skills can be effective in managing disruptive behaviors. When speaking to a resident, it is important to speak in a calm manner while maintaining eye contact. This can be very beneficial in managing disruptive behaviors (Shagam, 2009). When communicating with individuals with dementia, having an environment that is distraction free is effective in decreasing or preventing escalation of disruptive behaviors. Communicating to the resident in simple terms can help him or her eliminate feelings of being overwhelmed and will prevent disruptive behaviors from escalating. It is important for individuals working with a resident who is diagnosed with dementia to always introduce themselves. This will allow the resident to not feel threatened by an unfamiliar individual (Shagam, 2009). When an increase in disruptive behaviors does arise, providing the resident with redirection is a positive intervention to assist with decreasing disruptive behaviors (Shagam, 2009).

When residents display an increase in disruptive behaviors, nursing staff often resort to utilizing medications and restraints. Medications are commonly prescribed to decrease disruptive behaviors. Individuals displaying disruptive behaviors or neuropsychiatric symptoms are prescribed psychotropic medications (Ballalle, Jayalath, Shankar, Ashaye, 2010). At times, however, psychotropic medications can have an opposite effect on residents and actually
cause psychiatric symptoms. Neuropsychiatric symptoms may decrease, but an increase in hallucinations, depression, and agitation has been seen to occur (Ballal et al., 2010).

Saunders (2012) stated that the side effects associated with neuropsychiatric medications can often be the same as symptoms related to dementia. The side effects from antipsychotic medications include parkinsonism, drowsiness, increased risk for falls, and increased risk for getting infections. Antipsychotic medications should only be used in extreme cases for up to twelve weeks maximum, as they have been shown to be effective only fifty percent of the time (Saunders, 2012).

The use of restraints has been prevalent in nursing home facilities to assist with managing disruptive behaviors. There is no set definition for a physical restraint, but the definition described by Boekhorst et al. (2012) is something that causes a person’s freedom of movement to be limited. Restraints may be used to manage disruptive behaviors, but are also used to prevent falls and wandering in people with AD and dementia. There are many different types of physical restraints that nursing home facilities can utilize to decrease these disruptive behaviors (Luo, Lin, & Castle, 2011). Some types of physical restraining techniques include restraining a limb or trunk, positioning an individual in a chair that prevents standing up independently, and bed rails (Luo et al., 2011). Restraining the limbs or trunk of an individual can be done with latch belts or by the hands of another person. It includes bringing the individual’s limbs down to the side to avoid causing harm to self or others. A restraint chair involves
placing an individual in a chair that is designed to make standing difficult. These can include rockers, chairs with belts and trays, or wrist and ankle straps. Bed rails are used to prevent individuals from leaving their bed. The rails are found on both sides of the bed, and when raised make it difficult for the person to leave the bed.

Physical restraints are utilized among residents with or without dementia. A study conducted by Luo et al. (2011) researched the use of restraints in nursing homes and nursing homes with a SCU. Physical restraints are used among any population, but are more prevalent with the population diagnosed with dementia (Luo et al., 2011; Natan, Akrish, Zaltkina, & Noy, 2010) This could be attributed to the increase in disruptive behaviors among the population (Natan, et al., 2010). Staff may utilize restraints because other work expectations need to be performed and completed, to prevent residents from injuring themselves, and to decrease disruptive behaviors (Natan, et al., 2010).

According to Natan et al. (2010), many nurses utilized restraints based on their own belief and attitude toward the disruptive behaviors displayed by the individual. According to this finding, the authors believed it is beneficial to understand that restraints are used to protect an individual from possible dangers to self or others. Nurses should not base their perception of using restraints solely on the behavior displayed by the individual. It is important to remember that an individual may put himself or herself in danger unintentionally, so it is important to protect him or her in a meaningful way with as few restraints as possible (Natan et al., 2010).
As stated in Natan, et al. (2010), some nursing staff believe physical restraints are beneficial in decreasing disruptive behaviors; however, physical restraints are not beneficial in decreasing disruptive behaviors (Tilly & Reed, 2008). Rather, physical restraints were found to increase disruptive behaviors such as agitation, decrease physical activity, and increase a resident’s chance of developing an infection. Removing the use of restraints does not increase the probability of a resident causing harm to himself or herself, but removing restraints will increase the resident’s QoL (Tilly & Reed, 2008). In addition, Arbesman & Lieberman (2011) concluded that providing residents with exercise interventions, adapting their environment, and providing physical training are more beneficial than utilizing restraints.

Physical restraints can also cause a decrease in one’s physical ability. A resident who is physically restrained can lose the ability to walk independently or make decisions (Luo et al., 2011). This is because extended periods of time in restraints causes muscles to atrophy and be less useful. Also, physical restraints can be the reason for the increase in falls among residents with dementia, especially when trunk restraints are utilized. Trunk restraints can be one of the main reasons fractures and injuries occur among residents with dementia. Using physical restraints is not beneficial on preventing falls because they are more likely to increase the occurrence of disruptive behaviors; therefore, they can have a negative impact on one’s QoL and physical abilities (Luo et al., 2011).

Although restraints should be used as a last resort, they are commonly used with people with dementia in nursing homes. Boekhorst et al. (2012) found
that QoL was higher in those individuals that resided in facilities that used surveillance instead of physical restraint to keep residents safe. Surveillance includes using global positioning system (GPS), visual and acoustic monitoring, motion detectors in chairs and beds, door sensors, and chips that open doors that are worn in shoes or clothes. A GPS can be used to track a person’s location without constant supervision. Surveillance techniques may be done when an individual is able to complete ADL tasks without high levels of assistance, as this is a sign that the person may be safe when alone for periods of time (Boekhorst et al., 2012).

According to Luo et al. (2011), it important for individuals working with residents who are diagnosed with dementia to be able to deal with disruptive behaviors in a positive way, instead of resorting to the use of physical restraints and medications. If individuals are able to discover the needs of a resident, this will decrease many of the disruptive behaviors displayed by residents with dementia (Bharwani, Parikh, Lawhorne, Vanvlymen, & Bharwani, M., 2012; Luo et al., 2011).

Cognitive Disabilities-Reconsidered Model

The cognitive disabilities-reconsidered model (CDRM) by Theressa Burns and Linda Levy builds off of Allen’s cognitive disabilities model (Burns & Levy, 2006; Cole & Tufano, 2008). The CDRM relates the impairments in neurocognitive functioning to the person’s ability to perform daily occupations (Burns & Levy, 2006). Burns and Levy (2006) have further validated the cognitive disabilities model created by Claudia Allen by incorporating new research and
knowledge on the cognitive limitations that occur when an individual is diagnosed with dementia (Cole & Tufano, 2008). There are six cognitive levels within the CDRM. The highest level is cognitive level six, planned actions, and progresses down from there. Cognitive level five is named exploratory actions, cognitive level four is goal-directions actions, three is manual actions, two is postural actions, and cognitive level one is titled automatic actions (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011).

According to multiple authors (Burns and Levy, 2006; Cole & Tufano, 2008), there are six cognitive levels that a person may be categorized as functioning at. Receiving the highest score of cognitive level six shows that the person does not have any cognitive disabilities (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). This person is able to maintain attention to a task, even when distractions are present (Burns & Levy, 2006; Levy & Burns, 2011). The individual is able to plan ahead for anticipated problems, and is able to generalize knowledge and experiences (Cole & Tufano, 2008). All types of memory are intact, and information is easily recalled (Burns & Levy, 2006; Levy & Burns, 2011). New learning is possible at this level, and the individual is able to monitor and control behavior (Burns & Levy, 2006).

At cognitive level five, the rate at which complex tasks are completed slows due to impairments in semantic and episodic memory, but the cognitive impairment is not yet noticeable at the higher end of the level (Burns & Levy, 2006; Levy & Burns, 2011). Maintaining attention when faced with distractions becomes difficult, as does understanding abstract cues (Burns & Levy, 2006;
Noticeable changes can be found in problem-solving, reasoning, judgement, and planning ahead (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). The most common and visible issues at this level are impairment in episodic memory recall, and visual-spatial and language functioning (Burns & Levy, 2006; Levy & Burns, 2011). Thinking at cognitive level five is trial and error (Cole & Tufano, 2008). A person functioning at a level five will have difficulties completing complex ADLs and IADLs, especially when in the lower range of the level (Burns & Levy, 2006; Levy & Burns, 2011).

Significant impairments in semantic and episodic recall can be expected at cognitive level four (Burns & Levy, 2006; Levy & Burns, 2011). The person may have difficulty orienting to person and time, and is easily distracted (Burns & Levy, 2006; Levy & Burns, 2011). There is obvious impairment in executive functioning at this level (Burns & Levy, 2006; Levy & Burns, 2011). Managing small details of IADLs and ADLs becomes an issue, as well as initiating tasks (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). This person, however, is able to be goal-oriented with familiar tasks and is able to attend to an activity for one hour (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). At cognitive level four, a person may be able to live alone, but requires assist for safety (Burns & Levy, 2006; Levy & Burns, 2011). At the lower end of the level, the person experiences difficulty thinking abstractly and may not be safe to live independently any longer; therefore, assisted living placement may be recommended at this level (Burns & Levy, 2006; Levy & Burns, 2011).
By cognitive level three, a person is no longer able to understand outcomes of an activity or be goal-directed (Burns & Levy, 2006; Levy & Burns, 2011). The person focuses on the object, instead of the outcome (Burns & Levy, 2006; Levy & Burns, 2011). The thought process is not concrete, and the person requires cues and set-up to complete ADLs (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). The individual is most responsive to tactile cues at cognitive level three, and attention span is approximately 30 minutes (Cole & Tufano, 2008). The person is driven by tactile exploration and has a tendency to perseverate on tasks (Burns & Levy, 2006; Levy & Burns, 2011). At a cognitive level of three, a person is not safe to live independently, as he or she is dependent on others for medication management and for set-up and assistance with ADLs (Burns & Levy, 2006; Levy & Burns, 2011). This person is at a higher risk of falls, as his or her movement and ambulation are affected (Burns & Levy, 2006; Levy & Burns, 2011). At the lower range of the level, the person is more likely to exhibit aggression, agitation, restlessness, and other neuropsychiatric symptoms (Burns & Levy, 2006; Levy & Burns, 2011).

By cognitive level two, a person’s attention shifts to focus on internal stimuli instead of external (Burns & Levy, 2006; Levy & Burns, 2011). Actions are spontaneous or gross motor movements that are imitated (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). The only functioning memory stores are procedural (Burns & Levy, 2006; Levy & Burns, 2011). At cognitive level two, a person’s attention focuses on sound, touch, and movement, and the person is unable to use objects in meaningful ways (Burns & Levy, 2006; Levy & Burns,
2011). The biggest concern for this individual is stability and personal comfort (Cole & Tufano, 2008). This person may be slow while moving and has trouble maintaining balance (Burns & Levy, 2006; Levy & Burns, 2011). Beginning at cognitive level two and continuing into the lowest level is restless behavior and disruptive behaviors including hitting, yelling, and grabbing at people (Burns & Levy, 2006; Levy & Burns, 2011). Swearing, repetitive speech, and singing are the modes of communication available (Burns & Levy, 2006; Levy & Burns, 2011). The person requires total assist for ADLs at this level (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). Occupational therapy interventions begin to focus on family education and caregiver training, as the individual is only able to attend for a few minutes at a time (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011).

At the lowest cognitive level, level one, the person responds to internal stimuli exclusively (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). This person may appear to be unconscious, as he or she stares or does not respond except to painful stimuli (Burns & Levy, 2006; Levy & Burns, 2011). There is little to no information processing occurring at cognitive level one, and the actions carried out by the person are reflexive (Cole & Tufano, 2008). This person may be resistive to cares, and is completely dependent for all cares (Burns & Levy, 2006; Levy & Burns, 2011). It is common at this stage to face complications such as pneumonia, urinary tract infections, pressure sores, and malnutrition (Burns & Levy, 2006; Levy & Burns, 2011). These complications are
what lead to death; therefore, occupational therapy at this level becomes centered on palliative care (Burns & Levy, 2006; Levy & Burns, 2011).

**Evaluation**

The assessment that fits best with the CDRM is the cognitive performance test (CPT). The CPT is a standardized evaluation that uses occupation to determine the level of cognition as a performance skill (Burns & Levy, 2006). Executive functioning and working memory are assessed with the CPT, which helps indicate which areas of performance the individual is experiencing deficits in (Burns & Levy, 2006). Multiple researchers have concluded that the CPT has strong validity and reliability (Bares, 1998; Burns, 2004; Jennings-Pikey, 2001; Schaber et al., 2013). When measuring ADL tasks, there is a strong relationship between functional performance and cognition (Schaber et al., 2013). Therefore using the CPT is congruent with measuring ADL tasks cause there is a strong relationship between the two.

In relation to the *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2008), the individual’s cognitive capabilities and performance skills are assessed through the use of ADLs and IADLs. The tasks that are evaluated include “medbox, shop, toast, phone, wash, dress, and travel” (Burns & Levy, 2006, CE-6).

Observations are important when administrating the CPT, because observations provide one with an analysis of how the individual is functioning (Burns & Levy, 2006). The CPT requires written and verbal cues, along with step by step cues. In level five, the individual is able to understand various cues, such
as written, verbal, or environmental. An individual is able to correct his or her own errors. In level four, the individual requires cues in order to execute multiple demands. The individual is unable to pay specific attention to details of the task that was asked. The function of working memory and executive functioning is very severe in level three. The individual depends heavily on memory to utilize items, but is unable to recognize the outcome of the task. In level two, the individual is able to grasp an item, but is unable to complete the occupation associated with the task (Burns & Levy, 2006).

**Activities/Interventions for Behavior Management**

According to the *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2008), there are three types of interventions. These interventions include preparatory, purposeful, and occupation-based. The main focus point of preparatory interventions is to help facilitate readiness for engagement in purposeful and occupation-based interventions (AOTA, 2008; Rogers, 2007). For an individual displaying disruptive behavior, a preparatory intervention an OT could provide the individual with sensory interventions to decrease the disruptive behavior. Purposeful interventions promote engagement in activities in order to increase the individual’s ability to perform occupations (AOTA, 2008; Rogers, 2007). An example of a purposeful intervention, which may be implemented on a skilled dementia care unit, is having an individual fold a basket of laundry (Rogers, 2007). Occupation-based interventions are interventions that are client-centered and are focused on occupational engagement in one’s own environment (AOTA, 2008; Rogers, 2007).
Implementing occupation-based interventions onto a skilled dementia care unit may be difficult, but it is possible. An OT can have individuals fold their own laundry in their room in order to decrease disruptive behaviors (Rogers, 2007).

More recently, OTs have implemented occupation-based kits into treatment in order to promote the use of occupation-based interventions. According to Rogers (2007), utilizing occupation-based kits can decrease the use of preparatory and purposeful interventions by promoting occupation-based interventions. The occupation-based kits allow individuals to choose an activity that has meaning and purpose (Loscheider & Roed, 2011). Examples of occupation-based kits that have been implemented into therapy sessions include gardening, fishing, and sewing (Loscheider & Roed, 2011; Rogers, 2007).

Over the years, research has been completed on interventions that have been associated with decreasing neuropsychiatric symptoms among people with dementia, such as agitation and anxiety. There are numerous interventions and activities that can be utilized to manage disruptive behaviors associated with these symptoms, rather than resorting to medications and restraints. It has been reported that multisensory interventions such as tactile, manipulative, aromatherapy, or a Snoezelen approach are more favorable approaches to dealing with negative emotions that can lead to disruptive behaviors (Padilla, 2011; Staal et al., 2007; Lin, Chan, Ng, & Lam, 2007). Padilla (2011) and Lin et al. (2007) agree that aromatherapy can be a useful intervention to reduce disruptive behaviors. The authors of one study found that participants that inhaled the scent of lavender showed decreased disruptive behaviors in the
following areas: agitation, dysphoria, irritability, aberrant motor behaviors, and nighttime behaviors (Lin et al., 2007).

