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The Role of Occupational Therapy in Primary Care with Older Adults

Kate Gearman
University of North Dakota

Tessa Richards
University of North Dakota

THE ROLE OF OCCUPATIONAL THERAPY IN PRIMARY CARE WITH OLDER ADULTS

by

Kate Gearman and Tessa Richards

Advisor: Jan Stube, PhD, OTR/L, FAOTA

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This Scholarly Project Paper, submitted by Kate Gearman and Tessa Richards in partial fulfillment of the requirement for the degree of Master 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.

Jan Stube, PhD, OTR/L

Signature of Faculty Advisor

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Kate Gearman MOTS

Kate Gearman, MOTS

12-20-16

Date

Tessa Richards MOTS

Tessa Richards, MOTS

12-20-16

Date

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ABSTRACT

The older adult population in the United States (U.S.) is projected to increase over the next 30 years (United States Census Bureau, 2014). With that, nearly two-thirds of older adults in the U.S. are diagnosed with at least one chronic health condition (Center for Disease Control and Prevention [CDC], 2016b). These findings highlight a need for more specialized services for this population. Primary care is one sector of healthcare service delivery operating within the U.S. healthcare system. Presently, occupational therapy services are limited in primary care settings as defined in this scholarly project. Occupational therapy services have demonstrated efficacy in providing cost-effective care that can reduce hospitalizations, enhance quality of life, delay effects of aging, and promote disease prevention (Clark et al., 2012; Jackson, Carlson, Mandel, Zemke, & Clark, 1998; Muir, 2012; Rogers, Bail, Lavin, & Anderson, 2016). Therefore, occupational therapists are well-equipped to provide interventions to older adults in order to prevent the progression of chronic disease to a point at which functional performance in valued daily occupations is limited.

A review of the literature helped to guide the development of this scholarly project and the Occupational Adaptation model assisted in organizing the product (Turpin & Iwama, 2011). The overall aim of this scholarly project is to advocate for the establishment of occupational therapy positions within primary care settings with older adults experiencing chronic conditions in order to enhance the preventive services being provided to this at-risk population, benefiting both the client and overall healthcare system. The product includes advocacy materials as well as occupational therapist and client guides to promote the inclusion of occupational therapy in primary care settings

working with older adults experiencing chronic conditions. It is anticipated that the occupational therapist guide will assist practitioners in implementing interventions that target the specific needs of each client. With that, the client guide is anticipated to provide the therapist and client with materials that can be easily accessed and utilized throughout the intervention process. We anticipate that our scholarly project will facilitate the wellness trajectory within our U.S. healthcare system for the improvement of quality of life for our older adult population.

Chapter I

INTRODUCTION

The United States (U.S.) healthcare system is unique in its delivery of healthcare services when compared to other developing countries. The profession of occupational therapy continues to be promoted as serving a pivotal role within this system. The American Occupational Therapy Association (AOTA) has identified chronic disease management as an area of emerging practice for occupational therapy (Yamkovenko, n.d.). This increased attention to chronic disease management may correlate with the aging U.S. population due to the "baby boomer" generation reaching older adulthood. Treatment for chronic conditions in primary care settings has predominantly been provided by primary care physicians; currently, involvement of occupational therapy in primary care is limited. Prior to evaluating the role of occupational therapy in a primary care setting for older adults diagnosed with chronic disease, it is essential to gain an understanding of older adults and chronic disease within the U.S. healthcare system, the role of occupational therapy in working with older adults, financial considerations in regards to healthcare services, and current primary care practices.

In 2015, older adults made up approximately 12% of the world population and currently make up 15% of the U.S. population (Mather, Jacobsen, & Pollard, 2015; United Nations, 2015). The World Health Organization (WHO) has predicted that the population of individuals over the age of 60 years, those defined as 'older adults', will

expand from 11% of the global population in 2000 to 22% by 2050 (Papageorgiou, Marquis, Dare, & Batten, 2016). In the U.S. alone, the population of older adults is expected to almost double from the years 2012 to 2050 from nearly 43 million to around 84 million (United States Census Bureau, 2014). As reported by Bonder (2009), such an increase in the population of older adults, both within the U.S. and globally, has been largely attributed to factors such as decreased infant mortality, reduced number of deaths resulting from infectious disease, and enhancements in healthcare worldwide. Due to the rising number of older adults in the U.S., categories have been created to distinguish between the "young old" (55-75 years) and the "old old" (76+ years) (Bonder, 2009, p. 8). As individuals age, their body's ability to fight infection and ward off disease may be diminished, increasing their vulnerability to illness and other ailments.

As adults age there is greater potential for health status decline and an individual's chance of acquiring any number of medical conditions has been found to increase. Research has connected this to factors such as unhealthy lifestyles that are a result of obesity, smoking, poor or inadequate diet, and a decrease in physical activity (Alkhawaldeh et al., 2016). The degree to which this health status decline occurs has been found to vary from individual to individual. With that, the specific medical conditions and severity impacting older adults is also variable. Older adults experience age-related risk factors including visual and hearing impairments as well as falls that can lead to more complex health conditions (Eklund, Sjostrand, & Dahlin-Ivanoff, 2008). This population has also been found to be at a heightened risk of experiencing the disabling effects of a chronic disease or illness. Chronic conditions that commonly impact older adults include stroke, heart disease, cancer, obesity, diabetes, and chronic

lung disease, among others (Alkhawaldeh et al., 2016; AOTA, 2016). Suffering from a complex medical condition during older adulthood has the potential to have a devastating and lasting impact on an individual's quality of life and overall well-being. Because of this, it is essential to become aware of the healthcare services that are being offered to this vulnerable population.