Developing a behavioral program for a SCU is one prime example for managing disruptive behaviors such as agitation, wandering, and aggression. According to Bharwani et al. (2012), developing a program that is client-centered and can be implemented when increased disruptive behaviors occur can help with decreasing those disruptive behaviors. Implementing such a program can also benefit the residents and increase their QoL, because staff do not have to resort to medical interventions or restraints to decrease disruptive behaviors. By implementing a client-centered program, staff will be able to meet the needs of the residents and decrease the probability of using any restraints (Luo et al., 2011). Some ideas for client-centered ideas include providing the individual with family photos, photo albums, and music (Bharwani et al., 2012). Not only did this client-centered approach increase QoL, but it also had an exceptional benefit on decreasing agitation, wandering, and falls (Bharwani et al., 2012). Interventions that are tailored to the residents’ needs have had a greater impact on promoting positive behavior, because it decreases disruptive behaviors (Tilly & Reed, 2008). Wu Tao dance therapy contributed to decreasing agitation among individuals with dementia, and had a positive effect on medication management (Duignan, 2009). Along with Duignan’s (2009) research findings, Weaver (2007) concurred that dancing therapy and also music therapy contribute to decreasing disruptive behaviors, and reduce the probability of medications being utilized.
Therapeutic interventions not only decrease behavioral and neuropsychiatric symptoms, but can assist with stabilizing cognitive symptoms. Robert, Galinas, and Mazer (2010) completed a study to determine what types of cognitive interventions are being used by practicing OTs. The cognitive interventions used included cognitive rehabilitation and cognitive training (Robert, Galinas, & Mazer, 2010). In cognitive rehabilitation, individuals are taught how to compensate for their deficits in order to learn new things (Kielhofner, 2009). Cognitive training focuses on the individual relearning tasks by evaluating his or her abilities to perform a task, and also to implement cognitive strategies to assist with the task (Kielhofner, 2009).

It has also been reported that utilizing cognitive stimulation intervention and exercise and motor interventions can improve cognitive abilities (Jensen & Padilla, 2011; Weaver, 2007). Cognitive stimulation is typically used for mild to moderate dementia. When using cognitive stimulation, an OT engages the individual in an activity that will arouse one’s memory and motivate one to communicate with others. Utilizing arts and crafts as interventions can incorporate cognitive stimulation (Jensen & Padilla, 2011). Exercise and motor interventions focus on increasing a greater awareness on safety prevention (Jensen & Padilla, 2011). Although cognitive stimulation is thought to be a worthwhile intervention, Robert, Gelinas, and Mazer (2010) found that only 52% of OTs working with people with AD used cognitive interventions, including cognitive stimulation with clients. Further, these people surveyed reported using these interventions only minimally (Rober, Gelinas & Mazer, 2010).
Along with improving cognitive impairments, it is important to address falls prevention (Arbesman & Lieberman, 2011; Jensen & Padilla, 2011). In order to prevent falls, incorporating balance, strength, and physical training interventions can be beneficial. Examples of interventions that have been found to be beneficial are cooking groups or physical exercise. Also, physical training interventions would include individuals participating in activities that will focus on strengthening, stability, and gait strengthening. (Arbesman & Lieberman, 2011; Jensen & Padilla, 2011).

In addition to all the interventions that can be expected, sexuality interventions are often overlooked. This is an uncomfortable topic and may become a problem in a SCU if not addressed properly. Individuals with dementia may express their sexuality in inappropriate ways. It is important for caregivers and family members to approach the individual's expression of sexuality in a positive manner (Archibald, 2003). An OT may evaluate the individual's sexual behavior by observing the behavior, and providing documentation on the behavior (Kuhn, 2002). Observation will allow the OT to develop an understanding if the sexual behavior is having a negative impact on an individual's QoL, and if it is an OT will provide interventions that will be meaningful and purposeful to the resident. The interventions may assist in distracting the resident from the sexual behavior to an activity that is meaningful to him or her (Kuhn, 2003).

Many times caregivers and family members are embarrassed by the sexual behavior, and do not feel confident in approaching the behavior. An OT
may provide training to caregivers and family members in order to develop the skills and knowledge needed to handle sexual situations that are uncomfortable (Archibald, 2003). Some types of interventions an OT could provide to address sexuality include assisting caregivers and family members to develop an understanding on how disruptive behaviors due to dementia can affect the individual’s expression of sexuality (Archibald, 2003; Kuhn, 2002).

Environment

When working with individuals who have dementia, it is important to have an environment that is supportive for the resident. Having an atmosphere that is more home-like will provide the individual with a more client-centered environment, because he or she will be more familiar with the space (Arbesman & Lieberman, 2011; Cutler & Kane, 2002, Thompson, 2013). In order to make it a home-like environment, adding family photos and favorite possessions are some ideas to add into the environment (Cutler & Kane, 2002).

There are numerous other ways to provide a safe environment for residents in a nursing home setting. For residents who wander, a Velcro mesh gate can be used on doors to stop them from wandering into other residents’ rooms (Culter & Kane, 2002). Having a visual barrier, like a Velcro mesh gate, can also control misconceptions from other residents. Residents may blame others for stealing items from their room when they are seen wandering into the rooms (Culter & Kane, 2002). This also adds increased privacy for all residents living in the nursing home setting (Culter & Kane, 2002).
The physical environment often impacts how one acts within that environment (Culter & Kane, 2002). In a nursing home facility, it is important to provide the residents with an environment that will support their needs and desires to help the residents have positive behavior. In a nursing home facility that houses residents with dementia, it is important to provide them with an environment that is safe, but that provides privacy with limited barriers (Culter & Kane, 2002).

Along with providing an environment that is safe and provides privacy, it is also important to provide an environment that embraces relaxation and serenity to promote participation in meaningful occupations and promote positive behavior (Duignan, 2009). Providing interventions for residents will not only allow for participation, but also prevent falls (Duignan, 2009; Jensen & Padilla, 2011). Interventions that are available at the facility will help to decrease disruptive behaviors (Jensen & Padilla, 2011). Also, educating staff members on how to modify an environment can be beneficial in decreasing disruptive behaviors and allow residents to utilize problem-solving skills (Arbesman & Lieberman, 2011; Jensen & Padilla, 2011). One type of environmental modification is a sensory room (Martin & Suane, 2012). These rooms provide a safe and calming environment for residents. They may include calming music or nature sounds, aromatherapy, and weighted blankets (Martin & Suane, 2012).

A benefit to adapting one’s environment is it could increase QoL and the ability to succeed in the environment. There are multiple interventions that can be incorporated into one’s environment to promote success in everyday life.
Adapting one’s environment by utilizing cueing or cue cards with step by step commands can allow for success (Arbesman & Lieberman, 2011). Staff should allow interventions to be readily available, regardless of the time of day (Anderson, 2008). Having interventions and activities available in the evening hours will not only decrease disruptive behaviors, but it will also increase QoL (Anderson, 2008). Occupational therapists are a perfect fit for creating these programs.

**Role of Occupational Therapy**

Occupational therapists play a major role in the lives of individuals who are living with dementia. An OT can provide services to people with dementia in a variety of settings, especially in a skilled dementia care unit. The role of an OT in a skilled dementia care unit is to assist individuals in maintaining their current cognitive function and occupational performance (AOTA, 2012). An OT will assist families and health care providers with implementing interventions into an individual's daily life in order to promote optimal functioning. Interventions may be implemented by the OT or by direct care staff (AOTA, 2012).

Occupational therapists are skilled in working with people with dementia; yet, most OTs do not feel confident in their role with skilled dementia care. Multiple authors have found that OTs state their perceived competence as low when working with individuals with dementia (Bennett et al., 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Bennett et al. (2011) found that 53% of OTs practicing in Australia are not at all or minimally confident in their knowledge of working with people with dementia. Almost 92% of people surveyed by the
researchers stated that they required further education on working with this population. The most common types of intervention used were advice on environmental modification, prescribing adaptive equipment, education on dementia, and referral to other professionals (Bennett et al., 2011).

As mentioned previously, the context and environment can greatly impact occupational performance. Thompson (2013) stated that it would be beneficial to contact an OT when designing a new long-term care facility, as OTs are trained to look at how the environment affects functioning. Occupational therapists are able to adapt the environment to provide the just-right context for one to succeed (Eustace et al., 2002). Thompson (2013) also stated that occupational therapy’s holistic nature can support both physical and mental health. It is stated that the goal when designing a long-term care environment for people with dementia is that one must keep occupational performance in mind and keep the environment as home-like as possible for the residents (Thompson, 2013).

It was suggested by Wood, Womack, and Hooper (2009) that OT may be able to create and provide organized activities for residents in an AD SCU. In the absence of organized activities, residents are likely to spend their time secluded in their rooms with little to no social participation (Wood et al., 2009). Letts et al. (2011) agreed with the need for socialization in a SCU for those with dementia. The authors felt that an increase in social participation will have a positive impact on QoL (Letts et al., 2011). Wang, Holliday, and Fernie (2009) found that social participation in one individual with dementia was increased when a power mobility option was offered. Due to an inability to ambulate, the participant was
fitted to a power wheelchair with sensors that kept the wheelchair from hitting objects. This allowed for the participant to independently control the wheelchair, thus allowing for an increase in social participation due to being in common areas more often (Wang, Holliday, & Fernie, 2009).

Occupational therapists are also qualified to address ADLs with individuals. Staal et al. (2007) reported that the level of ADL independence increased in residents that received multisensory interventions with a Snoezelen room, as compared to those who did not receive multisensory interventions. Letts et al. (2011) caution that when working with adults with AD, the OT must not rely on adaptive equipment to increase independence in the resident. As the individual ages and the disease progresses, understanding of the use and ability to utilize the tools decreases (Letts et al., 2011).

Kolanowski et al. (2011) recommend matching activities and interventions with an individual’s personal interests, as this increases effectiveness of the intervention. One way to address a person’s interests is to include interventions focused on leisure exploration. Blacker, Broadhurst, and Teixeira (2008) suggest that leisure occupations are especially important for those with disabilities, as they may take the place of work occupations. This is especially true for those with AD and dementia. As the illness progresses, more functional abilities are lost and the ability to work decreases.

Leisure activities may be done for enjoyment, but are also a way to preserve functional abilities (Blacker, Broadhurst, & Teixeira, 2008). Leisure interventions may be introduced as a way to keep the resident motivated while
working on needed skills for successful living. The activity may directly focus on remediation of skills, such as fine motor coordination or strength and endurance, or may have a larger goal, such as increased social participation.

One of the hallmark symptoms of dementia is deterioration of memory and cognitive skills. Occupational therapists are well-equipped to work with people on these issues. Robert, Galinas, and Mazer (2010) sent a survey to practicing OTs in Canada addressing type and frequency of cognitive interventions used with people with AD. It was found that only 52% of the respondents were using cognitive interventions, and were utilizing them less than 25% of the time (Robert, Galinas, & Mazer, 2010).

Sensory interventions may be utilized by the OT to help an individual with dementia to relax or decrease negative emotions during times of high stress or when disruptive behaviors are causing issues. Sensory interventions can include a variety of materials, and may even be set up in the form of a sensory room that one may visit when needed. Items that may be included as a sensory intervention include tactile manipulatives, weighted objects, and/or objects that produce light or sound (Martin & Suane, 2012). In order for a sensory room to be most beneficial to a resident of a SCU, both the resident and staff must be educated on the purpose, use, and benefits of the sensory room. Martin and Suane (2012) found that restraint use was minimal and that the individuals’ perceived levels of stress lowered after utilizing a sensory room or sensory cart at one mental health facility after both individuals and staff received education.
Staal et al. (2007) found that providing inpatients of an acute care psychiatry unit individualized sensory interventions, in addition to regular occupational therapy sessions and monitored medication routines, improved levels of apathy and agitation when compared to a control group. Similarly, Padilla (2011) completed a systematic review of articles that added to the growing evidence that sensory interventions may be effective in reducing neuropsychiatric symptoms. Sensory interventions not only help decrease negative emotions and disruptive behaviors, but may help to improve QoL and increase participation in ADLs (Padilla, 2011). Duffin (2012) stated that similar outcomes can be expected when implementing a sensory program based on human touch.

Summary

Occupational therapists are more than prepared to work with individuals living in a skilled dementia care unit, but practicing OTs currently do not feel confident in their ability to do so (Bennett et al., 2011). There will be an increased need for OTs to work with this population in the future due to the increase in individuals diagnosed with dementia. Approximately 24 million people are currently living with dementia, and it is believed that that this number will double within the next 20 years (Ferri et al., 2005). With this increase in dementia, it is believed that there will be an influx of people with this diagnosis in skilled care facilities. Often, skilled care facilities are needed due to the decrease in the individual’s occupational performance. Occupational therapists have the skills needed to create and implement interventions focusing on the individual’s issues
in occupational performance areas. These can include sensory, ADLs/IADLs, cognitive, environmental, social participation, leisure, productivity, and positioning.

This scholarly project focuses on creating a manual for OTs to utilize in a skilled dementia care unit. This manual includes evaluations and interventions that are suited for this population. The interventions focus on the needs of this population, according to the research and are listed above. The CDRM guided the intervention planning process, as the final product is broken into interventions for each cognitive level. Chapter three explains the process by which this manual was created.
CHAPTER III

METODOLOGY

According to Bennett, Shand, and Liddle (2011), over half of the occupational therapists (OTs) practicing in Australia rate themselves as not at all or minimally confident in their knowledge of working with people with dementia. Almost 92% of people surveyed by Bennett et al. (2011) stated that they required further education on working with this population. This finding is consistent to that found in other countries (Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Based on these findings, the goal of this scholarly project was to provide practicing OTs with a manual to help guide the therapy process when working with individuals with dementia in a skilled dementia care unit.

A literature review was completed by the authors of this scholarly project. The authors completed this review from April 2012 through March 2013 and searched peer-reviewed studies through CINAHL, PubMed, the American Journal of Occupational Therapy, and EBSCOhost. The search words included dementia, occupational therapy, interventions, signs and symptoms, types of dementia, environmental modification, sensory interventions, quality of life, cognitive disabilities-reconsidered model (CDRM), Cognitive Performance Test (CPT), evaluations, sexuality, OT confidence, and skilled dementia care units. Other sources used included occupational therapy textbooks, OT Practice
Magazine, and reputable internet sites. The findings from this review of literature helped guide the process for creating the final product. The final product of this scholarly project, a manual for OTs working with individuals with dementia, has been organized into sections that are compatible with the natural process of intervention planning. The manual begins with an introduction on how to best use the manual within one’s practice setting.

The literature informed the inclusion of facts and information about dementia in the manual. It is important for OTs to understand the occurrence rates of dementia and the various types of dementia when working with this population. The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with having dementia. There are multiple types, including Alzheimer’s disease (AD), vascular dementia, frontotemporal dementia, and Lewy Bodies dementia.

It is also important for OTs to understand the typical signs and symptoms of dementia; therefore, this information from the literature was also included in the manual. The research of dementia led to the creation of tables describing the most common signs and symptoms, as well as the most prevalent types of dementia. The tables have been written in a way that is easy to understand, so that OTs have a reference guide when beginning therapy with a new client that has dementia.

The literature also reflected a useful model for guiding occupational therapy evaluation and intervention. The CDRM breaks dementia into six levels
based on the cognitive processing abilities of the individual. After selecting this model to guide the process of creating the interventions, the authors utilized the literature to compile a list of evidence-based assessments that identify needs of people with dementia. These assessments were organized into focus areas including occupational performance, cognitive performance skills, and affective performance skills. These assessments were found to be the areas most affected by dementia.

Among the assessments to measure occupational performance in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) tasks are the Routine Task Inventory (RTI), the Kettle Test, the Assessment of Motor and Process Skills (AMPS), and the Functional Independence Measure (FIM). Assessments that address cognitive performance skills include the Cognitive Performance Test (CPT), Global Deterioration Scale (GDS), Allen’s Cognitive Levels Screen (ACLS), and the Mini-Mental State Examination (MMSE). In order to measure affective performance skills, the Geriatric Depression Scale can be used. These types of assessments were chosen to help the OT get the most holistic picture of the individual. It is important for an OT to distinguish the focus of each assessment in order to match it to the resident’s needs. For example, if an OT wants to develop an occupation-based kit for a resident, it is important to conduct an assessment that measures the resident’s cognitive level rather than occupational performance; therefore, the CPT would be the best assessment to select.
Finally, charts of possible interventions organized by cognitive level are provided for the OT. The authors arranged the intervention charts into cognitive levels to assist with easy intervention planning. This will allow an OT to consult one set of charts based on his or her resident’s needs and allow him or her to feel more competent with providing interventions for individuals with dementia. The skills and abilities of the resident will allow the OT to distinguish his or her cognitive level in order to provide interventions that promote and maintain the skills expected at that level. For example, if a resident functioning at a cognitive level three is displaying increased disruptive behaviors and wandering, the OT can utilize interventions from the environment category to modify that resident’s environment in order to create a more peaceful and less distracting area.

**Model**

The authors used the CDRM created by Theressa Burns and Linda Levy (Burns & Levy, 2006; Levy & Burns, 2011) to guide this scholarly project. This model was chosen because its sole focus is on people with dementia, and how their abilities and skills are impacted during the progression of dementia. The CDRM divides an individual’s cognitive abilities into six levels. These levels further explain how one functions cognitively and what an OT should expect. These levels were the basis for the intervention charts created. The authors used the levels to develop interventions that best addressed the difficulties experienced at each level.

The CPT is designed to be used in conjunction with the CDRM. This assessment addresses the individual’s cognitive ability through completion of
ADLs and IADLs. The final score of the CPT directly relates to the individual’s cognitive level as defined in the CDRM. An OT can use the CPT to analyze the cognitive level of the individual and use the appropriate intervention table developed by the authors in order to provide interventions that are meaningful to the individual. Once the assessment is completed and scored, the OT can refer to that cognitive level chart within the manual for possible intervention ideas. This organization helps to decrease confusion on possible interventions that will work for that resident. For example, if the OT administered and scored the CPT and found that the resident was functioning at a cognitive level four, then the OT could locate the intervention charts for this cognitive level without having to read information about the other cognitive levels. Also, the organization of the charts will help the OT feel comfortable and confident in providing the correct interventions for that resident.

The authors of this scholarly project used the cognitive levels as defined in the CDRM and the facts found from the literature review to guide the development of the manual for OTs working with individuals with dementia. The manual follows the natural progression of occupational therapy intervention planning. It begins with building a knowledge base of the diagnosis and prognosis, conducting comprehensive evaluations and assessments, and intervention planning and implementation. It is the authors’ goal that OTs will become more competent and confident with working with individuals with dementia after implementation of this manual. Chapter four includes an
introduction to the product, as well as how to use the manual within one’s clinical setting.
CHAPTER IV

PRODUCT OVERVIEW

Occupational therapists (OTs) are trained to provide interventions for individuals with dementia; however, it has been found that OTs are not comfortable or confident in their ability to provide services to this population (Bennett, Shand & Liddle, 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). The product of this scholarly project is a manual that will allow OTs to build their confidence and competence when working with individuals with dementia. The manual provides evaluation resources and intervention ideas to implement at a skilled dementia care facility. These approaches correlate with the levels of dementia as defined by the cognitive disabilities-reconsidered model [CDRM] (Burns & Levy, 2006; Levy & Burns, 2011). The authors of this scholarly project have organized the cognitive levels into a way that is congruent with the *Occupational Therapy Practice Framework: Domain and Process* (American Occupational Therapy Association [AOTA], 2008). The areas addressed are areas of occupation, performance skills, and client factors (AOTA, 2008). The organizational framework presented in the product considers individuals’ expected occupational performance and provide interventions to accommodate and help maintain their functional level. The interventions provided are designed to support quality of life (QoL) among people with dementia.

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This manual has been designed for use in skilled dementia care units by OTs. It is believed that implementation of this manual will lead to higher QoL for individuals with dementia. Quality of life within dementia care is a holistic term that encompasses both psychological and physical well-being (Ettema et al., 2005). Providing a safe environment in which one is able to succeed in daily activities is important for maintaining QoL (Shagam, 2009). This manual has been organized into four sections, which are sequenced as follows:

**Section I: Types of Dementia**

- Describes the types of dementia with common signs and symptoms
- Explains the three types of signs and symptoms (behavioral, cognitive, and neuropsychiatric)

**Section II: The Cognitive Disabilities-Reconsidered Model (Burns & Levy, 2006)**

- Describes each of the six levels of cognitive ability
- Describes expected occupational performance for each level
- Offers general approaches that work well with each cognitive level

**Section III: Evaluations**

- Cognitive Performance Test (CPT)
- Other assessments that measure occupational performance
- Other assessments that measure cognitive performance skills
- Assessments that measure affective performance skills
Section IV: Interventions

• Intervention ideas for affective skill components of each level of the cognitive disabilities-reconsidered model

• Intervention types include sensory, ADL/IADL, cognitive, environmental, leisure, social, productivity, and positioning
Description of Model

As stated above, the CDRM is the model that guided development of this manual for OTs. This model was developed by Theressa Burns and Linda Levy, and is a continuation of Allen’s Cognitive Levels as created by Claudia Allen (Burns & Levy, 2006; Levy & Burns, 2011). The CDRM categorizes dementia into six levels based on the cognitive processing abilities of the individual. The authors of this scholarly project organized each level into easy to read charts that include behaviors and skills that the individual may exhibit at each level, as well as broad intervention ideas that OTs may utilize.

The CPT is the evaluation that correlates with the CDRM. The authors have described the use of the CPT with individuals with dementia, along with various other assessments the OT may use with this population. These assessments address occupational performance, cognitive performance skills, and affective performance skills.

The authors of this scholarly project have used the levels defined by the CDRM to create interventions focused on promoting and maintaining the skills expected at each level. The broad intervention ideas are more general in description than the specific intervention tables. The intervention charts also include tips for providing education to caregivers to promote QoL. The interventions are organized into categories that address common problem areas that were identified within the literature review.

In addition to creating interventions, the authors have incorporated the CPT into the evaluation portion of this scholarly project (Levy & Burns, 2011).
The CPT is the primary standardized assessment that coincides with the CDRM (Burns & Levy, 2006; Levy & Burns, 2011). This assessment measures the individual's working memory and executive functioning through performance tasks related to activities of daily living (ADLs) and instrumental activities of daily living (IADLs). There are seven subtests that factor into the final score. These subtests are laid out verbatim, which provides the administrator specific steps to follow. These instructions include the need for providing prompts and cues when an individual struggles with the original instructions. The overall score of the CPT is the cognitive level that the individual is functioning at. Once an OT is comfortable with administration of and competent with this assessment, it will take approximately 40 minutes to administer (Burns & Levy, 2006; Levy & Burns, 2011).

Additional assessments may be organized into categories including occupational performance, cognitive performance skills, and affective performance skills. Among the assessments to measure performance in ADL and IADL tasks are the Routine Task Inventory, the Kettle Test, the Assessment of Motor and Process Skills, and the Functional Independence Measure. Assessments that address cognition include Global Deterioration Scale, Allen Cognitive Level Screen, and the Mini-Mental State Examination (Hartman-Maeir, Harel, & Katz, 2009; Law, Baum, & Dunn, 2001). In order to measure affect, the Geriatric Depression Scale can be used (Greenberg, 2012).

Educational approaches for the caregiver at the various levels is addressed in this project. Education has a strong impact on helping individuals
and their caregivers understand what to expect and how to best deal with situations that will arise in the future. In this scholarly project, the authors incorporated the best strategies to help others understand the cognitive, physical, and behavioral changes that can occur with dementia. It is difficult to educate individuals with dementia, therefore the focus of education moves from providing strategies to maintain independence to promoting the highest QoL for the individual. Education is mostly provided for caregivers so that they may understand the progression of the disease and plan for the best care of the individual.

The authors of this scholarly project have developed a manual around the concepts of the CDRM in order to create comprehensive occupational therapy approaches to use with individuals with dementia. This manual will allow OTs to select the best assessment for the individual based on current skills in order to develop strategies to incorporate interventions into an individual’s daily life to increase the overall QoL of the individual. The occupational therapy approaches will also allow caregivers to be a part of the process as much as possible through the use of different education and training strategies. The following pages present the actual product that will be utilized by OTs who have limited experience working in skilled dementia care units.
The Role of Occupational Therapy in Skilled Dementia Care:

A Manual for Improving Quality of Life

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The Role of Occupational Therapy in Skilled Dementia Care:
A Manual for Improving Quality of Life

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Description of the Manual

Purpose

Although occupational therapists (OTs) spend time in school learning how to provide care to people with dementia, many OTs do not feel competent or confident in their current skills. This has been found to be a problem worldwide (Bennett, Shand & Liddle, 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Bennett et al. (2011) found that 53% of OTs practicing in Australia are not at all, or are minimally, confident in their knowledge of working with people with dementia. Almost 92% of people surveyed by Bennett et al. (2011) stated that they required further education on working with this population. This is a manual that provides OTs with a guide to the therapy process when working with individuals with dementia.

The purpose of this manual is to provide OTs with evaluation resources and intervention ideas to implement at their skilled dementia care facility. These approaches correlate with the levels of dementia as defined by the cognitive disabilities-reconsidered model [CDRM] (Burns & Levy, 2006; Levy & Burns, 2011). The authors of this manual have organized the cognitive levels to be congruent with the Occupational Therapy Practice Framework: Domain and Process (American Occupational Therapy Association [AOTA], 2008). The areas addressed are areas of occupation, performance skills, and client factors (AOTA, 2008). The organizational framework presented in the product considers individuals’ expected occupational performance and provide interventions to
accommodate and help maintain their functional level. The interventions provided are designed to support quality of life (QoL) among people with dementia.
Justification from the Literature

The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with having dementia. The Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (American Psychiatric Association, 2000), defines dementia as a disorder that results in a change in cognitive processes, with memory being the most affected area. There are many different types of dementia, but all have similar signs and symptoms. These can be further defined as behavioral, cognitive, or neuropsychiatric. As dementia progresses, an individual’s ability to be independent is compromised. Difficulties begin to arise in many areas of occupation including activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest and sleep, work, leisure, and social participation (AOTA, 2008).

As dementia progresses, individuals may choose to relocate to alternative living arrangements, such as assisted living or skilled nursing environments. Residents on a specialized dementia care unit tend to be treated with care that is catered to their specific needs more frequently than residents who are in a nursing home (Luo et al., 2010). At times, however, staff may resort to using physical restraints and medications when an individual’s behavior is deemed problematic (Ballalle, Jayalath, Shankar, Ashaye, 2010). Use of physical restraints and medications can have detrimental consequences such as injuries, isolation, and depression (Ballalle et al., 2010).
Researchers described multiple alternative interventions that are helpful for managing disruptive behaviors and foster QoL. To decrease neuropsychiatric symptoms and disruptive behaviors, it has been reported that multisensory interventions such as tactile, manipulative, aromatherapy, or a Snoezelen approach are favorable approaches (Padilla, 2011; Staal et al., 2007; Lin, Chan, Ng, & Lam, 2007). Interventions that are tailored to the individual’s needs have had a greater impact on promoting positive behavior and QoL (Tilly & Reed, 2008).

Occupational therapists are able to work with people with dementia at any stage of the disease. It was suggested by Wood, Womack, and Hooper (2009) that OTs may be able to create and provide organized activities for residents in an Alzheimer’s disease special care unit.
How to Use

This manual is designed as a guide for understanding dementia conducting appropriate evaluations, and developing interventions that promote occupational performance and QoL. This manual is organized into four main sections:

Introduction
- Brief introduction to the manual
- Population served by this manual
- Overview of the cognitive disabilities-reconsidered model

Section I: Types of Dementia
- Describes the types of dementia with common signs and symptoms
- Explains the three types of signs and symptoms (behavioral, cognitive, and neuropsychiatric)

Section II: The CDRM (Burns & Levy, 2006)
- Describes each of the six levels of cognitive ability
- Describes expected occupational performance for each level
- Offers general approaches that work well with each cognitive level

Section III: Evaluations
- Cognitive Performance Test (CPT)
- Other assessments that measure occupational performance
- Other assessments that measure cognitive performance skills
- Assessments that measure affective performance skills

Section IV: Interventions
- Intervention ideas for affective skill components of each level of the cognitive disabilities-reconsidered model
- Intervention types include sensory, ADL/IADL, cognitive, environmental, leisure, social, productivity, and positioning
Introduction

The authors of this manual have created it to be used by OTs within a skilled dementia care unit. This manual has been divided into sections that address signs and symptoms of dementia (Section I), the CDRM (Section II), assessments to be used with individuals with dementia (Section III), and interventions to be utilized at the various levels of dementia (Section IV).

The CDRM is the model that guided the process of creating this manual. This model was developed by Theressa Burns and Linda Levy as a continuation of the Allen’s Cognitive Disabilities Model (Burns & Levy, 2006; Levy & Burns, 2011). There are six cognitive levels that range from no cognitive impairment to severe cognitive impairment. The cognitive levels are further defined in Section II of this manual.
Section I
Types of Dementia

The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with having dementia. There are multiple types, including Alzheimer’s Disease (AD), vascular dementia, frontotemporal dementia, and Lewy Bodies dementia. Each type of dementia has signs and symptoms that are the hallmark for that specific type, but there are commonalities between signs and symptoms. Table 4.1 describes the common signs and symptoms associated with all types of dementia. These include behavioral, cognitive, and neuropsychiatric symptoms. Table 4.2 describes the four most common types of dementia diagnosed, with the hallmark signs of that type.
There are several signs and symptoms that may indicate an individual has some form of dementia. Symptoms can interrupt the individual’s ability to succeed in daily living tasks. The type of dementia that is diagnosed is determined by the signs and symptoms that the individual displays. The types of signs and symptoms are categorized as behavioral, neuropsychiatric, and cognitive.

Table 4.1 Signs and Symptoms of Dementia

<table>
<thead>
<tr>
<th>Behavioral</th>
<th>Cognitive</th>
<th>Neuropsychiatric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wandering</td>
<td>Memory impairment</td>
<td>Delusions</td>
</tr>
<tr>
<td>Barriers to completing ADLs and IADLs</td>
<td>Unable to learn new information</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>Engaging in activities with no defined purpose</td>
<td>Difficulty with interpreting information</td>
<td>Agitation</td>
</tr>
<tr>
<td>Aggression</td>
<td>Disruption in understanding of visual-spatial, visual-perceptual, and language-based topics</td>
<td>Depression</td>
</tr>
<tr>
<td>Disorganized thoughts</td>
<td></td>
<td>Anxiety</td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
<td>Elation</td>
</tr>
</tbody>
</table>

Behavioral symptoms are directly observable and may hinder the individual’s ability to complete daily activities. One of the hallmark cognitive signs of dementia is memory impairment (American Psychiatric Association, 2000). As the disease progresses, the most change occurs in this area. According to Okura

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et al. (2010), examples of neuropsychiatric symptoms are “delusions, hallucinations, agitation, depression, anxiety, elation, apathy, disinhibition, irritability, and aberrant motor behavior” (p. 330). Neuropsychiatric symptoms are most commonly treated with medications currently.
There are several different types of dementia. These include AD, vascular dementia, frontotemporal dementia, and Lewy bodies dementia.

**Table 4.2 Types of Dementia**

<table>
<thead>
<tr>
<th>Alzheimer's Disease</th>
<th>Vascular Dementia</th>
<th>Frontotemporal Dementia</th>
<th>Lewy Bodies Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most prevalent type of dementia</td>
<td>Associated with heart attack or stroke</td>
<td>Also called Pick's disease</td>
<td>Symptoms similar to symptoms of Parkinson's Disease</td>
</tr>
<tr>
<td>Disruption in memory, problem-solving</td>
<td>Poor judgement</td>
<td>Speech loss</td>
<td>Muscle rigidity</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>Inability to plan ahead</td>
<td>Difference in personality and behavior</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>Confusion in familiar places</td>
<td>Risk factors include high cholesterol, high blood pressure, and being diabetic</td>
<td>Neglect in hygiene</td>
<td>Changes in autonomic functioning</td>
</tr>
<tr>
<td>Poor judgement</td>
<td></td>
<td>Changes in muscle tone</td>
<td>Problems with sleep habits</td>
</tr>
<tr>
<td>Difficulty with communication and visual processing</td>
<td>Changes in mood, including apathy and depression</td>
<td>Unaware of social boundaries</td>
<td></td>
</tr>
<tr>
<td>Changes in mood, including apathy and depression</td>
<td></td>
<td>Inability to connect meanings to words</td>
<td></td>
</tr>
</tbody>
</table>

Alzheimer's disease is the most prevalent type of dementia, affecting 5.4 million individuals in the United States currently (Thies & Bleiler, 2012).

Alzheimer's disease is characterized by the brain's inability to form new memories (Thies & Bleiler, 2012). An individual with AD is often diagnosed by the symptoms displayed. These symptoms may include disruption in memory, problem solving, withdrawal, confusion in similar places, and poor judgment, and may lead to an individual experiencing difficulty with communicating, visual processing, and problem-solving (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012).
Vascular dementia is a type of dementia that is caused from a decrease in blood flow to the brain due to a blockage in a blood vessel (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012). This type of dementia is also associated with either a heart attack or a stroke, which can occur unexpectedly. Symptoms that may be displayed are poor judgment or the inability to plan ahead (Weatherhead & Courtney, 2012).

According to Shagam (2009), frontotemporal dementia is caused by brain atrophy. This affects the frontal and temporal lobes in the brain. Frontotemporal dementia is a rare type of dementia, and is also referred to as Pick’s disease (Robinson, 2009; Shagam, 2009). Frontotemporal dementia is diagnosed by symptoms of speech loss, difference in personality and behavior, hygiene neglect, change in muscle tone, and being unaware of social boundaries (Shagam, 2009). Inability to connect meanings to words is often the indication that the individual has frontotemporal dementia (Shagam, 2009).

Shagam (2009) describes Lewy bodies dementia as a type of dementia that impacts an individual’s cognition and behavior. Symptoms displayed are similar to an individual diagnosed with Parkinson’s disease. Among the symptoms is muscle rigidity (Thies & Bleiler, 2012). Other symptoms common in individuals with Lewy bodies dementia include hallucinations, changes in autonomic function and problems with sleep habits (Robinson, 2009; Shagam, 2009; Thies & Bleiler, 2012).