Because older adults experience a number of medical conditions, the services provided to this population have been and continue to be extensive. General and nurse practitioners have historically served as generalists to older adults by providing comprehensive medical services that attend to the various medical conditions impacting this population (Sheridan et al., 2012). In a health policy perspective, Muir (2012) expressed that the primary care physician has traditionally served as the referral source to allied health and other professional medical services in the U.S. healthcare system. Specialty physicians and therapists have been among these supplemental services receiving referrals. Examples include specialists such as optometrists, who have assisted with visual impairments and occupational therapists, who have assisted with preventive services, encouraged modification of one's lifestyle, and provided psychosocial and physical rehabilitation services as deemed necessary on both a group and individual basis (AOTA, 2016; Howey, Angelucci, Johnston, & Townsend, 2009). Occupational therapists have the skill set to provide preventive services to a population of older adults experiencing chronic conditions; this may highlight the need to include members of this profession on the primary care team. Research conducted by Sheridan and colleagues (2012) concluded that despite the provider or type of service being provided, older adults prefer reciprocal engaged relationships with their healthcare providers and found it most

beneficial when providers listened to their needs and beliefs about their medical condition.

Occupational therapists are well-equipped to employ intervention strategies that promote health and prevent disease. Specifically, the profession of occupational therapy has demonstrated efficacy in implementing health promotion interventions for individuals with chronic conditions (Eklund et al., 2008). In addition, evidence has supported the effectiveness of occupational therapy interventions that address fall risks and prevent unnecessary hospitalizations by promoting older adults' independence in community living (Rogers, Bai, Lavin, & Anderson, 2016; Wilkins et al., 2003). Occupational therapists have a unique perspective that allows them to find an appropriate fit between a client's capabilities and the demands of an activity in order to enhance older adults' occupational performance and promote health and well-being. Through all of this, occupational therapy interventions have resulted in decreased levels of disablement and subsequent hospitalizations (Rogers et al., 2016; Wilkins et al., 2003).

Creating a role for occupational therapy in primary care settings would result in a better use of healthcare dollars by focusing on preventing illness rather than waiting for the presence of an illness state to address problematic issues (Muir, 2012). The benefits of occupational therapy services provided in a primary care setting would be just as significant for clients as they would be for the healthcare system as a whole. The client-centered and holistic approach that occupational therapists employ allows clients to feel understood regarding activities that are meaningful to them. Occupational therapy interventions are designed to highlight and capture a client's potential in order to increase participation in occupational performance and community engagement (Howey et al.,

2009). The hallmark Well-Elderly Study "demonstrated that occupations have powerful, lasting therapeutic effects that radiate to numerous dimensions of well-being" (Jackson et al., 1998, p. 333). Through the use of occupational therapy services, clients are empowered to participate in occupations that promote their health and well-being. Research has demonstrated the importance for older adults to experience levels of mastery and control over their lives in order to reduce psychological suffering and increase an overall sense of well-being (Johansson & Bjorklund, 2016). Occupational therapy interventions can introduce adaptive strategies that enhance older adults' sense of control in regards to their health and wellness and daily functioning (Johansson & Bjorklund, 2016). In addition, there is strong evidence that occupational performance is enhanced through programs developed around a client's preferences and that focus on self-management (Arbesman & Mosley, 2012). Arbesman and Mosley (2012) found that occupational therapy interventions effectively reduced the level of pain clients experienced and increased the amount of physical activity clients could tolerate. Additional research has shown the efficacy of occupational therapy interventions in reducing health decline and promoting well-being in older adults (Johansson & Bjorklund, 2016). In the long term, occupational therapy interventions enhance older adults' sense of well-being and quality of life and reduce the effects of disability (Jackson et al., 1998). A reduction in the amount of disablement experienced by older adults not only enhances the well-being of this population, but positively impacts the U.S. healthcare system as a whole by reducing costs and hospitalization.

For the purpose of this scholarly project, key terms and concepts have been defined by the authors. An *older adult* is defined as an individual age 55 or older.

Chronic condition and/or *chronic disease* is defined as a long-term physical and/or psychological condition or disease that negatively impacts an individual's health and has the potential to result in functional decline. *Primary care* is defined as a sector of healthcare in which a primary care physician or other healthcare professional provides general health services to individuals of all ages with various health conditions.

The purpose of this scholarly project was to introduce the role of occupational therapy in a primary care setting working with older adults experiencing chronic conditions. The product titled, *Advocacy and Guide to Occupational Therapy in Primary Care: Caring for Older Adults with Chronic Conditions*, is intended to be used by occupational therapists to advocate for the inclusion of occupational therapy services in a primary care setting; included within the product is a presentation and complimentary handout designed to be delivered to geriatricians and other healthcare professionals whose clients consist of older adults with chronic conditions. The product also provides examples of interventions that can be implemented by an occupational therapist upon the initial meeting or in subsequent meetings with a client. It is anticipated that the product will be useful to help achieve the triple aim which includes "improving the patient experience, improving the health of populations, and reducing the per capita cost of care" (AOTA, 2016, para 1).

One factor that will influence the application of the proposed product is healthcare reimbursement policies. Currently, there are no Current Procedural Terminology (CPT) codes covering secondary preventive occupational therapy services. That being said, self-management is covered under the CPT code 97530, validating the use of self-management strategies throughout the interventions provided in the product. In addition,

occupational therapists can also bill for traditionally used CPT codes including therapeutic exercises and activity. With that, insurance pays a set amount for primary care services; however, occupational therapy services are not commonly covered under this payment system. The effectiveness and application of the product relies on active participation in advocacy efforts by practicing occupational therapists in order to promote the clinical usefulness of the profession's services within primary care practice.

The Occupational Adaptation (OA) model was chosen as a theoretical guide to the development of the product. The OA model assumes that the ability to adapt to varying circumstances is a normative process throughout life (Turpin & Iwama, 2011). The premise of this model is that the individual has a natural desire for mastery and the environment in which the individual acts demands mastery (Turpin & Iwama, 2011). Subsequently, the interaction between the individual and the environment creates a press for mastery (Turpin & Iwama, 2011). This press for mastery results in the need for a changed response (Turpin & Iwama, 2011). The model highlights the importance of the internal adaptive process, which is evident when an individual demonstrates the ability to generate an adaptive response that is objectively manifested in an occupational response. The individual is considered to have achieved a level of relative mastery when he or she generalizes this response to different settings. Through use of the OA model, the role of the occupational therapist is to consider the current environment and context and equip the client with skills that allow him or her to independently and adaptively generalize responses to novel situations in the future.