In addition to the types of dementia explained in table 4.2, there are several other types of dementia that are less common. These are Huntington’s
disease, Wernicke-Korsakoff Syndrome, mixed dementia, and metabolic dementia (Alzheimer’s Association, 2012; Bonder & Bello-Haas, 2009). Huntington’s disease is caused by a defect in a gene which causes the resident to exhibit symptoms of irritability, depression, movements that are not voluntary, and changes in mood (Alzheimer’s Association, 2012). Wernicke-Korsakoff Syndrome is most commonly caused from chronic misuse of alcohol, and the hallmark symptom with this type of dementia is severe memory impairment (Alzheimer’s Association, 2012). Mixed dementia is possibly more common than previously thought (Alzheimer’s Association, 2012). It is characterized as having symptoms from multiple types of dementia such as AD and vascular dementia (Alzheimer’s Association, 2012). Finally, metabolic dementia is caused from an imbalance in electrolytes and from thyroid deficiency (Bonder & Bello-Haas, 2009). One of the common symptoms is confusion (Bonder & Bello-Haas, 2009).
Section II

The Cognitive Disabilities-Reconsidered Model

The model used to guide this manual is the CDRM (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). This model was created by Theresa Burns and Linda Levy, and is a continuation of Allen’s cognitive disabilities model [CD] (Burns & Levy, 2006; Levy & Burns, 2011). Burns and Levy (2006) have further validated the CD model created by incorporating new research and knowledge on the cognitive limitations that occur in the presence of dementia (Cole & Tufano, 2008). While Allen’s CD model targets populations with mental health conditions, the CDRM uses the CD constructs but targets populations with dementia. The CDRM relates the impairments in neurocognitive functioning to the person’s ability to perform daily occupations (Burns & Levy, 2006). The authors of the CDRM organized dementia into six functional levels based on the cognitive processing abilities of the individual (Burns & Levy, 2006; Cole & Tufano, 2008; Levy & Burns, 2011). The authors of this manual have used these levels to create interventions focused on promoting and maintaining the skills expected at each level. The product is further organized by each level into a user-friendly chart that describes behaviors and skills at each level, as well as broad intervention ideas.

The CDRM is the best occupational therapy model to use because it relates the impairments in neurocognitive functioning to the person’s occupational performance and specifically targets people with dementia (Burns & Levy, 2006). This model takes into account the abilities of the individual at each
level of dementia, which helps guide OTs in the intervention planning process. Table 4.3 through 4.8 describe the functional abilities and broad intervention ideas for each cognitive level.
Table 4.3 Planned Actions

<table>
<thead>
<tr>
<th>Level 6</th>
<th>Planned Actions</th>
<th>Description</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Cognitive disability is nonexistent</td>
<td>- Able to learn through verbal and written methods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Able to maintain attention to tasks, despite distractions</td>
<td>- Able to learn complex procedures and strategies, and will be able to retain information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- All types of memory are intact</td>
<td>- Able to learn new activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Information is easily recalled</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Able to monitor and control behavior</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- New learning is possible</td>
<td></td>
</tr>
</tbody>
</table>

When an individual receives the highest score of level six, this shows that the person does not have any cognitive disabilities (Burns & Levy, 2006). This person is able to maintain attention to a task, even when distractions are present. All types of memory are intact, and information is easily recalled. New learning is possible at this level, and the individual is able to monitor and control behavior (Burns & Levy, 2006).
At level five, the rate at which complex tasks are completed slows due to impairments in semantic and episodic memory, but the cognitive impairment is not yet noticeable at the higher end of the level (Burns & Levy, 2006; Levy & Burns, 2011). Maintaining attention when faced with distractions becomes difficult, as does understanding abstract cues. Noticeable changes can be found in problem-solving, reasoning, judgement, and planning ahead. The most common and visible issues at this level are impairment in episodic memory recall, and visual-spatial and language functioning. A person functioning at a
level five will have difficulties completing complex ADLs and IADLs, especially when in the lower range of the level (Burns & Levy, 2006; Levy & Burns, 2011).
Table 4.5 Goal-Directed Actions

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Description of 4.5</th>
<th>Description of 4.0</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal-Directed Actions</td>
<td>Severe impairment in executive cognitive functions, especially with problem-solving and divided attention</td>
<td>Decrease in ability to think abstractly</td>
<td>Use many cues, especially within the environment</td>
</tr>
<tr>
<td></td>
<td>- Makes errors when completing complex tasks due to inability to manage details</td>
<td>- Person uses physical cues to complete familiar tasks</td>
<td>- Assess ADLs, IADLs, and ability to live independently</td>
</tr>
<tr>
<td></td>
<td>- Decline in ability to initiate and complete ADLs</td>
<td>- Unable to complete IADLs independently</td>
<td>- Modification of environment and task simplification</td>
</tr>
<tr>
<td></td>
<td>- Safety risk with living alone and driving</td>
<td>- Decline in quality of ADL performance</td>
<td>- Educate caregivers on functional decline</td>
</tr>
<tr>
<td></td>
<td>- Assistance needed for IADLs and ADLs, families may begin to contemplate alternate living situations</td>
<td>- Person is unable to live safely within their own environment</td>
<td>- Do not use home programming, as it will be difficult to complete outside of therapy</td>
</tr>
</tbody>
</table>

Significant impairments in semantic and episodic recall can be expected at cognitive level four (Burns & Levy, 2006; Levy & Burns, 2011). The person may
have difficulty orienting to person and time, and is easily distracted. There is obvious impairment in executive functioning at this level. Managing small details of ADLs and IADLs becomes an issue, as well as initiating tasks. At a level four, a person may be able to live alone, but requires assistance for safety. At the lower end of the level, the person experiences difficulty thinking abstractly and may not be safe to live independently any longer; therefore, assisted living placement may be recommended at this level (Burns & Levy, 2006; Levy & Burns, 2011).
By cognitive level three, a person is no longer able to understand outcomes of an activity or be goal-directed (Burns & Levy, 2006; Levy & Burns, 2011). The person focuses on the object, instead of the outcome. The thought process is not concrete, and the person requires cues and set-up to complete Manual Actions.

<table>
<thead>
<tr>
<th>Level 3 Manual Actions</th>
<th>Description of 3.5</th>
<th>Description of 3.0</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Thought processes are concrete</td>
<td>- No longer able to understand outcomes of an activity</td>
<td>- Cues needed to sequence and sustain attention to activities</td>
<td></td>
</tr>
<tr>
<td>- Set-up and cueing during completion of ADLs</td>
<td>- Driven by tactile exploration</td>
<td>- Caregiver education</td>
<td></td>
</tr>
<tr>
<td>- Requires 24 hour care</td>
<td>- Thought processes are object-centered</td>
<td>- Assess environment for safety and potential fall risks</td>
<td></td>
</tr>
<tr>
<td>- Residential placement is common</td>
<td>- A tendency to perseverate on tasks</td>
<td>- Behavior management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Higher risk of falls</td>
<td>- Address possible eating difficulties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- May become restless, agitated, aggressive, or display other neuropsychiatric symptoms</td>
<td>- Create bladder or bowel programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Needs increased cues in completing occupations</td>
<td>- Simplify ADL routine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Requires 1:1 supervision and assistance during ADLs</td>
<td>- Sensory interventions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Provide step-by-step instructions to complete occupations using demonstration and simple language</td>
<td></td>
</tr>
</tbody>
</table>
ADLs. The person is driven by tactile exploration and has a tendency to perseverate on tasks. At a cognitive level of three a person is not safe to live independently due to dependence on others for medication management and for set-up and assistance with ADLs. This person is at a higher risk of falls, as movement and ambulation are affected. At the lower end of the level, the person is more likely to exhibit aggression, agitation, restlessness, and other neuropsychiatric symptoms (Burns & Levy, 2006; Levy & Burns, 2011).
### Table 4.7 Postural Actions

<table>
<thead>
<tr>
<th>Level 2</th>
<th>Postural Actions</th>
<th>Description of 2.5</th>
<th>Description of 2.0</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Actions are spontaneous or gross motor movements that are imitated</td>
<td>- May not respond to stimuli consistently</td>
<td>- Create caregiver programs to meet the resident’s basic needs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Attention focuses on sound, touch, and movement</td>
<td>- Severe decline in functional abilities</td>
<td>- Provide training and education for caregivers and family through in-service presentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Unable to use objects in meaningful ways</td>
<td>- May exhibit repetitive speech</td>
<td>- Swallowing assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Slow while moving and has trouble maintaining balance</td>
<td>- Slowing of reflexes</td>
<td>- Provide finger foods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Disruptive behaviors including hitting, yelling, and grabbing at people</td>
<td></td>
<td>- Provide one item of food at a time with only one eating utensil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Requires total assist for ADLs</td>
<td></td>
<td>- Create positioning and pressure relief program</td>
</tr>
</tbody>
</table>

By cognitive level two, a person’s attention shifts to focus on internal stimuli instead of external (Burns & Levy, 2006; Levy & Burns, 2011). Actions are
spontaneous or gross motor movements that are imitated. The only functioning memory stores are procedural. At cognitive level two, a person’s attention focuses on sound, touch, and movement, and the person is unable to use objects in meaningful ways. This person may be slow while moving and has trouble maintaining balance. Beginning at this level and continuing into the lowest level is restless behavior and disruptive behaviors including hitting, yelling, and grabbing at people. Swearing, repetitive speech, and singing are the modes of communication available. The person requires total assist for ADLs at this level. Occupational therapy interventions begin to focus on family education and caregiver training (Burns & Levy, 2006; Levy & Burns, 2011).
At the lowest cognitive level, level one, the person responds to internal stimuli exclusively (Burns & Levy, 2006; Levy & Burns, 2011). This person may appear to be unconscious, and only responds to painful stimuli. This person may be rigid during cares, and is completely dependent for all cares. It is common at this stage to face complications such as aspiration pneumonia, urinary tract infections, pressure sores, and malnutrition. These complications are what lead to death; therefore occupational therapy at this level becomes centered on palliative care (Burns & Levy, 2006; Levy & Burns, 2011).

**Table 4.8 Automatic Actions**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Description</th>
<th>Interventions</th>
</tr>
</thead>
</table>
| Automatic Actions | - Responds to internal stimuli exclusively  
- Does not respond except to painful stimuli  
- Complications such as aspiration pneumonia, urinary tract infections, pressure sores, and malnutrition are common  
- Complications are what lead to death  
- Requires positioning techniques to prevent skin breakdown | - Provide emotional support for resident and family  
- Educate family on end-of-life choices, including hospice  
- Create positioning program  
- Promote comfort to maintain quality of life |
Evaluations

Prior to implementing interventions, the OT must complete a comprehensive evaluation. The information gained from these evaluations will provide the OT with knowledge on the skills and abilities of the resident, and will help the OT plan appropriate interventions. The authors of this manual have provided evaluations that are congruent with the population of people with dementia. The authors have developed tables of possible evaluations and organized them based on what is measured by each assessment. In order to meet the needs of the resident, the evaluations have been created to reflect domains identified in the *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2008). These domains include occupational performance, cognitive performance skills, and affective performance skills. The tables presented in this section may be used as a quick reference when planning the evaluation session with a specific resident.

The CPT is the primary assessment that correlates with the CDRM, which is the model guiding this manual (Burns & Levy, 2006; Levy & Burns, 2011). This is a standardized assessment that measures an individual’s working memory and executive function processing. This is done through the observation of the individual’s ability to perform common ADL and IADL tasks (Burns & Levy, 2006; Levy & Burns, 2011). Multiple researchers have concluded that the CPT has strong validity and reliability (Bares, 1998; Burns, Mortimer, & Merchak, 2004; Jennings-Pikey, 2001; Schaber et al., 2013). When measuring ADL tasks, there is a strong relationship between functional performance and cognition; therefore,
using the CPT is congruent with measuring ADL tasks cause there is a strong relationship between the two (Schaber et al., 2013).

There are seven subtests within the CPT (Burns & Levy, 2006; Levy & Burns, 2011). They address management of medication, shopping, making toast, using the phone, washing one’s hands, dressing, and traveling. Due to the assessment being standardized, there is a set way to administer this assessment. There is a script that one must follow for giving directions, and specific items must be included in the activities. This assessment is designed to focus on the individual’s ability to process written and verbal instructions for multi-step activities. The OT is able to provide the individual with cues and prompts, if needed. Once the OT becomes comfortable and competent with the administration process, it can be expected that the assessment will take approximately 40 minutes to complete (Burns & Levy, 2006; Levy & Burns, 2011).

The scoring of the CPT directly correlates to the levels of dementia as defined in the CDRM (Burns & Levy, 2006; Levy & Burns, 2011). To aid in scoring, a table of descriptions of performance capabilities at each level are provided within the script. To calculate the individual’s overall cognitive level, the sub scores of each subtest are averaged (Burns & Levy, 2006; Levy & Burns, 2011).

Additional assessments may be organized into categories including occupational performance, cognitive performance skills, and affective performance skills. Among the assessments to measure performance in ADL in
IADL tasks are the Routine Task Inventory, the Kettle Test, the Assessment of Motor and Process Skills, and the Functional Independence Measure. Assessments that address cognition include Global Deterioration Scale, Allen Cognitive Level, and the Mini-Mental State Examination. In order to measure affect, the Geriatric Depression Scale can be used.
Assessments of Occupational Performance

The Routine Task Inventory (RTI-2) assessment was created by Claudia Allen. This assessment measures performance of ADLs by observation, caregiver's report, and self-report (Asher, 2007). This assessment includes four categories that are further organized into eight activities. The four categories addressed are self-awareness, occupational role disability, situational awareness, and social role disability. The individual's final score is indicative of his or her cognitive level (Asher, 2007).

The Kettle Test is an assessment that uses an IADL task to measure cognitive functioning (Hartman-Maeir, Harel, & Katz, 2009). The individual is asked to make two hot beverages using an electric kettle. The individual is rated based on 13 steps that are in the process. The protocol defines the steps the therapist must use to administer the assessment, as well as cues that may be provided should the individual need it. The final score of the assessment can be from 0 to 52, and can be used to judge the individual's level of independence (Hartman-Maeir et al., 2009).

The Assessment of Motor and Process Skills (AMPS) is an observation assessment that measures the individual's ability to perform ADLs and IADLs (Asher, 2007; Law, Baum & Dunn, 2001). The individual must complete two or three of a possible 56 ADL and IADL tasks. The therapist rates the individual's performance based on the motor and processing skills observed. A four-point rating scale is used, ranging from deficit to competent skill. This assessment
takes approximately 40 minutes to complete, and one must have special training to administer it (Asher, 2007; Law et al., 2001).

The Functional Independence Measure (FIM) is designed to measure an individual's ability to complete ADLs (Asher, 2007; Law et al., 2001). The scores for each observation range from one to seven, or complete dependence to complete independence. The areas that this assessment focuses on are self-care, bowel and bladder control, locomotion, mobility, social cognition, and communication. This assessment is not standardized, and does not include norms, but is an interdisciplinary assessment (Asher, 2007; Law et al., 2001).
Table 4.9 focuses on assessments that address occupational performance and measures the individual's ability to perform ADLs and IADLs. These assessments include the Routine Task Inventory, the Kettle Test, Assessment of Motor and Process Skills, and the Functional Independence Measure.

**Table 4.9 Assessments of Occupational Performance**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Purpose</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine Task Inventory (RTI-2)</td>
<td>To measure the individual’s ability to perform ADLs through observation and report either by self or caregiver</td>
<td>Varies</td>
<td>Includes four areas: self-awareness, occupational role disability, situational awareness, and social role disability. There are eight activities that address each area. The individual's cognitive level is determined by the average of all subscores.</td>
</tr>
<tr>
<td>Kettle Test</td>
<td>To measure one’s cognitive functioning through observation of and IADL task.</td>
<td>Varies</td>
<td>The individual is rated based on 13 steps that are in the process of making a hot beverage. Steps are provided for how to administer the assessment, as well as cues that may be provided should the individual need it. The final score of the assessment can be from 0 to 52.</td>
</tr>
<tr>
<td>Assessment of Motor and Process Skills (AMPS)</td>
<td>To measure one’s ability to perform ADLs and IADLs through observation of a trained therapist.</td>
<td>30-40 minutes</td>
<td>The individual is asked to complete two to three ADL or IADL tasks from a list of 56. The therapist scores motor and processing skills based on observation of individual’s performance. The scoring ranges from 1-4, or deficient to competent.</td>
</tr>
<tr>
<td>Functional Independence Measure (FIM)</td>
<td>To measure one’s level of independence with ADLs through observation.</td>
<td>Varies for observation of skills</td>
<td>Includes six areas: self-care, bowel and bladder control, locomotion, mobility, social cognition, and communication. These areas are scored based on the individual’s ability to complete the task and range from completely dependent to completely independent.</td>
</tr>
</tbody>
</table>
Assessments of Cognitive Performance Skills

The Global Deterioration Scale is a rating scale that measures the individual’s progression of dementia and provides input to caregivers on functional level (Asher, 2007). The scores range from one to seven, and are equivalent to the cognitive stages. One must be trained to administer this assessment. It includes observation and interview to determine the individual’s current stage of dementia (Asher, 2007).

The Allen Cognitive Level Screen (ACLs) was developed by Claudia Allen and measures an individual’s cognitive functioning (Asher, 2007). It can aid in the intervention planning and goal setting process. This is a standardized assessment, and includes a kit to complete the assessment tasks. The individual is asked to complete three stitches; running, whip, and single cordovan. The running and whip stitch are demonstrated, but the single cordovan is completed without assistance. The individual is scored according to the cognitive levels, which are described in the kit booklet. These scores are based on how much assistance is needed with completing the stitches (Asher, 2007).

The Mini-Mental State Examination (MMSE) assesses cognitive performance through a questionnaire format (Asher, 2007). The assessment measures cognition in five areas: orientation, attention and calculation, recall, memory, and language. There are 11 questions on the questionnaire, for a total possible score of 30 (Asher, 2007).
Table 4.10 focuses on assessments that address an individual’s cognitive functioning. These assessments include the Cognitive Performance Test, Global Deterioration Scale, Allen Cognitive Level, and the Mini-Mental State Examination.

**Table 4.10 Assessments of Cognitive Performance Skills**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Purpose</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive Performance Test (CPT)</strong></td>
<td>To measure the individual’s working memory and executive function processing through observation of ADLs and IADLs</td>
<td>40-45 minutes with experience</td>
<td>Includes 7 subtests: toast, hand washing, telephone, shopping, dressing, traveling, and medication management. The individual's cognitive level is determined by the average of all subscores.</td>
</tr>
<tr>
<td><strong>Global Deterioration Scale</strong></td>
<td>To measure one’s stage of dementia through observation and interview.</td>
<td>30-45 minutes</td>
<td>The trained therapist observes the individual and interviews appropriate others to determine the stage of dementia on a one to seven scale.</td>
</tr>
<tr>
<td><strong>Allen Cognitive Levels Screen (ACLS)</strong></td>
<td>To measure one’s cognitive functioning through one’s ability to complete a leather sewing task.</td>
<td>20 minutes</td>
<td>The individual is given the leather piece and thread and asked to complete three stitches; running, whip, and single cordovan. The running and whip stitch are demonstrated before completing. The single cordovan must be completed based on completed examples. The scoring is based on the individual’s ability to complete the stitch work with given instructions. The score given is equivalent to the cognitive level.</td>
</tr>
<tr>
<td><strong>Mini-Mental State Examination (MMSE)</strong></td>
<td>To measure one’s cognitive performance through a questionnaire.</td>
<td>5-10 minutes</td>
<td>The therapist asks the individual the questions from 5 different areas: orientation, attention and calculation, recall, memory, and language. The answers are scored for up to a total of 30 points.</td>
</tr>
</tbody>
</table>


Assessment of Affective Performance Skills

The Geriatric Depression Scale (GDS) is a self-report measure that is a starting point to measure depression (Greenberg, 2012). The short form contains 15 questions, while the long form contains 30 questions. This assessment allows the individual to answer yes or no to the questions. A score of one point is given to each answer that more readily indicates depression. A score of five indicates further testing is needed, while a score of 10 almost always means that the individual has depression (Greenberg, 2012).

The authors of this manual have organized the assessments into three categories. They are assessments of occupational performance, cognitive performance skills, and affective performance skills. The authors provided charts as a quick-reference guide for OTs. The charts describe the assessment’s purpose, approximate length of time to administer and score, as well as an overall description of each assessment. These charts should be easily available to refer to when working with individuals with dementia.
Table 4.11 focuses on the assessment that address an individual’s affective performance skills. This assessment can be used to measure one’s depression level in order to measure QoL of the individual.

Table 4.11 Assessment of Affective Performance Skills

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Purpose</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric Depression Scale</td>
<td>To measure one’s level of depression through a self-rating.</td>
<td>10 minutes</td>
<td>The therapist has the individual complete this self-rating form with yes or no questions. The therapist then scores the individual’s depression level based on each answer that more readily indicates depression. A score of 5 or more indicates the need for further assessment, while a score of 10 indicates high likelihood of depression.</td>
</tr>
</tbody>
</table>

The evaluations described above measure a resident’s occupational performance, cognitive performance skills, and affective performance skills. The OT does not have to complete all assessments with each resident, but should use these tables as a guide for choosing the most appropriate evaluations to measure the resident’s skills and abilities. Choosing evaluations that are appropriate for the resident will increase QoL.

The assessments described in tables 4.9 through 4.11 can be obtained through various sources. Refer to Appendix C for the full listing of opportunities available for purchase or download. The assessments are organized by their category to help the OT locate them more efficiently.
Interventions

The results from the evaluation process will assist the OT in deciding the most appropriate interventions for the resident. The interventions have been divided into categories based on areas of need addressed in a review of literature completed by the authors. These areas include sensory, ADL/IADL, cognitive, environmental, leisure, social, productivity, and positioning. Behavior approaches are addressed throughout each area. Each area is addressed based on how applicable it is for that cognitive level. The authors of this manual have used these levels to create interventions focused on promoting and maintaining the skills expected at each level. The manual is further organized into easy-to-read intervention tables based on each cognitive level. The levels are divided into the categories with description of interventions that are suitable to that level. Each description begins on a new page and is organized by cognitive level to help the OT organize and select appropriate activities. The tables are color-coded at each level for easier readability. Level five is blue, four is red, three is green, two is purple, and one is sky blue.

The suggested interventions may be utilized by OTs in multiple ways. First, they can include the interventions in individual occupational therapy sessions. For example, if a resident has been admitted to the skilled nursing facility recently, it would be beneficial to see the resident formally in occupational therapy to promote occupational performance during the transition to the new facility. The OT would work with the resident to establish patterns (habits, routines, and roles), occupations, and environmental modifications that promote
performance. The OT would then create a functional maintenance program that would communicate the primary recommendations to skilled dementia care staff.

Second, the OT would also serve as a consultant to administrative, activity, and caregiving staff members. For example, the OT may consult with administration about environmental changes, such as building constructs that promote spatial orientation so residents can ambulate freely without getting lost but can also find their way back to their rooms.

In the following section, rationale for each intervention category is provided prior to the descriptions of the interventions in order to explain why they are important for skilled dementia care. After the rationale, interventions are then described under each cognitive level. This organization allows the OT to consider all the types of interventions for each resident according to the individual’s cognitive level.
Rationale for Intervention Categories

_Sensory_

Often, disruptive behaviors such as apathy and aggression occur as a signal that the person’s needs are not being met (Staal et al., 2007). Sensory interventions are a way to help reduce the disruptive behaviors caused by one’s needs not being met. Sensory interventions can aim to either calm or stimulate.

Sensory interventions can include a variety of materials, and may even be set up in the form of a sensory room that one may visit when needed (Martin & Suane, 2012). The most common objects used include tactile manipulatives, weighted objects, and objects that produce light or sound (Martin & Suane, 2012). Padilla (2011) stated that using multisensory interventions can be effective in reducing neuropsychiatric symptoms. Aromatherapy and listening to ambient music were among the interventions discussed (Padilla, 2011). Staal et al. (2007) found that using a multi-sensory behavior therapy approach helped to decrease the frequency of disruptive behaviors. Interestingly, it was also found that people who participated in this intervention had increased independence in completing ADLs (Staal et al., 2007). Occupational therapists can provide sensory interventions to calm and promote a healthy sleep routine and also reduce confusion that can result in aggressive behaviors.

_ADL/IADL_

As an individual’s functional abilities decrease, ADLs are affected. The authors of the _Occupational Therapy Practice Framework: Domain and Process_ indicated that ADLs include bathing and showering, bowel and bladder management, dressing, eating, feeding, functional mobility, personal device care,
personal hygiene and grooming, sexual activity, and toilet hygiene (AOTA, 2008). The first areas of occupation that are impacted by dementia are ADLs and IADLs (Burns & Levy, 2006). According to Eustace et al. (2002) and Okura et al. (2010), individuals with dementia have a greater chance of experiencing barriers to occupational performance in ADLs and IADLs. Occupational therapists can provide interventions to help the individual maintain independence and participation in occupational performance for as long as possible. Occupational performance has been linked to an increased QoL. Providing interventions that are occupation-based and meaningful to the resident can increase QoL (Loscheider & Roed, 2011).

Cognitive

One of the hallmark signs of dementia is memory impairment (American Psychiatric Association, 2000) and other cognitive impairments. As dementia progresses, the individual becomes more dependent on others in order to perform occupations. Occupational therapists can provide interventions that maintain the cognitive skills and abilities associated with each cognitive level. Utilizing arts and crafts as interventions provides cognitive stimulation (Jensen & Padilla, 2011).

Environment

When working with individuals who have dementia, it is important to have an environment that is supportive for the patient. Adapting one’s environment can promote the highest QoL possible (Ettema et al., 2005). In contrast, an environment that does not meet internal needs can induce confusion, which is
often presented as disruptive behaviors that jeopardize QoL (Staal et al., 2007). Educating staff members on how to modify an environment can be beneficial in managing disruptive behaviors and allow residents to utilize problem-solving skills (Arbesman & Lieberman, 2011; Jensen & Padilla, 2011). Arbesman and Lieberman (2011) concluded that adapting the individual's environment may be more beneficial than utilizing restraints for managing disruptive behaviors. A variety of interventions can be used to manage the disruptive behaviors associated with these unmet needs. These interventions could include environmental modifications or sensory-related interventions. Occupational therapists are trained to examine how the environments affect functioning and can help design the environment for a long-term care facility (Thompson, 2013). The OT can help create a sensory room with items that stimulate or relax, or provide a safe environment that promotes the highest level of independence possible with activities.

Leisure

The Occupational Therapy Practice Framework: Domain and Process defines leisure as being made up of leisure exploration and leisure participation (AOTA, 2008). As a person’s functional abilities decline and the disease progresses, the ability to work is compromised (Blacker, Broadhurst, & Teixeira, 2008). It is suggested that leisure activities take the place of work (Blacker et al., 2008). Occupational therapists can help promote healthy leisure by exploring one’s interests and adapting an activity to the individual’s abilities. Kolanowski, Litaker, Buettner, Moeller, and Costa (2011) recommend matching activities and
interventions with an individual’s personal interests, as this increases effectiveness of the intervention. It is also mentioned by Blacker et al. (2008) that specific leisure activities can stimulate other performance skills, such as fine motor manipulation and motor planning skills. Arbesman & Lieberman (2011) concluded that providing residents with exercise interventions and providing physical training are more beneficial than utilizing restraints. Exercise and motor interventions focus on increasing a greater awareness of safety prevention (Jensen & Padilla, 2011). Leisure may be a tool to address additional goals in the area of social participation (Blacker et al., 2008).

Social

Social participation, as described by the *Occupational Therapy Practice Framework: Domain and Process*, can take place at the community, family, or peer/friend level (AOTA, 2008). Individuals with dementia tend to seclude themselves in their room, which decreases the opportunity for social interaction (AOTA, 2008; Wood, Womack, & Hooper, 2009). Occupational therapists can provide organized activities to increase social participation among this population (Wood et al., 2009). Letts et al. (2011) stated that with increased socialization, individuals experience a higher QoL. This was seen in a study completed by Wang, Holliday, and Fernie (2009). When an individual who was unable to ambulate independently was given the chance to use power mobility, he increased his time spent socializing and being around others (Wang et al., 2009).
Productivity

Individuals with dementia have a greater chance of experiencing barriers in daily life (Eustace et al., 2002; Okura et al., 2010). Residents of skilled dementia care facilities are often observed wandering or engaging in activities with no defined purpose, which can have a negative impact on QoL. Occupational therapists can provide activities that focus on past roles and have a more defined purpose. Productivity will contribute to the resident’s sense of integrity and will allow individuals to feel as though they are contributing despite having significant memory deficits.

Positioning

Luo et al. (2010) found that physical restraints are equally likely to be used in special care units (SCUs), nursing homes, and nursing homes with SCUs. Physical restraints can cause a decrease in one’s physical ability. A resident who is physically restrained can lose the ability to walk independently or make decisions independently (Luo et al., 2011). The use of restraints has a negative impact on QoL, and can lead to pressure sores if used for long periods of time (Luo et al., 2011). In addition, the OT can help develop positioning routines and can suggest positioning devices that promote occupational performance for the individual. This information on positioning can be taught to caregivers.
Residents functioning at this level will not show obvious changes in occupational performance of activities that are routine. They will be able to initiate and maintain attention to activities if there are limited distractions present. Noticeable changes can be found in problem-solving, reasoning, judgement, and planning ahead.

Precautions: A resident functioning at this level will have difficulties completing complex ADLs and IADLs. Tasks must be simplified, and use of abstract cues is not advised. Signs of anxiety may be present. Driving is not recommended at this level.
Sensory Interventions

Cognitive Level 5

□ Sensory relaxation
  o Provide calming techniques to decrease anxiety
    ▪ Scents such as lavender or vanilla
    ▪ Sounds such as nature or classical music
    ▪ Comfortable seating
    ▪ Soft lighting
      • Must have enough lighting for safe ambulation
      • Provide lighting that is not over-stimulating

□ Sensory stimulation
  o Play popular songs from their younger years, sing hymns and campfire songs
  o Cross arms, then cross arms with other arm on top
  o Drawings/Art
    ▪ “What do you see?”
    ▪ “What do you feel?”

□ Full body relaxation
  o Guided imagery
    ▪ Read scripts with residents sitting comfortably with eyes closed
    ▪ Avoid abstract ideas; instructions should be concrete in nature
  o Human touch
    ▪ Instruct on self-massage
    ▪ Provide handout with guidelines for self-massage
  o Progressive relaxation
    ▪ Provide handouts on techniques taught
    ▪ Deep breathing
    ▪ Muscle tension and relaxation

□ Handouts should be straight-forward and easy to follow
  o No complex ideas
  o Resident will benefit from concrete directions
  o Include pictures of activities with the instructions
ADL/IADL

Cognitive Level 5

☐ Meal routine
  o Encourage independence and normal routine
  o Assess for safety within kitchen
  o Provide cues and directions when preparing a new item

☐ Morning routine of dressing, bathing, grooming
  o Simplify tasks
  o Organize environment to support routine
    ▪ Keep things in similar places
    ▪ Do not reorganize items from familiar areas
    ▪ Use visual cue cards to help resident initiate tasks
    ▪ Can use some written words for cues

☐ Sexuality
  o Assess resident's needs
    ▪ Use check-list format
    ▪ Ask open-ended questions
      • “What questions or concerns do you have about sexuality?”
    ▪ Make a statement about possibility of addressing sexuality
      • “Some people notice aspects of sexuality change as time goes by. I am open to talking about these issues.”
  o PLISSIT Model
    ▪ Permission, limited information, specific suggestions, intensive therapy
      • OTs are able to address the first two areas: permission and limited information
  o Setting boundaries
    ▪ Inappropriate sexual comments or behavior by resident
      • May be his or her way of dealing with anxiety about the topic
      • May be sign that resident wants to or is ready to address sexuality
Sexuality, continued
   Setting boundaries, continued
       OT must be friendly but firm in setting boundaries for the session
       • Acknowledge resident’s feelings, and give permission to talk about further
       • Redirect resident to the activity
       • Must document threatening or abusive sexual behavior and report to supervisor or manager

IADL
   Simplify tasks involving budgeting and money management
   Simplify and promote medication management
   Assess skills needed for driving

Occupation-Based Kits (Loscheider & Roed, 2011)
   Setting the table
       Have individual use items in the kit to set the table for a specific amount of people
       • For example, if there are 6 settings provided, the person should be able to correctly identify items needed for three settings
       Have individual select a theme from the items provided to base the table around
       Monitor for correct use and placement of items, and cohesiveness of the chosen theme
   Shopping
       May need assistance with creating shopping list
       Able to locate coupons in newspaper based on grocery list provided
   Money Management
       May need assistance with managing budget, if still participating in this activity
       • Debit card may be beneficial
Cognitive Level 5

□ Games
  o Promote and maintain problem-solving, short-term memory, and divided attention
    ▪ May vary complexity of task to fit resident’s abilities
  o Memory games
    ▪ Matching pairs
    ▪ Guess Who
    ▪ Sudoku
    ▪ Battleship
  o Sequencing games
    ▪ Racko
    ▪ Phase 10
    ▪ Sequence
    ▪ Connect Four
    ▪ Solitaire

□ Puzzles
  o Able to do puzzles with some complexity
    ▪ Promotes problem-solving abilities
    ▪ 100+ pieces
    ▪ Pictures that are more abstract