Individuals with chronic conditions must learn to make adaptive responses within their lives in order to address the barriers that arise with experiencing a long-term illness.

The presence of chronic conditions will impact how an individual engages in everyday activities as he or she may no longer be able to meet certain environmental demands due to internal factors related to their illness. The aim of the occupational therapist is to enable the client to independently master the adaptive process in order to be his or her own agent of change.

This product was developed in a way that is consistent with the framework of the OA model. The Occupational Profile Interview was developed to assess the client's daily routines, roles, and current adaptive responses. The interview also assesses what is expected of the client to successfully perform within their current environment. Together the occupational therapy practitioner and client identify any occupational challenges associated with the client's chronic condition and the potential need for a changed response. Throughout the evaluation and intervention process, the occupational therapist enables the client to determine how client factors, performance skills, and performance patterns inhibit or facilitate the client's ability to address the occupational challenges he or she is experiencing. The workbook by Lorig, Holman, Sobel, Laurent, Gonzalez, & Minor (2012) titled *Living a Health Life with Chronic Conditions* was used as inspiration for development of many of the interventions included within the product and were chosen due to their focus on addressing symptoms commonly experienced by individuals with chronic conditions. The ultimate goal of the therapy process is for the client to acquire and refine self-management skills that allow him or her to generalize adaptive responses to various life situations in order to promote the client's health and prevent further disablement due to their chronic condition.

Summary

Overall, the goal of this scholarly project was to advocate for the establishment of the role of occupational therapy within a primary care setting for older adults diagnosed with chronic conditions. Through utilizing the included presentation and complimentary handout, occupational therapists can advocate for the role of the profession within a primary care context. Secondly, the occupational therapy practitioner is provided with interventions that are supported by research and demonstrate the efficacy of occupational therapy within this setting. In addition, the interventions provide occupational therapy practitioners with a framework of strategies to address the needs of many older adults experiencing chronic conditions.

The following chapters of this scholarly project were designed to promote the role of occupational therapy within a primary care setting. Chapter II includes a review of the literature that highlights the efficacy of occupational therapy interventions in addressing the needs of the target population as well as the need for the profession of occupational therapy to establish a role within a primary care context. Chapter III describes the process followed throughout the literature review and the development of the product. Chapter IV contains the product, titled *Advocacy and Guide for Occupational Therapy in Primary Care: Caring for Older Adults with Chronic Conditions*. This chapter includes a presentation and additional information developed to promote the role of occupational therapy within a primary care setting as well as interventions that provide occupational therapy practitioners a framework to facilitate the therapy process for older adult clients living with chronic conditions. This chapter also includes an occupational therapy initial evaluation form, assessment chart, and outcome measure to help assess the effectiveness

of the product. Chapter V provides a summary of the purpose, strengths, and limitations of this scholarly project.

Chapter 2

LITERATURE REVIEW

Chronic disease management and prevention have been identified as emerging niches in occupational therapy practice by the American Occupational Therapy Association [AOTA] (Yamkovenko, n.d.). With that, the aging United States (U.S.) population has the potential to result in increases in the prevalence of chronic disease (Center for Disease Control and Prevention [CDC], 2016b; United States Census Bureau, 2014). Occupational therapy practitioners are well-equipped to provide specialized preventive services to older adults experiencing chronic health conditions. Despite this, primary care settings continue to overlook the need to include occupational therapists on the primary care team. In understanding the role that occupational therapy can play within primary care settings, it is important to have background knowledge in the current functioning of the U.S. healthcare system, chronic disease, the role of occupational therapy with older adults, the cost-effectiveness of occupational therapy services, the current functioning of primary care services, and the need for occupational therapy in primary care.

Healthcare System

The aging U.S. population results in numerous changes nationwide. National systems have found that they have had to adapt to the needs and demands of an older population. Alkhawaldeh and colleagues (2016) concluded that non-communicable diseases (NCDs) including diabetes, cardiovascular disease, chronic lung disease, and

cancer are more common in older adults than other cohorts and are projected to cost the globe $30 trillion in the next 20 years. The U.S. healthcare system, in particular, has introduced the need of a system reform in order to provide appropriate and necessary services to those age 65 and older who are covered under Medicare or one of the nation's other forms of insurance. Statistics from 2001 and 2003, respectively, showed that five percent of Medicare patients spent 43 percent of that year's total Medicare spending and that 25 percent of Medicaid patients including older adults were responsible for 70 percent of that year's spending (Muir, 2012). These numbers demonstrate the quantity of healthcare services utilized by the older adult population. Demonstration of the negative impact of chronic disease on the U.S. health care system calls for a more comprehensive understanding of chronic disease.

Chronic Disease

Prevalence

According to the CDC (2016a), as of 2012, about half of all adults had at least one chronic health condition and one in four adults had multiple chronic conditions. In total, an estimated 133 million Americans have one or more chronic condition(s) (American Occupational Therapy Association [AOTA], 2016). Furthermore, the prevalence of chronic conditions increases with age. Two-thirds of older adults are reported to have more than one chronic health condition (CDC, 2016b). In 2014, 75% of total Medicare spending went toward clients with five or more chronic conditions (Moyers & Metzler, 2014). In the United States, chronic health conditions have been found to be the leading causes of death and disability (CDC, 2016a). With consideration to all health problems,

chronic diseases are the most common, the most costly, and the most preventable (CDC, 2016a).

The prevalence of chronic diseases has highlighted a need for more attention in this scope of healthcare. Varying chronic diseases contribute to a wide range of detrimental health problems (AOTA, 2016; Eklund, Sjostrand, & Dahlin-Ivanhoff, 2008). Daily activities were found to be significantly limited by one-fourth of Americans living with chronic illness (Lamb & Metzler, 2014). The presence of chronic conditions such as hypertension, heart concerns, and diabetes has resulted in an increased likelihood of older adults seeking primary care services (Alkhawaldeh et al., 2016). Therefore, evidence has indicated that chronic conditions are becoming a prevalent issue within the U.S. healthcare system, particularly among older adults.