□ Memory recall
  o Short-term memory
    ▪ Weekly events
    ▪ Pop culture trivia
    ▪ World events
  o Long-term memory
    ▪ Past family history
    ▪ Past historical events
    ▪ Childhood memories
- Arts and crafts
  - Knitting/Crochet
    - Able to use needles with no supervision
    - May need to simplify patterns
    - May need to limit the number of colors working with
    - Provide handouts if needed
  - Car models
    - Able to use without close supervision
    - Able to follow directions provided in model
    - May need to limit the amount of paint color options
- Thinking cards
  - Stimulating activities that can be done individually or in groups
  - Tongue twisters
  - Brainstorming
    - “Think of anything you can do with a paperclip”
  - Words that go together, like salt and pepper
  - Name things that are invisible
  - Do family history narratives
Environmental

Cognitive Level 5

- **Consult and educate on safety**
  - Home evaluation to assess safety and potential risks
  - Provide family/caregiver education

- **Sensory room**
  - Provide calming techniques to decrease anxiety
    - Scents such as lavender or vanilla
    - Sounds such as nature or classical music
    - Comfortable seating
    - Soft lighting
      - Must have enough lighting for safe ambulation
      - Provide lighting that is not over-stimulating

- **Help set-up environments**
  - Have resident bring in items from previous home that provide comfort and familiarity
    - Pictures of family, friends, and pets
    - Art work from individual’s home
    - Crafts completed by grandchildren
    - Furniture
  - Place picture of resident outside of room for person to locate easily
  - Simplify environment to decrease distractions
    - Remove televisions from group activity areas, or turn off during scheduled activities
    - Recommend painting areas of the unit such as sensory room
      - Get permission from administrators prior to painting
      - Want to use calming colors in community room, for example dining room, activity room, sensory room, etc.
      - Calming colors may include
        - Grays
        - Earth Tones
        - Mauve
        - Other tones that are soft and warm
Leisure

Cognitive Level 5

- **Recreation**
  - Gardening
    - Able to use tools
    - Can complete in natural environment without supervision
  - Cards/Games
  - Bingo
    - Able to complete on own in a group setting

- **Music**
  - Dancing
  - Playing instruments

- **Occupation-Based Kits (Loscheider & Roed, 2011)**
  - Exercise
    - Supervision may be needed if individual chooses to go for a walk in an unfamiliar area or gets distracted easily
    - Visual aids for new activities
  - Reading
    - Provide books with short stories or news articles
    - It may be easier to read books with larger print or pictures
  - Woodworking
    - Provide samples of projects already completed
    - May benefit from picture instructions
    - Provide projects that can be completed in 3 or 4 steps
Social

Cognitive Level 5

- **Reminiscence groups**
  - Provide different prompts to talk about in group
  - Encourage to share past experiences as they remember them

- **Wii games**
  - Bowling
    - May create “team bowling league”
    - Provide cues on what comes next

- **Outings**
  - Residents at this level can typically handle the extra sensory stimulation of going out in public with others
  - The OT will consult with family and activity department personnel about meaningful outings and any precautions specific to each resident
    - Church
    - Movies
    - Shopping
    - Community Events
    - Restaurants
    - Bowling

- **Card groups**
  - Games for individuals
    - Rummy
    - Cribbage
    - Kings in the Corner
  - Games for teams
    - Pinochle
    - Bunco
    - Bridge
    - Rook
Productivity

Cognitive Level 5

- **May still have the worker role at this level**
  - Educate on simplifying work tasks
  - Handouts on work duties to ensure efficient completion of tasks
  - Help resident to create memory aids

- **Home maintenance and management within the skilled dementia care unit**
  - Maintain daily routines
  - Monitor for safety risks with tasks
  - Let resident help with facility activities if meaningful to resident
    - Cleaning
    - Laundry
    - Wiping tables after meals

It is important at this stage to give residents opportunities to do meaningful work tasks when possible. Be careful to avoid situations in which residents could be used to do work that would normally be done by a paid employee on a regular basis.

Example: A resident who has good balance and mobility wants to shovel a light dusting of snow off the sidewalk. It would be meaningful and appropriate to support the resident to shovel the snow. In contrast, it would not be appropriate to expect the resident to shovel the sidewalk every time it snows.
Residents functioning at this level may present difficulties with orientation, and are easily distracted. They will need simple and concrete directions for activities, and respond best to verbal cues. They are unable to think of things in an abstract way, and will have trouble initiating and completing activities. They can still understand clear, short sentences. They also retain goal-orientation; therefore, they can perform a task for the purpose of completing the task.

Precautions: The resident will have difficulty with small details and initiating ADLs and IADLs. The resident will need assistance with tasks to ensure safety. Supervision is required with potentially harmful activities. The risk of experiencing delusions increases at this level. They may feel afraid of being hurt due to difficulty making sense of multiple environmental stimuli.
Sensory

Cognitive Level 4

☐ Sensory relaxation
  o Have different textures available for individual to touch
    ▪ Pillow or tactile board with multiple fabrics including
      - Fleece, flannel, or silk
    ▪ Blankets
    ▪ Weighted blankets and vests
    ▪ Provide objects to watch that move and are colorful
      - Bubble tower
      - Solar projector
    ▪ Provide music such as nature sounds and classical music
      - Sounds with talking is not recommended
  o Provide objects for repetitive movements
    ▪ Rocking chair
    ▪ Swing with back support
    ▪ Vibration mats
  o Provide an environment with soft lighting for relaxation
    ▪ Must have enough lighting for safe ambulation
    ▪ Provide lighting that is not over-stimulating
  o Comfortable seating
    ▪ Bean bag chairs
  o Paint the room calming colors
    ▪ Grays, blues, or mauve

☐ Full body relaxation
  o Human touch
    ▪ Provide simple and concrete instructions on how to implement pressure point relief
    ▪ Provide caregivers educational handouts on massage techniques for relaxation
  o Progressive Relaxation
    ▪ Deep breathing with simple, direct instructions
      - For example, “Take a deep breath, hold, now let it out slowly.”
□ Occupation-Based Kit (Loscheider & Roed, 2011)
  o Rest and Sleep
    ▪ May need cues to understand bedtime is near
    ▪ To prepare for bed, a warm bath may assist to calm the individual
    ▪ Follow individual’s bedtime routine
    ▪ May need cues for each step of routine, such as donning pajamas and brushing teeth
ADL/IADL

Cognitive Level 4

☐ **Meal routine**
  - Set-up materials needed for tasks within eye sight
  - Decrease distractions by providing only necessary items
  - Promote safety

☐ **Morning routine of dressing, bathing, grooming**
  - Set-up materials needed for tasks within eye sight
  - Decrease distractions by providing only necessary items
  - Provide directions that are concrete and simple
  - Promote daily routines as performed at home
  - Provide cues to eliminate errors
  - Promote safety

☐ **Sexuality**
  - PLISSIT Model
    - Permission, limited information, specific suggestions, intensive therapy
      - OTs are able to address the first two areas: permission and limited information
        - For example, the OT can state “I know the topic of sexuality may be uncomfortable, but I am here to talk about it if that is something you want to do.”
    - Setting boundaries
      - Inappropriate sexual comments or behavior by resident
        - May be his or her way of dealing with anxiety about the topic
        - May be sign that resident wants to or is ready to address sexuality
      - OT must be friendly but firm in setting boundaries for the session
        - Acknowledge resident’s feelings, and give permission to talk about further
        - Redirect resident to the activity
      - Must document threatening or abusive sexual behavior and report to supervisor or manager
ADL/IADL, Continued

- **IADLs**
  - Will require assistance with all tasks
    - Unable to divide attention between tasks, therefore simplify tasks that resident is able to participate in
    - Educate caregiver on abilities and needs of resident to promote highest level of independence

- **Occupation-Based Kits (Loscheider & Roed, 2011)**
  - Setting the table
    - Have individual set the table using only the items necessary provided in the kit
    - Use a visual aid of the correct way to set a table available for use
    - Supervision is needed for safety and assistance if needed at the lower range of the level
  - Applying and Removing Make-Up
    - Use only if part of the individual’s routine
    - Have only needed items present
    - Visual aid, demonstration, or step-by-step directions may be needed for appropriate use of the contents at lower ranges of the level
    - Supervision is necessary for safe application and removal of products
  - Hair Care
    - Have only items needed available for use
    - Visual aid may be needed for appropriate use
    - Supervision is necessary when using curling irons or hot rollers
    - At the lower range of the level, supervision will be needed for safe use of items and physical assistance will be needed for use of curling iron and hot rollers
  - Nail Care
    - Visual aids or written instructions may be provided on how to complete the task
    - Demonstration may be needed at lower range of the level
□ Occupation-Based Kits, continued
  o Shopping
    ▪ Have individual create grocery list with supervision
    ▪ Have cut out coupons from one flyer and organize into categories
    ▪ May need supervision to locate items within the grocery store
  o Money Management
    ▪ Person other than the individual should be in charge of finances
    ▪ Debit card may be beneficial
    ▪ May enjoy using fake money
    ▪ At lower range of level, have individual name value of money or count change
Cognitive Level 4

- **Games**
  - Simplify tasks
  - Cues may be needed
  - Can grade task based on cognitive ability
  - Memory or sequencing
    - Matching games
    - Connect Four
    - Guess Who
    - Phase 10
    - Go Fish

- **Puzzles**
  - Provide resident with activity
  - 100 pieces or less with help
  - Familiar pictures

- **Memory recall**
  - Short-term Memory
    - Create memory aids or checklists for important activities
  - Long-term Memory
    - Past family history
    - Past historical events
    - Childhood memories

- **Arts and crafts**
  - Knitting/Crochet
    - Able to use needles with supervision
    - Will need set-up of activity
    - May need to simplify patterns
    - May need to limit the number of colors working with
      - 2 colors
Cognitive, Continued

- **Arts and crafts, continued**
  - Car models
    - Able to use superglue with supervision
    - Will need setup of activity
      - May limit the amount of pieces provided at a time
    - May need a set with fewer pieces
    - Will need simplified directions that are concrete
    - Limit the amount of paint color options
      - 1 color for body of car and 1 color for detail work
Consult and educate family members about safety
  - Home evaluation to assess safety and potential risks for when resident goes home for visits
  - Provide family education on differences between care facilities prior to resident moving

Sensory room
  - Provide calming techniques to decrease anxiety and confusion
    - Scents such as lavender or vanilla
    - Sounds such as nature or classical music
      - Sounds with talking is not recommended
    - Weighted blankets
    - Comfortable seating
    - Soft lighting
      - Must have enough lighting for safe ambulation
      - Provide lighting that is not over-stimulating
    - Recommend painting the room calming colors, such as grays, blues, or mauve
    - Bubble towers
    - Vibration mats
    - Beanbag chairs
    - Solar projector
    - Tactile boards

Help set-up environments
  - Have resident bring in items from previous home that provide comfort and familiarity
    - Pictures of family, friends, and pets
    - Art work from resident’s home
    - Crafts completed by grandchildren
    - Furniture
  - Place picture of resident outside of room for person to locate easily
Help set-up environments, continued

- Simplify environment to decrease distractions
  - Remove televisions from group activity areas, or turn off during scheduled activities
  - Recommend painting areas of the unit such as sensory room
    - Get permission from administrators
    - Want to use calming colors in community room, for example dining room, activity room, sensory room, etc.
- Calming colors may include
  - Grays
  - Earth Tones
  - Mauve
  - Other tones that are soft and warm
Leisure

Cognitive Level 4

□ Recreation
  o Gardening
    ▪ Unable to use tools without supervision
    ▪ Can complete in natural environment with supervision to monitor for safety
    ▪ Simplify task for highest level of achievement
  o Cards/Games
    ▪ Play games that are familiar and require rote learning
  o Bingo
    ▪ Able to complete with some assistance in a group setting
    ▪ May need cues to stay on task

□ Music
  o Dancing
  o Playing instruments
    ▪ May encourage to play familiar instruments

□ Occupation-Based Kits (Loscheider & Roed, 2011)
  o Exercise
    ▪ May use videos and other visual aids
    ▪ Complete in a distraction-free environment
    ▪ May need to modify activities to match individual's abilities
    ▪ Supervision required for safety
  o Scrapbooking
    ▪ Only provide one page at a time to work on to achieve success with the activity
    ▪ Provide directions that are simple and short
    ▪ Safety scissors may be needed at the lower range of the level
  o Reading
    ▪ Provide books on CDs or tape
    ▪ Provide books with large print or pictures
    ▪ Short stories or news articles are easiest to read and comprehend
Leisure, Continued

- Occupation-Based Kits, continued
  - Woodworking
    - Provide one step of project at a time
    - May require assistance if project has multiple steps
    - At lower range of the level, the individual may sort items or complete gross motor steps
Social

Cognitive Level 4

- **Reminiscence groups**
  - Provide different prompts to talk about in group
  - Encourage to share past experiences as they remember them

- **Wii games**
  - Bowling
    - May create “team bowling league”
    - Provide cues on what comes next and simple directions
    - Limit amount of residents in group to decrease distraction

- **Parallel projects**
  - Residents share tools and materials
  - Singing groups
Cognitive Level 4

- **Home maintenance and management**
  - Continue daily routines that are simple
    - Cleaning with continual supervision
    - Not able to use hazardous cleaning agents i.e. bleach
    - Laundry
  - Monitor for safety risks with tasks
  - May require supervision with tasks
Residents functioning at this level will no longer be goal-oriented, and will require supervision with all activities. They typically do not understand verbal language anymore. They are driven by tactile exploration, and will therefore benefit from demonstration, gentle tactile cueing, and automatic gestures with familiar activities. Their short term memory is absent, causing new learning to not be possible. They can engage in activities if the activity is repetitive, automatic, familiar, and has 1-3 simple steps. Setup assistance and visual and tactile cues are required for initiating and completion of ADLs. Visual perceptual skills and mobility decline significantly.

Precautions: The resident is at a higher risk for falls at this level. Residents may easily become agitated if they are expected to do a task that is too hard. They can also become agitated if the environment has too much stimulation. It is important to keep activities and environment simple and calm.
Sensory

Cognitive Level 3

☐ Sensory relaxation
  o Have different textures available for individual to touch
    ▪ Pillow or tactile board with multiple fabrics including
      • Fleece, flannel, or silk
    ▪ Blankets
    ▪ Weighted blankets and vests
    ▪ Provide objects to watch that move and are colorful
      • Bubble tower
      • Solar projector
    ▪ Provide music such as nature sounds and classical music
      • Sounds with talking is not recommended
  o Provide objects for repetitive movements
    ▪ Rocking chair
    ▪ Swing with back support
    ▪ Vibration mats
  o Provide an environment with soft lighting for relaxation
    ▪ Must have enough lighting for safe ambulation
    ▪ Provide lighting that is not over-stimulating
  o Comfortable seating
    ▪ Bean bag chairs
  o Paint the room calming colors
    ▪ Grays, blues, or mauve

☐ Occupation-Based Kit (Loscheider & Roed, 2011)
  o Rest and Sleep
    ▪ May need demonstration for each step
    ▪ Pictures may help with completing routine
    ▪ At lower range of level, individual may require physical assistance to complete tasks
    ▪ Individual may benefit from calming music, aromatherapy, and massage to relax before bed
ADL/IADL

Cognitive Level 3

- **Meal routine**
  - Provide finger foods, or cut up food items for resident
  - One utensil at a time
  - One food item at a time
  - Monitor for difficulties with swallowing

- **Morning routine of dressing, bathing, grooming**
  - Provide step-by-step directions on completing tasks by using simple language and demonstration
  - Promote safety by removing hazardous materials

- **Sexuality**
  - Setting boundaries
    - Inappropriate sexual comments or behavior by resident
      - May be his or her way of dealing with anxiety about the topic
      - May be sign that resident wants to or is ready to address sexuality
    - OT must be friendly but firm in setting boundaries for the session
      - Acknowledge resident’s feelings, and give permission to talk about further
      - Redirect resident to the activity
    - Must document threatening or abusive sexual behavior and report to supervisor or manager

- **IADLs**
  - Must be completed with 1:1 supervision
  - Repetitive tasks such as
    - Organizing money
    - Folding laundry
    - Washing tables with soapy water
ADL/IADL, Continued

- Occupation-Based Kits (Loscheider & Roed, 2011)
  - Closures
    - May use snaps or button board
    - Demonstrate how to complete closures for individual, then ask to copy
  - Applying and Removing Make-Up
    - Use only if part of the individual’s routine
    - Provide limited amount of products, approximately 2-3
    - Hand only one item at a time to individual
    - Hand over hand assistance could be needed to apply products appropriately
  - Hair Care
    - Remove all items with cords and other products that may pose a safety risk
    - Hand items directly to person one at a time, or hand over hand assistance will be needed
  - Nail Care
    - Direct supervision is needed for safety when using products
    - Visual aids may be used for each step
  - Shopping
    - 1:1 supervision while in grocery store
    - Visual aids will be needed to locate items
    - Able to locate items when given a list of 2-3 at a time, but at lower range of level may require assistance for locating items
  - Managing Money
    - Individual may enjoy sorting, matching, or stacking money
Cognition

Cognitive Level 3

- **Arts/Crafts**
  - Tying fleece blankets
    - Set up assistance
  - Knitting/Crochet
    - Able to use dull or plastic needles with direct supervision
    - Will need setup of activity
    - Will require step-by-step directions
    - Will have to hand items as they are needed
    - Simplify patterns
      - Arm knitting
      - Braiding
    - Use one color of yarn
  - Car models
    - Requires direct supervision
      - Superglue
      - Small pieces
      - Paint
      - Sharp edges on plastic pieces
    - Will need setup of activity
      - May limit the amount of pieces provided at a time
    - Will have to hand items as they are needed
    - Requires a set with fewer pieces
    - Will need simplified directions that are concrete
      - Visual cueing
      - Demonstration
      - Tactile cues
      - Hand over hand
    - Limit the amount of paint color options to one
  - Painting with supervision
  - Coloring
  - Simple crafts without sharp tools
Environmental

Cognitive Level 3

☐ Consult and educate on safety
  o Home evaluation to assess safety and potential risks
  o Provide family education on differences between care facilities
  o Provide caregiver education on follow-through with recommendations

☐ Sensory room
  o Provide calming techniques to decrease anxiety and confusion
    ▪ Scents such as lavender or vanilla
    ▪ Sounds such as nature or classical music
      • Sounds with talking is not recommended
    ▪ Weighted blankets
    ▪ Comfortable seating
    ▪ Soft lighting
    ▪ Recommend painting the room calming colors, such as grays, blues, or mauve
    ▪ Bubble towers
    ▪ Vibration mats
    ▪ Beanbag chairs
    ▪ Solar projector
    ▪ Tactile boards

☐ Help set-up environments
  o Simplify environment to decrease distractions and increase safety
    ▪ Limit background noise
    ▪ Remove throw rugs
    ▪ Remove clutter and limit decorations
    ▪ Dim lighting in relaxing areas
    ▪ Increase lighting in areas where activities occur
  o Offer one activity in an area at a time
Help set-up environments, continued
- Have resident bring in items from previous home that provide comfort and familiarity
  - Pictures of family, friends, and pets
  - Art work from resident’s home
  - Crafts completed by grandchildren
  - Furniture

- Place picture of resident outside of room for person to locate easily

- Simplify environment to decrease distractions
  - Remove televisions from group activity areas, or turn off during scheduled activities
  - Recommend painting areas of the unit such as sensory room
    - Get permission from administrators prior to painting
    - Want to use calming colors in community room, for example dining room, activity room, sensory room, etc.
Leisure

Cognitive Level 3

- **Provide activities that are repetitive in nature**
  - Dancing
  - Music
    - Listen to music
    - Play instruments including tambourine, maracas, chimes, bongo drum
  - Gardening
    - Provide step-by-step instructions on planting in cups, have all needed materials set out and within reach
    - Watering plants at facility with supervision
  - Cards/games
    - Play familiar games with pictures instead of numbers
    - Use games with repetitive motions
      - Hungry, Hungry Hippos
      - Uno
      - Trouble
  - Bingo
    - 1:1 assist for directions on filling out card

- **Occupation-Based Kits (Loscheider & Roed, 2011)**
  - Exercise
    - Provide gross motor exercises
    - Use exercise videos
    - Demonstration may be needed for completing movements successfully
  - Scrapbooking
    - Direct supervision is needed for safety
    - No use of scissors at the lower range of this level, so must provide items that are already cut out
    - May need help gluing pictures to scrapbook paper
  - Reading
    - Provide books with few words and with mainly pictures
    - Have the individual look at photo albums and scrapbooks of familiar people and things
Leisure, Continued

☐ Occupation-Based Kits, continued
  o Woodworking
    ▪ Provide directions for each step with pictures
    ▪ Provide pictures of the final product
    ▪ Provide a completed project for the individual to paint or stain
    ▪ At lower range of the level, do not use toxic items, such as stain or solutions
    ▪ Individual may enjoy going through container of scrap pieces
Social

Cognitive Level 3

- **1:1 interactions**
  - May be able to mirror movements of another person directly in front on them
  - Use a calm voice and make eye contact with resident

- **Encourage family involvement**

- **Include in group activities**
  - Participate through observation
  - Can do repetitive, familiar aspects of activities

- **Singing groups**
  - Can hum some familiar tunes

- **Some like to hold baby dolls**

- **Baking groups**
  - Can do the stirring
  - Can knead bread dough
Productivity

Cognitive Level 3

☐ Repetitive tasks
  o Heavy lifting
    ▪ Lifting boxes
    ▪ Lifting a suitcase
    ▪ Lifting a laundry basket
  o Moving things
    ▪ Pushing a chair
    ▪ Rearranging furniture
  o Cleaning
    ▪ Washing tables
    ▪ Vacuuming if resident has good balance
    ▪ Dusting
  o Folding laundry
    ▪ Folding washcloths and towels
    ▪ Folding own clothes
    ▪ Pairing socks
Positioning

Cognitive Level 3

Use of physical restraints is strongly discouraged; however, use of positioners may be indicated for safety. If a restraint or positioner is used, there are several important guidelines to follow.

- **General positioning guidelines**
  - Keep a log of restraint/positioner use with special attention to
    - Time of day when used
    - Resident’s reaction to restraint/positioner
    - Types of behaviors that indicate use of restraint/positioner
    - Overall functioning of the resident
    - Type of restraint used and reason for use
    - What activities preceded disruptive behavior
  - Educate caregivers on prevention of pressure sores
    - Reposition every 2 hours as needed
    - Encourage to get up and move around every hour
    - Remove pressure from bony areas for approximately 30 seconds every hour if the resident does not initiate movement independently

- **Strategies to reduce use of restraints in the presence of disruptive behaviors**
  - Promote occupation-based activities as much as possible
  - Remove resident from distracting activities or items
  - Allow the resident to ambulate more frequently with supervision

- **Observe overall behavior in order to meet all the resident’s needs effectively**
  - This will assist with decreasing the use of restraints and will increase QoL
Positioning, Continued

- **Cushions to reduce risk of pressure ulcers**
  - Honeycomb-type
    - Good support for upright posture and excellent pressure relief
  - Foam-type
    - Rounded bottom to eliminate sling seat effect
    - Can cut out pressure areas
    - Cover with plastic and vinyl
  - Air Projectile-type
    - Good pressure relief but should NOT be used in skilled care facilities
    - Due to frequent changing of caregivers, the cushions can get deflated and go unnoticed for long periods of time, which can cause a pressure ulcer
  - Silicone-type that requires daily kneading
    - Offers some pressure relief but should NOT be used in skilled care facilities
    - Due to frequent changing of caregivers, the cushions do not get kneaded daily and can cause a pressure ulcer

- **Bed positioners**
  - High/low beds prevent injury if resident falls out of bed and support
  - Transfer ability
  - Side bed cushions that are removable
  - Non-slip cushions on floor next to bed at night
  - Air beds are recommended for people with stage 3 or 4 pressure ulcers

- **Alarms**
  - Bed
  - Wheelchair
  - Alarms can play gentle music to avoid frightening resident

- **Bed rails**
  - Discouraged due to high potential of injury and death
Residents functioning at this level are unable to use objects in meaningful ways. They require assistance with all ADLs, and will need direct supervision and help with all activities. They respond to sound, touch, and movement, but mainly focus on internal stimuli. They are unable to communicate effectively.

Precautions: The resident is at major risk for falls, due to trouble moving and maintaining balance. Swallowing is a concern for this resident. Disruptive behaviors become more common at this level, and may include hitting, yelling, and grabbing at others. Behaviors lack intention and are more sensory in nature. They are at risk of pressure ulcers and contractures due to limited mobility and interactions with environment. It can take over a minute to process 1 environmental stimuli; therefore, all actions should be done singularly and slowly.
Cognitive Level 2

- **Aromatherapy**
  - Provide relaxing scents
    - Attach flowers to clothing
    - Put a drop of scented oil in clothing
      - Lavender or vanilla
    - Use lotions and soaps that have relaxing scents

- **Sensory relaxation**
  - Have different textures available for resident to touch
    - Pillow or tactile board with multiple fabrics including
      - Fleece, flannel, or silk
    - Blankets
    - Weighted blankets and vests
    - Provide objects to watch that move and are colorful
      - Bubble tower
      - Solar projector
    - Provide music such as nature sounds and classical music
      - Sounds with talking is not recommended
  - Provide objects for repetitive movements
    - Rocking chair
    - Swing with back support
    - Vibration mats
  - Provide an environment with soft lighting for relaxation
    - Dim lights once resident is sitting and comfortable
  - Comfortable seating
    - Bean bag chairs
  - Paint the room calming colors
    - Grays, blues, or mauve

- **Occupation-Based Kit (Loscheider & Roed, 2011)**
  - Rest and Sleep
    - Individual may benefit from calming music, aromatherapy, and massage to relax before bed
    - Individual will have to be told when it is bedtime
ADL/IADL

Cognitive Level 2

- **Meal routine**
  - Maximum assistance with feeding
  - Unable to use utensils
  - May be able to eat finger foods
  - One food item at a time
  - Assess for difficulties with swallowing

- **Morning routine of dressing, bathing, grooming**
  - Provide total assistance
  - Cares should be done extremely slowly, step by step

- **IADLs**
  - Health management and maintenance
    - Complete all activities in sitting to avoid falls
    - ROM activities with colorful scarves or handkerchiefs
    - Balloon toss
    - Beach ball pass

- **Occupation-Based Kits (Loscheider & Roed, 2011)**
  - Applying and Removing Make-Up
    - Use only if part of the individual’s routine
    - Therapist may apply make-up while explaining what she is doing
    - Hand over hand assistance may be used for applying in repetitive movements, such as blush
  - Hair Care
    - Therapist will style hair while individual watches in a mirror
    - Therapist will explain the process as it happens
  - Nail Care
    - Therapist will complete activity while individual watches
    - Individual is able to pick color of nail polish
    - Watch for safety
Cognitive Level 2

- **Provide stimuli for brain activity**
  - Observation of social activities
  - Listening to music
  - Looking at a painting
  - Watching TV
  - Listening to book on tape
    - Resident will not understand the words but respond to the sensory sound of the human voice

- **Arts/Crafts**
  - Finger painting
  - Sand art
  - Look at family picture albums and scrapbooks
Environmental

Cognitive Level 2

- **Provide environment free of distractions**
  - Educate caregivers and staff on the importance of providing safe environments to decrease restraint use

- **Help set up environments**
  - Simplify environment to decrease distractions and increase safety
    - Limit background noise
    - Remove throw rugs
    - Remove clutter and limit decorations
    - Soft lighting in relaxing areas
    - Increase lighting in areas where activities occur
    - Offer one activity in an area at a time
  - Sensory room
    - Have different textures available for resident to touch
      - Pillow with multiple fabrics including fleece, flannel, and silk
      - Blankets
      - Weighted blankets and vests
      - Provide textures that are comforting
      - Provide objects to watch that move and are colorful
  - Provide objects for repetitive movements
    - Rocking chair
    - Swing with back support
  - Provide an environment with dim lighting for relaxation

- **Provide calming music**
  - Provide music such as nature sounds and classical music
Leisure

Cognitive Level 2

□ Music
  o Listening to music

□ Occupation-Based Kits (Loscheider & Roed, 2011)
  o Exercise
    ▪ Provide items with different weights and textures for individual to manipulate
  o Scrapbooking
    ▪ Unable to actively participate in scrapbook making
    ▪ May enjoy looking at scrapbooks or photo albums
  o Reading
    ▪ Picture books with no words
  o May enjoy listening to stories read to them
Social

Cognitive Level 2

☐ 1:1 interactions
   o Use a calm voice and make eye contact with resident

☐ Encourage family involvement
   o Talking about memories
      ▪ No language skills but could respond to the sound of the human voice
   o Educate on importance of social interaction, even if resident does not recognize visitors
   o Attend important meetings with caregivers and doctors
Productivity

Cognitive Level 2

☐ Able to assist with simple tasks such as moving objects

☐ Set up environment to facilitate desire to move objects

☐ There is limited sense of self; therefore, the psychological need for being productive is not present

☐ Not able to use tools
Positioning

Cognitive Level 2

Use of physical restraints is strongly discouraged; however, use of positioners may be indicated for safety. If a restraint or positioner is used, there are several important guidelines to follow.

- **General positioning guidelines**
  - Keep a log of restraint/positioner use with special attention to
    - Time of day when used
    - Resident’s reaction to restraint/positioner
    - History of falls
    - Types of behaviors that indicate use of restraint/positioner
    - Overall functioning of the resident
    - Type of restraint/positioner used and reason for use
    - What activities preceded disruptive behavior
  - Educate caregivers on prevention of pressure sores
    - Reposition every 2 hours as needed
    - Remove pressure from bony areas for approximately 30 seconds every hour if the resident does not initiate movement independently
  - Reposition every 2 hours to avoid pressure sores
    - Bed
    - Wheelchair
      - Tilt-in-space if hypertonic
    - Recliner
    - Use a wedge cushion for proper alignment of midline
  - Pressure map cushions if applicable

- **Strategies to reduce use of restraints in the presence of disruptive behaviors**
  - Promote occupation-based activities as much as possible
  - Remove resident from distracting activities or items
  - Allow the resident to ambulate more frequently with supervision
  - All options should be tried before using restraints for safety
Positioning, Continued

- **Observe overall behavior in order to meet all the resident’s needs effectively**
  - This will assist with decreasing the use of restraints and will increase QoL

- **Cushions to reduce risk of pressure ulcers**
  - Honeycomb-type
    - Good support for upright posture and excellent pressure relief
  - Foam-type
    - Rounded bottom to eliminate sling seat effect
    - Can cut out pressure areas
    - Cover with plastic and vinyl
  - Air Projectile-type
    - Good pressure relief but should NOT be used in skilled care facilities
    - Due to frequent changing of caregivers, the cushions can get deflated and go unnoticed for long periods of time, which can cause a pressure ulcer
  - Silicone-type that requires daily kneading
    - Offers some pressure relief but should NOT but used in skilled care facilities
    - Due to frequent changing of caregivers, the cushions do not get kneaded daily and can cause a pressure ulcer

- **Bed positioners**
  - High/low beds prevent injury if resident falls out of bed and support
  - Transfer ability
  - Side bed cushions that are removable
  - Non-slip cushions on floor next to bed at night
  - Air beds are recommended for people with stage 3 or 4 pressure ulcers

- **Bed rails**
  - Discouraged due to high potential of injury and death
Positioning, Continued

- **Alarms**
  - Bed
  - Wheelchair
  - Alarms can play gentle music to avoid frightening resident
Residents functioning at this level respond only to internal stimuli, and may present as being unconscious. They will require total assist with cares. The role of occupational therapy at this level becomes one of palliative care. There may be limited processing of internal stimuli as well, such as sensing food in the mouth.

Precautions: The resident may be rigid during cares. Medical complications may become the main concern of care. The resident is more susceptible to aspiration pneumonia, urinary tract infections, pressure sores, and malnutrition.
Cognitive Level 1

- **Aromatherapy**
  - Provide pleasant/favorite scents
    - Lavender
    - Vanilla

- **Sensory relaxation**
  - Provide favorite items such as
    - Pillows
    - Fabrics
    - Blankets
    - Stuffed animals
  - Soft music with steady rhythm

- **Human touch**
  - Comforting touch including massage

- **Occupation-Based Kit (Loscheider & Roed, 2011)**
  - Rest and Sleep
    - Individual may benefit from calming music, aromatherapy, and massage to relax before bed
ADL/IADL

Cognitive Level 1

- **Meal routine**
  - Risk for aspiration
  - Swallowing and/or feeding evaluation
    - Recommendations to promote adequate nutritional intake may include
      - Thickened liquids to help contain in a bolus
      - Positioning
        - Upright, midline, with chin tuck
      - Pureed foods
      - Use of swallow stimulating techniques
      - Cold and sweet foods may stimulate the swallow reflex (avoid sugar if diabetic)

- **Morning routine of dressing, bathing, grooming**
  - Provide comfort care
  - Provide total assist

- **Set up a functional maintenance program for ROM of all limbs**
Cognitive Level 1

☐ Include only 1 stimuli at a time
Environmental

Cognitive Level 1

- **Help set-up environments**
  - Sensory room
    - Provide favorite items such as
      - Pillows
      - Fabrics
      - Blankets
      - Stuffed animals
    - Provide soft lighting for relaxation

- **Provide calming and soothing sounds**
  - Nature sounds
  - Music
  - Poetry
Leisure

Cognitive Level 1

- **Provide activities that are calming, soothing, and promote comfort**
  - Music
  - Favorite movies and shows

- **Occupation-Based Kits (Loscheider & Roed, 2011)**
  - Exercise
    - Therapist may provide ROM and positioning techniques for comfort
  - Scrapbooking
    - Unable to actively participate in scrapbook making
    - May enjoy looking at scrapbooks or photo albums
  - Reading
    - Picture books with no words
  - May enjoy listening to stories read to them or hearing stories that go along with their scrapbook
Cognitive Level 1

☐ 1:1 interactions to provide comfort
  o Educate family members on importance of reminiscing and continuing socialization despite not receiving feedback
  o Use a calm voice and make eye contact with resident
Use of physical restraints is strongly discouraged; however, use of positioners may be indicated for safety. If a restraint or positioner is used, there are several important guidelines to follow.