Primary Forms of Intervention

There are varying forms of interventions available to address chronic conditions. Both group and individual interventions have been utilized as forms of treatment with older adults (Hand, Law, & McColl, 2011). There are several characteristics that are common to group settings. Hand et al. (2011) found that group interventions commonly included the following: involvement of a multidisciplinary team, social support, education for and promotion of coping strategies, exercise training, individualized components, and follow-through strategies. Occupational therapy interventions commonly provided on an individualized basis included individual recommendations of home modifications, assistive devices, splinting, strategies for energy conservation, stress management, joint protection, information regarding community resources, and strategies

for problem-solving barriers to performance (Hand et al., 2011; Wilkins, Jung, Wishart, Edwards, & Norton, 2003).

Muir (2012) stated that typical occupational therapy interventions for chronic disease treatment can be straight-forward and completed in a home setting. Interventions may include an educational element, functional training, or a combination of both (Wilkins et al., 2003). Frenchman (2014) concluded that throughout intervention implementation, emphasis should be placed on the specific roles and routines that impact occupational engagement in order to contribute to promoting healthy practices. Common barriers experienced by clients that were found to hinder health promoting activities include lack of motivation, the environment, typical patterns, finances, and role obligations (Frenchman, 2014). Occupational therapists have commonly integrated strategies for problem-solving into interventions for clients with chronic diseases to combat barriers to occupational performance (Hand et al., 2011).

Many occupational therapy interventions implemented with clients experiencing chronic conditions focus on health promotion and disease prevention. Research has supported the use of preventive strategies such as healthy eating and exercise as means to promote health and prevent the debilitating effects of chronic disease (Frenchman, 2014). Eklund et al. (2008) found that an occupational therapy-based health-promotion program resulted in a decrease in disablement, an increased ability to maintain independence in activities of daily living (ADL), and a decreased number of reported health problems for clients with age-related macular degeneration, thus demonstrating the effectiveness of health promotion strategies. Evidence has indicated that basic activities of daily living (BADL), instrumental activities of daily living (IADL), health, and quality of life of

people with chronic diseases can be enhanced through occupational therapy interventions designed to target the needs of this population (Hand et al., 2011). Overall, common interventions to treat chronic diseases have been designed to allow occupational therapists to support clients in utilizing self-management strategies; therefore accommodating changes over time (AOTA, 2016; Arbesman & Mosley, 2012; Hand et al., 2011). Thus, research has emphasized the use of occupational therapy interventions that promote coping skills, individualized goal setting, strategies for self-monitoring, personalized recommendations for environmental modification, social support, and self-reward (Hand et al., 2011). With the high probability of chronic disease impacting the everyday activities of the older adult population, understanding the role of occupational therapy, a profession that works with clients on engagement in daily occupations, is beneficial.

Role of Occupational Therapy with Older Adults

Medical Conditions Treated with Occupational Therapy

Occupational therapy has an important role when working with the older adult population. One population that occupational therapists commonly work with includes individuals who are experiencing chronic conditions. Literature has supported the effectiveness of occupational therapy interventions with chronic conditions such as age-related macular degeneration, stroke, heart disease, cancer, diabetes, obesity, and rheumatoid arthritis, to name a few (AOTA, 2016; Eklund et al., 2008; Wilkins et al., 2003). Occupational therapy interventions address not only the condition a client is referred for, but any additional issues that cause him or her difficulty as well (Muir, 2012). This often results in changes to many aspects of occupations and performance

patterns for clients experiencing chronic conditions (Muir, 2012). Occupational therapists are specifically equipped with psychosocial skills that allow practitioners to develop collaborative relationships with clients to enhance the efficacy of therapeutic interventions (Glennon & Meriano, 2014). This holistic view of clients fosters a supportive opportunity for clients to achieve a state of health and wellness rather than experiencing inevitable accident or illness (Muir, 2012).

Healthcare Settings

Historically, occupational therapists have worked with older adults experiencing chronic diseases in a variety of settings including physician's offices, community clinics, rehab facilities, and the home (AOTA, 2016). With regards to office visits, researchers found that older adults spent more time in primary care doctor visits than did younger populations (Chen, Farwell, & Jha, 2009). Older adults have also received healthcare services in community-based settings. The need for community-based occupational therapy services has increased as older adults have received earlier hospital discharges than they did in the past (Wilkins et al., 2003). Wilkins and colleagues (2003) found that community-based occupational therapy interventions are most effective if they address specific issues, rather than covering all aspects of occupational performance. Occupational therapists can work in the community to empower community members to become active agents of their own health in order to promote overall health and wellness (Wood, Fortune, & McKinstry, 2013). In addition, for clients experiencing chronic conditions such as rheumatoid arthritis, evidence has shown that occupational therapy services received in the home setting are effective in improving daily function (Wilkins et al., 2003). In some cases, outcomes were more effective and chances of re-hospitalization

were reduced if clients who experienced a stroke received an early discharge to home with interdisciplinary rehabilitation services (Wilkins et al., 2003). The literature demonstrates numerous settings in which healthcare services can be provided and efforts are being made to increase health promotion with the older adult population.

Health Promotion

One of the aspects of older adult healthcare that can be addressed with occupational therapy intervention is that of health promotion. The profession of occupational therapy is embedded in knowledge and values that correspond with those of health promotion (Wood et al., 2013). Clark and colleagues (2012) found that promoting engagement in a healthy lifestyle can have significant effects for older adults by delaying inevitable age-related declines. Therefore, it has been emphasized that health promoting activities be incorporated into most areas of practice for occupational therapists (Wood et al., 2013).

One significant way in which occupational therapy can promote health and prevent injury is through providing interventions for clients that are at risk for falls, a major area of concern for this population. For community-dwelling individuals over the age of 65 years, it was found that an average of one in three falls each year (Mackenzie, Clemson, & Roberts, 2013; Tideiksaar, 2009). Hip fractures have commonly been associated with falls and the occurrence of hip fractures in the U.S. had reached approximately 332,000 cases annually by 2009 (Tideiksaar, 2009). The consequential rates of morbidity and mortality following hip fractures have been found to be substantial (Tideiksaar, 2009). In 2009, almost one in four clients who experienced a hip fracture died within one year following the injury (Tideiksaar, 2009). The field of occupational

therapy provides a framework for ways to address the prevention of falls in order to reduce the impact of this health care issue on the older adult population. Occupational therapists have the trained skill set to perform safety assessments in the home which could be conducted prior to an older adult experiencing a fall (Muir, 2012). In addition, occupational therapists are trained to evaluate and assist individuals following a fall to prevent subsequent falls (Mackenzie et al., 2013). Mackenzie et al. (2013) proposed a primary care model in which general practitioners work alongside occupational therapists to work with clients experiencing chronic conditions who are at risk for falls. Evidence has demonstrated the efficacy of falls prevention programs that incorporated exercise and balance training (Mackenzie et al., 2013).

For clients at risk for falls and functional decline, there is evidence that supports the effectiveness of occupational therapy interventions provided in a community-based or outpatient setting (Wilkins et al., 2003). Occupational therapy programs have been shown to make a positive difference in quality of life and occupational performance (Wilkins et al., 2003). Although occupational therapy can effectively address the prevention of falls, there are other aspects of health promotion that fall within the scope of occupational therapy. Frenchman (2014) stressed the importance of health promotion for patients with chronic disease. In order to reduce the need for further healthcare services, the overall goal is to prolong the time people are able to live well while in their own community (Frenchman, 2014). Jackson, Carlson, Mandel, Zemke, and Clark (1998) demonstrated that when older adults were able to appreciate the value of occupations and how they contribute to a sense of meaning, they were empowered to choose occupational activities that promoted their health. Common health promotion interventions include home

exercise programs, home modifications, and recommendations for and training in the use of adaptive equipment, for example (Muir, 2012). Research demonstrated that a health promotion program for clients with age-related macular degeneration was significantly more effective at reducing the effects of disability than a standard individualized treatment (Eklund et al., 2008). It has been demonstrated that occupations provide many benefits that contribute to numerous dimensions of well-being and provide opportunities for preventive health care (Jackson et al., 1998). The scope of occupational therapy allows the profession to focus on health promotion through use of occupations as a means to reduce morbidity and the effects of disability (Jackson et al., 1998). In an effort to understand the role of occupational therapy in providing care to older adults experiencing chronic conditions, consideration of cost-effectiveness is of utmost importance, particularly in a nation where the cost of healthcare is increasing.

Cost-Effectiveness

Healthcare Reform

Healthcare reform has become a popular topic of interest in the last decade. In recent years, the U.S. health care system has worked on adopting the Affordable Care Act (ACA). In addition, healthcare reform has focused on providing reimbursement for quality of care over quantity of care (Hart & Parsons, 2015). With implementation of the ACA in the primary care setting, focus has shifted to the use of inter-professional teams in order to achieve the "triple aim" which includes "improving the patient experience, improving the health of populations, and reducing the per capita cost of care" (AOTA, 2016, para 1). Glennon and Meriano (2014) found that these elements of the triple aim correlate appropriately with the primary focus of occupational therapy, demonstrating the

importance of including, and perhaps increasing, occupational therapy services provided to clients throughout the nation. In a 1995 report on the role of occupational therapy in primary care, Devereaux and Walker expressed that occupational therapy may have a role on managed care teams and that future insurance plans may cover disease prevention, wellness programs, and health promotion. Although this has yet to serve entirely true to this date, healthcare reform is continuing to make changes within the U.S. healthcare system that have the potential to impact future medical expenses for all clients. With healthcare policies such as the ACA in place, occupational therapy and other allied health professions have the potential to experience increased caseloads with simultaneous pressure to keep healthcare costs low.

Cost of Occupational Therapy Services for Older Adults

Occupational therapy licensure policy and salary varies from state to state within the U.S. Because of this, it is difficult to determine the exact cost of occupational therapy services as compared to other medical services commonly utilized by older adults. The hallmark Well-Elderly study was conducted between the years 1994 and 1997 and aimed to better understand the impact that occupation can have in the prevention of common health risks as well as search for meaning in the daily lives of aging adults (Jackson et al., 1998). The researchers concluded that the incorporation of occupations into therapeutic interactions can have a positive effect on one's overall well-being and can aid in promoting a preventive approach to healthcare (Jackson et al., 1998). A study by Hay and colleagues (2002) further examined the cost-effectiveness of occupational therapy services versus two control groups, as demonstrated in the Well-Elderly Study. It was determined that the occupational therapy program cost approximately $548/person; while

the active control group (social group) cost $144/person, and the passive control group (no treatment) cost $0/person (Hay et al., 2002). Such statistics demonstrate the increased cost of specialized occupational therapy services. Despite these findings, it was shown that healthcare costs were nearly two to three times lower for the occupational therapy group than the other two groups, showing the long term cost-effectiveness of occupational therapy services (Hay et al., 2002). The primary factor separating the occupational therapy group from the two control groups was its focus on preventive services.

Treatment of chronic disease accounted for nearly 75% of health care expenditures in the U.S. in 2002 (Wolff, Starfield, & Anderson, 2002). With the increase in the older adult population, it may be expected that this number has increased over the years. Additionally, at that time Medicare expenditures were found to equate to six times as much when diagnosed with a chronic condition versus having no chronic conditions (Wolff et al., 2002). Because chronic disease management requires long term medical care, discovering cost-effective solutions is essential to manage or even decrease healthcare costs. Preventive care has the unique potential to change future medical outcomes. As expressed by Muir (2012, p. 506), "having the opportunity to receive professional guidance for lifestyle modification and the development of healthy habits early on could prevent patients from having a significant medical or emotional event", therefore eliminating the need for more extensive and costly intervention in the future. A study reviewed by Bodenheimer, Lorig, Holman, and Grumbach (2002) provided evidence that a preventive 7-week program titled Chronic Disease Self-Management Program resulted in a decrease in healthcare costs due to a lower number of hospital

stays, emergency room visits, and visits to primary care physicians. Similarly, Clark and others (2012) demonstrated the cost-effectiveness of an occupation-based preventive intervention program for older adults as examined in the Well-Elderly 2 study. In a recent study by Rogers, Bai, Lavin, and Anderson (2016) occupational therapy services were found to be the only services to decrease readmission rates when spending for such services was increased for clients experiencing heart failure, pneumonia, and acute myocardial infarction. This finding demonstrates that increased spending on occupational therapy services upfront can be cost-effective by enhancing health and occupational performance, thereby preventing the need for future healthcare services and resultant expenditures. Overall, preventive programs and occupational therapy services have demonstrated the potential to decrease healthcare costs while enhancing the health and well-being of large populations.