- **General positioning guidelines**
  - Educate caregivers on prevention of pressure sores
    - Reposition every 2 hours as needed
    - Remove pressure from bony areas for approximately 30 seconds every hour if the resident does not initiate movement independently
  - Reposition every 2 hours to avoid pressure sores
    - Bed
    - Wheelchair
      - Tilt-in-space if hypertonic
    - Recliner
    - Use a wedge cushion for proper alignment of midline
    - May create cushions from foam pads for better alignment in wheelchair or bed
      - May need to be shaped to accommodate proper alignment
  - Pressure map cushions if applicable

- **Observe overall behavior in order to meet all the resident’s needs effectively**
  - This will assist with decreasing the use of restraints and will increase QoL
Positioning, Continued

- **Cushions to reduce risk of pressure ulcers**
  - Honeycomb-type
    - Good support for upright posture and excellent pressure relief
  - Foam-type
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- **Bed rails**
  - Discouraged due to high potential of injury and death

- **Alarms**
  - Bed
  - Wheelchair
  - Alarms can play gentle music to avoid frightening resident
Manual Summary

This manual has been designed for use by OTs working in a skilled dementia care unit. It is the goal of the authors that implementation of this manual at the OT’s facility will lead to improved competence and confidence for the OT and improved QoL for the resident.

This manual has been organized into four sections that follow the natural progression of the occupational therapy process. Section I describes the most common types of dementia that residents will have in a skilled dementia care facility, as well as the hallmark signs and symptoms associated with each type of dementia. Section II explains the CDRM, which is the model that guided the creation of this manual. Section III describes the evaluation process for residents with dementia. The CPT is the evaluation used in conjunction with the CDRM, and is located in the assessments of cognitive performance skills table. Other tables that list possible evaluations to use with a resident who has dementia are assessments of occupational performance and the assessment of affective performance skills. Finally, Section IV provides interventions that the OT may utilize with residents at various cognitive levels. The intervention charts have been organized by cognitive level, and further organized by areas most affected by dementia as found through a literature review conducted by the authors.
CHAPTER V

SUMMARY

The occurrence of dementia has been increasing over the years. According to Ferri et al. (2005), roughly 24 million people in the world have been diagnosed with dementia. It is believed that this number will double within 20 years (Ferri et al., 2005). This increase will lead to an increased demand for occupational therapists (OTs) to work with individuals with dementia within a skilled care unit. Occupational therapists are skilled in working with people with dementia; yet, most OTs do not feel confident providing occupational therapy services within a skilled dementia care unit. This has been found to be a problem worldwide (Bennett, Shand & Liddle, 2011; Chung & Lai, 2003; Cottrell, 1990; Craik, 1998). Bennett et al. (2011) found that 53% of OTs practicing in Australia are not at all or minimally confident in their knowledge of working with people with dementia.

This scholarly project was developed to address the low comfort levels of OTs working with people diagnosed with dementia. This scholarly project has been designed as a manual for OTs working with individuals with dementia living in a skilled care unit (SCU). The manual addresses the signs and symptoms of dementia, the types of dementia, evaluations commonly used, and intervention planning. The intervention planning process was guided by the cognitive disabilities-reconsidered model (CDRM).
As a result of implementing the manual created by the authors, it is believed that OTs will become more confident and competent in implementing interventions when working with individuals with dementia. With the increasing rate of people diagnosed with dementia, OTs will be able to meet the rising demands of care for this population.

The title of this scholarly project is *The Role of Occupational Therapy in Skilled Dementia Care: Improving Quality of Life*. The product is a manual that provides OTs a guide for working with individuals with dementia. The manual begins with an introduction describing how to best use the manual, and then is further divided into four sections. Section I includes tables and descriptions of the common signs and symptoms of dementia, as well as types of dementia most commonly seen by OTs. In section II, the authors explain in detail the cognitive levels as defined in the CDRM (Burns & Levy, 2006; Levy & Burns, 2011). Section III includes tables and descriptions of the primary assessment for this model, the Cognitive Performance Test (CPT), and other assessments that correlate with the model. It is laid out so that the OT can pick and choose between the assessments to get the most realistic picture of the individual’s skills and abilities. The last section of the manual, section IV, includes the tables of intervention ideas. These are organized by cognitive levels, and address the eight areas of highest need as determined from the review of literature. These areas include sensory, activities of daily living and instrumental activities of daily living (ADL/IADL), cognitive, environment, leisure, social, productivity, and positioning. The authors arranged the intervention tables into cognitive levels to
assist with easy intervention planning. This will allow an OT to consult one set of charts based on the resident’s needs and allow him or her to feel more confident and competent with providing interventions for individuals with dementia.

There are many strengths to this manual. First, it is easy to read. All sections have readable descriptions along with charts that are easy for OTs to access when needed. This manual is holistic because the authors considered all parts involved in intervention planning for an individual with dementia. The model that guided the creation of this manual, the CDRM, is straightforward and easy to understand. This model is evidenced based, and allows OTs to build an understanding of the individual’s cognitive level based on signs or symptoms he or she may be exhibiting. The CPT is designed to work in conjunction with the CDRM. This is an occupation-based measure that scores the individual’s cognitive functioning. Finally, while not all of the interventions are occupation-based in nature, the authors have included occupation-based kits to best meet the needs of the individual at that level.

A limitation to this scholarly project is that not all of the interventions provided in the tables are occupation-based. A more in-depth literature review could have provided better evidence of the areas that could be addressed for interventions. This manual has been designed for use in skilled dementia care units, and how to implement in other practice settings is not addressed. Finally, the manual has not been implemented by any OTs, so the authors are unsure of the success of the manual in a skilled dementia care unit.
It is a goal of the authors to present this manual at the American Occupational Therapy Association’s Annual Conference in the Spring of 2014. This will allow the authors to share their research and creation of the final product with OTs currently practicing. The authors will also be able to answer any questions at that time that practicing OTs may have.

The implementation of this manual was intended for use in skilled dementia care units; however, it can be adapted for use in other contexts. This manual will be provided to an OT practicing in an acute in-patient psychiatric unit at the Northeastern Nevada Regional Hospital in Elko, Nevada. The interventions in the manual will be adapted for use with individuals with dementia in this setting for group or individual sessions. The OT will stay in contact with the authors to provide feedback on her experience using the manual.

Finally, it is recommended that follow-up research be conducted on this manual. An OT can complete a mixed-methods study that addresses the overall competence and confidence of OTs prior to using the manual and after one year of implementation of the manual. The results from this study will directly address the problem statement that OTs do not feel prepared to work with individuals with dementia in a skilled dementia care unit.

In conclusion, this scholarly project and manual will be beneficial for practicing OTs within a skilled dementia care unit in order to become more competent and confident in implementing interventions with this population. This project will provide OTs with an easy to follow guide for the entire intervention planning process, from assessment to implementation. It is believed that the
individual's quality of life (QoL) will be increased as a result of implementing the interventions described in the manual because it provides the individuals with activities to engage in that are meaningful and purposeful.
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Appendix A

Permission Statements
Hi Jane,

We are doing our SP on the topic of OT within a skilled dementia care unit. Part of our project is to make a grid of intervention ideas for the different areas of occupation that are in line with the Cognitive Disabilities-Reconsidered Model. Dr. Janssen has mentioned that it would be nice to include your ideas about occupation-based kits from your and Rhonda’s SP into our final product. What are your and Rhonda’s thoughts on this?

Thank you,
Kelly Bainbridge and April Benoit

Re: SP Question
Loscheider, Jane [jane.loscheider@med.und.edu]
Sent: Tuesday, February 05, 2013 7:46 PM
To: Bainbridge, Kelly

I think this sounds great. We both feel that one of the best ways to reach someone with dementia is to engage them in meaningful tasks. I don’t know if you were looking for some type of permission or just general thoughts. Please let me know which you need and I can talk with Rhonda if necessary. I really love the idea!!!

Jane Loscheider
Hello again!

After some more discussion on how this best fits with our project, we were thinking it would be beneficial to add occupation-based kits into our chart of intervention ideas. Since we have set up our intervention charts differently from your project, we would be picking the most relevant occupation-based kits for each level based on the topic we’ve decided to cover. If possible, can we get formal permission to use your ideas within our product?

Thank you so much,

Kelly and April

I’ve sent your email to Rhonda but its fine with me. If she’s ok with it will an email suffice for approval?

Jane Loscheider

As far as we’re aware, an email should be fine. We will ask Dr. Janssen and get back in touch with you.

Kelly and April

Rhonda and I both give permission. Let us know if you need anything more formal. Good luck with your SP. We both know how grueling it can be!

Jane Loscheider
message

Janssen, Cindy [sclinda.janssen@med.und.edu]
Sent: Friday, March 22, 2013 3:08 PM
To: kmoen@hdr.com
Cc: Benoit, April; Bainbridge, Kelly

Hi Kandy,
Thank-you for leaving a message with permission to allow the students to use the HDR restraint evaluation. We are grateful and will be sure to cite HDR properly. I do wish I could have visited with you; it was so nice to hear your voice again and it made me miss you and everyone at HDR a lot. Hope we can cannot sometime soon!
Cindy

permission for restraint eval form

Janssen, Cindy [sclinda.janssen@med.und.edu]
Sent: Monday, March 25, 2013 11:52 AM
To: Bainbridge, Kelly; Benoit, April

Hi Kelly and April,
As the author of the Health Dimensions Rehabilitation, Inc (HDR) Restraint Evaluation form, I have asked Kandy Moen, President and founder of HDR, for permission for you to use the form in your scholarly project. She and I have both agreed to grant permission for you to use the form in your scholarly project with proper citations as indicated by the APA manual.
Thank-you
Cindy Janssen, PhD, OTR/L
Appendix B

Restraint Information
Restraints

1. Restraints may include:
   Chemical (medication)
   Physical: gray belt, posey vest, ties, recliner, wedge cushions, bed rails, Posey mitts, lap buddy, bed rolls, May chair with locked tray, w/c lap tray, Geri chair, holding
   Verbal: Verbally ordering a client to stay seated

2. Restraining clients is highly discouraged but may be necessary for safety on occasions.
   Ex: after hip surgery a client may be confused and may have weight bearing restrictions on surgical leg
   A person with dementia may also be unsteady in walking and therefore needs help but doesn’t know that. The person may be at risk of falls

3. All other non-restraining options should be attempted prior to utilizing any form of restraint:
   diversional activities, verbal cues, reassurance, increased ambulation schedule, w/c and bed alarms, increased toileting schedule, diversional activities, positioning

4. The state health departments prefer a team approach in decision making prior to implementing any form of restraint

5. A positioning device is considered a restraint if it is being used to restrain the client (ie wedge cushion makes it more difficult to come to stand, however, it may be used if the purpose is to promote an upright midline posture)

6. If a client attempts to get up unassisted without the use of a restraint and the restraint stops the client from getting up, the devise is considered a restraint.

7. A history of falls and at risk behaviors needs to be documented prior to utilizing a restraint (# of falls, causes of falls, balance scores, cognitive assessments, etc)

8. The risks of utilizing a restraint with a particular client needs to be documented and considered in team decision making

9. Client and family concerns need to be documented and considered in team decision making

10. A client should be able to independently remove a positioning or safety devise (lap belt) in order for it to NOT be considered a restraint.
Positioning/Restraint Evaluation

Name ___________________________  Diagnosis Being Assessed with Restraint Usage ____________

Date ___________________________  MR# ___________________________

What are the medical symptoms adversely affecting function?

☐ Physical Cues  ☐ Wheel chair alarm
☐ Verbal instruction  ☐ Bed alarm
☐ Reassurance  ☐ Increased ambulation schedule
☐ Removed from stimuli  ☐ Wedge cushion
☐ Removable lap table or lap cushion  ☐ Supervised activity
☐ (able to remove per self)  ☐ Reclining chair (able to get out of per self)
☐ Positioning with pillows/supports  ☐ Removable safety belt (resident able to
☐ Diversional activities  remove per self)
☐ Increased toileting schedule  ☐ 1/2 side rail
☐ Activity program  ☐ Other:

The above alternatives were found to be __ effective  ___ ineffective, because ____________

---

Restraints Currently Used

1. Gray belt in wheelchair............................................ ☐ Yes........... ☐ No
2. Wheel chair tray....................................................... ☐ Yes........... ☐ No
3. Geri chair with locked tray table................................. ☐ Yes........... ☐ No
4. Side rails (1 1/2 rails)................................................. ☐ Yes........... ☐ No
5. Posey mitt restraints................................................. ☐ Yes........... ☐ No
6. Wrist restraints.......................................................... ☐ Yes........... ☐ No
7. Alzheimer's chair with locked table.............................. ☐ Yes........... ☐ No
8. May chair with locked table....................................... ☐ Yes........... ☐ No
9. Other (i.e. lap cushion that resident unable to remove)..... ☐ Yes........... ☐ No
10. Reclining chair (unable to get out of per self)............. ☐ Yes........... ☐ No
11. Lap Buddy (unable to remove per self).......................... ☐ Yes........... ☐ No

List restraint # and risk for each restraint ____________

---

Does resident attempt to get up unassisted without use of restraint?  ☐ Yes  ☐ No
If yes, how often?

Is restraint device used as a positioner?
Describe ____________

History of falls?
Number and describe:  ☐ Yes  ☐ No

---

"Continued on back side"
Positioning/Restraint Evaluation, continued

Do symptoms affect function?  
☐ Yes  ☐ No  
Describe ____________________________

Describe previous function ____________________________

Is the resident so mobile that restraint may pose risk of injury?  
☐ Yes  ☐ No  
Describe ____________________________

Does resident transfer per self safely?  
☐ Yes  ☐ No  
Describe level of assist ____________________________

Does resident slide/fall because of .......... weakness  
.......... agitation  
.......... confusion  
.......... uncomfortable  
☐ Yes  ☐ No  ☐ Yes  ☐ No  ☐ Yes  ☐ No  ☐ Yes  ☐ No
Describe ____________________________

Does documentation reflect that restraint is removed every two hours?  
☐ Yes  ☐ No  
Describe ____________________________

Are there times of the day the problem is worse?  
☐ Yes  ☐ No  
Describe ____________________________

Family comments and concerns ____________________________

Conclusion ____________________________

RECOMMENDATIONS: ____________________________

Signature ____________________________ Date ____________________________
Appendix C

Resources for Evaluations
Assessments of Occupational Performance

Routine Task Inventory (RTI-2)

The Routine Task Inventory (RTI-2) may be downloaded for free from the following website:


Kettle Test

The Kettle Test can be downloaded for free from the following website:


Assessment of Motor and Process Skills (AMPS)

The Assessment of Motor and Process Skills (AMPS) manual set may be purchased for $129.00 or $95 if software is also purchased. This can be purchased at the following website:


Functional Independence Measure (FIM)

The Functional Independence Measure (FIM) is an objective scale that one may use for physical and cognitive disabilities. One must be trained on administering and scoring, which may be done at one’s facility. A guide with more detailed information may be located at the following website:

Assessments of Cognitive Performance Skills

*The Cognitive Performance Test (CPT)*

The Cognitive Performance Test (CPT) may be purchased for $555.55 from the following website:


*Global Deterioration Scale*

The Global Deterioration Scale scores individuals based on the seven stages of dementia. The scoring guide may be located at the following website:


*Allen Cognitive Level Screen (ACLS)*

The Allen Cognitive Level Screen (ACLS) may be purchased for $57.99 for the 3.5”x4.5” leather lacing kit or $72.99 for the 6”x7” leather lacing kit. The kits may be purchased from the following website:

http://www.crisisprevention.com/Products/Allen-Cognitive-Level-Screen-(ACLS-LACLS)

*Mini-Mental State Examination (MMSE)*

The Mini-Mental State Examination (MMSE) may be downloaded from the following website:

http://www.dhs.state.or.us/spd/tools/cm/aps/assessment/mini_mental.pdf
Assessment of Affective Performance Skills

*Geriatric Depression Scale (GDS)*

The Geriatric Depression Scale (GDS) may be downloaded from the following website:

http://www.chcr.brown.edu/GDS_SHORT_FORM.PDF