Primary Care

What is Primary Care?

In evaluating the healthcare system as it pertains to older adults with chronic conditions, it is important to develop a basic understanding of the levels of healthcare that are available to this population. Of particular interest to emerging areas of healthcare practice is primary care. When discussing primary care, it is essential to distinguish between the terms primary care and primary healthcare. Letts (2011) distinguished the two terms in her 2011 Muriel Driver Memorial Lecture by reporting that primary healthcare included the general health services addressing a range of health related needs for all potential clients while primary care, a subset within the realm of primary healthcare, referred to the specific care typically provided by primary care physicians.

With that, primary care has been defined as "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community" (Roberts, Farmer, Lamb, Muir, & Siebert, 2014, S25). Prior to distinguishing the role of an occupational therapist in primary care as compared to more traditional primary care providers, it is important to obtain an understanding of the medical conditions treated in primary care, the health professionals providing care, the settings in which primary care is provided, and an overview of the primary care service delivery process.

Medical Conditions, Clients, Professionals, and Settings

Understanding the provision of primary care involves comprehension of the various medical conditions that can be treated with such services, the professionals providing care, and practice settings. In a study conducted by Alkhawaldeh and colleagues (2016), it was concluded that the population and health conditions that correlated with an increased use of primary care services included older adults suffering from heart conditions, hypertension, and diabetes with other conditions such as arthritis and gastrointestinal problems presenting as additional issues for the study's participants. In a health policy perspective on defining primary care, Metzler, Hartmann, and Lowenthal (2012) reported that the ACA viewed physicians, nurse practitioners, and physician assistants as the primary care practitioners who provide primary care services in the U.S. These services have traditionally been provided within family practice clinical settings (Donnelly, Brenchley, Crawford, & Letts, 2014). A scoping study conducted by McColl et al. (2009), found the implementation of rehabilitation services within primary

care to be provided in various settings and contexts including: family practice offices, through outreach services provided in remote or rural locations, home or community-based facilities, and through teleconferencing. Research has demonstrated that few healthcare professionals currently provide primary care services in limited settings, highlighting the importance of assessing the relationship between provider and client.

Provider-Client and Provider-Provider Relationships

With a large case load and increased pressure to provide comprehensive services to clients of all ages and impairment levels, it may be valuable to look at the relationship between client and physician and between healthcare providers in a primary care setting. Interestingly, Muir (2012) found that the 19-20 minutes allotted for interaction between physician and client in a primary care setting was viewed as inadequate by both parties. In addition, it was expressed that the focus of primary care on the management of illness and disease and lack of focus on long-term health can make it difficult to establish trusting client-physician relationships (Muir, 2012). The concept of "fragmentation of care" (p. 507) was introduced as it was expressed that primary care physicians make client referrals to supplemental service providers which can be provided in various other healthcare settings such as hospitals and rehabilitation facilities (Muir, 2012). In relation to this concept, participants in a qualitative study conducted by Sheridan and colleagues (2012) expressed their frustration with the lack of communication that can exist between general practitioners and other healthcare providers on the healthcare team. Overall, the literature demonstrates that there is a disconnect between the practitioners providing primary care services in a clinical setting and professionals providing supplemental services at alternative locations. In providing cohesive and comprehensive healthcare

services, particularly in the primary care setting, it has been emphasized that all healthcare team members value team collaboration, joint decision making, and establishing lasting relationships with clients and colleagues and that all team members understand each client's plan of care and work toward their overall healthcare goals (Glennon & Meriano, 2014). As demonstrated in recent literature, primary care is not as efficient or valued as it could be due to the limitations in setting and provider. The inclusion of occupational therapy within this realm of practice could have positive effects on the healthcare system.

Need for Occupational Therapy in Primary Care

Anticipated Role of Occupational Therapy in Primary Care

Letts (2011) posed the question that, "because occupation is a universal experience, does that necessarily imply that occupational therapists have a role with all occupations and all people?" (p. 210). There are risks as well as rewards with regards to exploring the role of occupational therapy in emerging areas of practice and there has found to be a need for the profession to evaluate and define the role of treating clients experiencing chronic disease in a primary care setting (Letts, 2011). The profession of occupational therapy has demonstrated the efficacy of occupational therapy interventions in many settings and with many populations. It has been emphasized that occupational therapists make a connection between the accomplishments made by the profession that have been supported in research and the needs and current issues in the healthcare system (Lamb & Metzler, 2014). Fortunately, recent research has anticipated what the role of occupational therapy in a primary care setting will entail.

According to Moyers and Metzler (2014), "occupational therapy practitioners have considerable expertise with populations experiencing functional limitations and participation restrictions that, if ignored, may cause the patient and family to face reductions in income, institutionalized living, caregiver burden, and further preventable health, cognitive, and mental health declines" (p. 502). In a primary care setting, occupational therapists could screen all clients to assess their functional level with regards to their ability to perform the activities and roles expected of them in order to reduce the consequences of ill health or occupational deprivation (Devereaux & Walker, 1995). Occupational therapists take an in-depth focus on function which contributes a unique and important outlook to a primary care setting (Donnelly et al., 2014). Within a primary care setting, occupational therapy interventions may include a focus on rehabilitation, wellness, self-management, screening, prevention, and patient education (Metzler et al., 2012). Moyers and Metzler (2014) recommended occupational therapists take on a role that involves client-centered care coordination. Occupational therapists in a primary care setting may also provide a link between clients, caregivers, providers, and community resources (Moyers & Metzler, 2014). The role of an occupational therapist in a primary care setting may be to act as an educator or consultant and provide remedial interventions, rather than providing on-going direct treatment (Killian, Fisher, & Muir, 2015)

Practice settings within the context of healthcare have varying degrees of structure and schedules differ from facility to facility. In considering the most common setting in which older adults receive primary care services, Muir (2012) introduced the idea of having occupational therapists work full time in a primary physician office as a

collaborative team with the primary care physician and nurse. She reasoned that the best time to intervene with clients experiencing chronic conditions is when they first recognize that there is a concern, as demonstrated by a visit to the physician's office, and when they are motivated and ready to change for the betterment of their health (Muir, 2012). Muir (2012) proposed that the occupational therapist begin by being present in the exam room with the physician to provide the two professionals the opportunity to understand the practices of the other. Once competence is demonstrated, the occupational therapist may take on the role of being the first contact during the client's care and may be responsible for devising a plan of care through discussion of assessment results with the physician. Chronic disease management is a specific area in which occupational therapy has the expertise to initiate care (Lamb & Metzler, 2014; Muir, 2012). This new system of care could increase the efficiency of primary care services and provide seamless and connected communication between healthcare professionals (Muir, 2012). In promoting the role of occupational therapy in primary care, researchers have illustrated the unique features that occupational therapy can bring to a primary care setting as compared to other healthcare professions.

How Occupational Therapy Differs From Other Health Professions in Primary Care

The profession of occupational therapy is rooted in knowledge and values that allow practitioners to consider clients with a holistic view (Muir, 2012). Occupational therapists are well-equipped to consider client factors such as the psychosocial, cognitive, physical, and cultural components of a client as well as aspects of the environment that support or inhibit function (Moyers & Metzler, 2014). The client-centered approach

emphasized within the occupational therapy profession creates a supportive relationship between practitioner and client that results in a strong therapeutic alliance (Muir, 2012). In addition, occupational therapists are trained to evaluate and address areas of occupational engagement, or lack thereof, with a comprehensive understanding of the association between health and occupation (Metzler et al., 2012). Evidence has shown a positive relationship between engagement in occupations and enhanced health and well-being (Wilkins et al., 2003).

The broad language used in the ACA to address primary care is consistent with occupational therapy, thus demonstrating that there is an opportunity for the profession to assert its role in a primary care setting (Metzler et al., 2012). In fact, clients experienced better health outcomes and greater satisfaction with services when they received care within a primary care setting that offered a team of professionals (Donnelly et al., 2014). Traditional primary care settings tend to place an emphasis on symptom reduction, disease management, and basic prevention (Muir, 2012). Muir (2012) stated that this type of approach does not foster long-term health. Occupational therapy interventions can focus on lifestyle modification and the development of habits that promote health (Muir, 2012). Rather than providing reactive interventions to treat injury or illness, occupational therapy can provide interventions that emphasize proactive preventive strategies in order to promote health and well-being (Howey, Angelucci, Johnston, & Townsend, 2009). Occupational therapists can play a key role in treating older adults experiencing chronic conditions through the use of health promoting interventions that allow clients to experience greater independence (Metzler et al., 2012).

One unique contribution of occupational therapy is the ability to analyze the demands of occupations that are meaningful to the client and assess the fit between a client's abilities and the demands of the activity within the client's environment (AOTA, 2016). In addition, occupational therapists have a unique role in connecting clients to community resources and services which allow them to receive the necessary support to live in the community longer and also decreases the need for unnecessary hospitalizations (Donnelly et al., 2014). An additional unique aspect of occupational therapy is the consideration placed on the cognitive aspects of a client (Killian et al., 2015). Occupational therapists have the ability to evaluate and detect any cognitive deficits a client may be experiencing that contribute to poor follow-through with recommended treatments (Killian et al., 2015). Subsequently, occupational therapists are trained to adapt information and provide intervention approaches in a way that is appropriate for the client and may reduce unnecessary hospitalizations (Killian et al., 2015).

Benefits of Occupational Therapy in Primary Care

Providing occupational therapy services in a primary care setting would have many benefits to the client as well as the overall healthcare system. Considering the scope of the profession, occupational therapy can make valuable contributions to address the current needs within the healthcare system (Lamb & Metzler, 2014). Research has shown that occupational therapy in primary care has the potential to reduce unnecessary hospitalizations (Bodenheimer et al., 2002; Donnelly et al., 2014; Killian et al., 2015; Rogers et al., 2016; Wilkins et al., 2003), enhance quality of life (Hand et al., 2011; Wilkins et al., 2003), delay effects of aging (Clark et al., 2012), decrease healthcare expenditures (Hay et al., 2002; Jackson et al., 1998), promote client follow-through

(Hand et al., 2011), and prevent falls and further healthcare issues (Mackenzie et al., 2013).

Conclusion

The prevalence of older adults living in the U.S. is expanding rapidly as the "baby boomers" age. The growth in this population requires the current healthcare system be re-examined and evaluated to determine if it can effectively meet the needs of this population. Older adults often experience the negative health effects of chronic conditions. Occupational therapists are well-equipped to treat older adults who have chronic conditions and provide interventions that promote health and prevent disablement. If occupational therapists had a role practicing in primary care settings, they would be able to effectively address the health concerns of older adults in a cost-effective way, reducing unnecessary hospitalizations and providing older adult clients with holistic, client-centered care.

Chapter III

METHODOLOGY

This scholarly project was produced with the overall aim of introducing the role of occupational therapy in a primary care setting with older adults diagnosed with chronic conditions. Currently, primary care physicians and nurse practitioners are the principal providers of primary care services (Metzler, Hartmann, & Lowenthal, 2012). Employment of occupational therapists in such settings is lacking despite the qualification of occupational therapists to provide health promotion and preventive services (Wood, Fortune, & McKinstry, 2013). Clients with chronic disease may not receive adequate health promotion services until their disease progresses to a point at which it impacts their daily functioning. The purpose of this scholarly project was to advocate and address the need for occupational therapy on the primary care team; this will capitalize on the expertise of occupational therapists in chronic disease management with older adults. In addition, the authors of this scholarly project developed evidence-based interventions for occupational therapy practitioners to use in this setting.

A literature review was conducted to determine the opportunities for occupational therapists within a primary care setting for older adults diagnosed with chronic conditions. The authors of this project searched the professional literature for scholarly articles and research regarding older adults in the United States (U.S.), chronic disease management, and the role of occupational therapists in primary care settings. In addition, the authors sought to find and review scholarly articles that described occupational

therapy interventions for addressing chronic conditions with an older adult population. The University of North Dakota Harley E. French Library of the Health Sciences was used to retrieve scholarly articles. Specific databases utilized to conduct searches of the literature included PubMed, CINAHL, Academic Search Premier, OT Seeker, and other EBSCOHost Databases. Scholarly articles were primarily obtained from the *American Journal of Occupational Therapy, Canadian Journal of Occupational Therapy, Scandinavian Journal of Occupational Therapy, New Zealand Journal of Occupational Therapy, Australian Occupational Therapy Journal*, as well as other medical and geriatric journals.

Literature critiques were written for 20 research articles that included quantitative and qualitative studies as well as health policy perspectives. A literature review chart was developed to organize information. The chart included information on the article's author, year of publication, level of evidence, design, method/intervention, assessments and outcome measures, and major findings and results. Information was also obtained from numerous textbooks covering various aspects of occupational therapy. The literature demonstrated the efficiency and effectiveness of occupational therapy interventions in addressing chronic disease management and promoting health while preventing disablement of older adults. In addition, the literature revealed that there is a need for occupational therapists to define their position and establish a role within a primary care setting. These scholarly articles and textbooks provided the evidence supporting the need for the developed scholarly project.

The primary resource used for development of the interventions included in the product was Lorig, Holman, Sobel, Laurent, Gonzalez, and Minor's (2012) workbook

titled, *Living a Healthy Life with Chronic Conditions*. Self-management strategies documented in the workbook were reviewed and incorporated within the product as an overarching technique to implement interventions and manage chronic disease. The intervention categories included in the product were decided upon following review of the most common symptoms experienced by individuals with chronic conditions as indicated in the workbook. These included pain management, fatigue management, breathing techniques, exercises, and medication management. Occupational therapist guides, as well as client guides, were developed for each of the intervention categories. Concepts of andragogy and gerogogy were applied to the interventions and client education materials in order to tailor them to the target audience.

Assessments used to address the needs of older adults with chronic disease were identified throughout the literature review process. In addition, a review of the textbook by Asher (2014), *Asher's Occupational Therapy Assessment Tools: An Annotated Index for Occupational Therapy* (4th ed.), contributed to the identification of additional assessments. A table was created that reviewed the assessment title, purpose, type, time to administer, and reference. Additionally, an initial occupational therapy evaluation/occupational profile was created using structure provided by the Occupational Adaptation (OA) model. The evaluation addresses the client's interests, abilities, occupational challenges, and readiness for change. Consistent with the OA model, the Relative Mastery Measurement Scale (George, Schkade, & Ishee, 2004) was included to allow the client to evaluate an intervention approach with regards to efficiency, effectiveness, and satisfaction to self and society. Finally, the product includes a presentation and complementary fact sheet designed to promote the role of occupational

therapy within a primary care setting to an audience of primary care physicians. The presentation and fact sheet were created using the information gathered from the literature review. These materials provide an overview of the developed occupational therapy interventions as well as the proposed role of occupational therapy in primary care for older adults with chronic conditions.

The occupation-based OA model was used as a theoretical guide to the development of the product. The OA model portrays the client as the agent of change and suggests interventions address the client's internal adaptive response (Turpin & Iwama, 2011). Therefore, the evaluation process described in the product was developed with components of the OA model. The occupational therapy evaluation included in the product allows the occupational therapist to gain an understanding of a client's roles, responsibilities, and capabilities within his or her environment as well as how the client typically responds to situations that are impacted by his or her chronic condition(s) (Turpin & Iwama, 2011). Subsequently, each of the interventions was developed with an emphasis on self-management as the interventions are client-centered and provide the client with choices. The client has the opportunity to evaluate his or her relative mastery through performance of an intervention in terms of efficiency, effectiveness, and satisfaction to himself or herself as well as to others using the Relative Mastery Measurement Scale (George et al., 2004). The OA model appropriately guided the intervention approaches as it allows clients to develop a level of relative mastery needed to self-manage their chronic disease.

Guided by the literature review and the OA model, this product was developed in three sections. Section I includes information to promote the role of occupational therapy

within a primary care setting. Included are a presentation and complementary fact sheet that were developed to be presented to geriatricians and primary care physicians that may refer older adult clients experiencing chronic conditions for occupational therapy services. Section II was developed as a guide for occupational therapists working in a primary care setting with older adults experiencing chronic conditions. This section includes an occupational therapy evaluation and occupational profile interview form developed with concepts of the OA model; a chart that includes assessments for chronic disease and self-management; a schematic that describes how concepts of the OA model are included throughout the therapy process; a section on the importance of promoting client self-management; and descriptions of occupational therapy intervention strategies to address pain management, fatigue management, breathing techniques, medication management, exercise, and additional resources. The third section includes handouts and interventions to be used by the client to address the aforementioned focus areas. Overall, the purpose of this product was to produce materials that promoted the role of occupational therapy in a primary care setting and provided evidence-based occupational therapy interventions useful to provision of client-centered care in a primary care setting.

Chapter IV

PRODUCT

The American Occupational Therapy Association [AOTA] has identified chronic disease management and provision of preventive services as emerging areas of practice within the field of occupational therapy (Yamkovenko, n.d.). The authors of this product titled, *Advocacy and Guide for Occupational Therapy in Primary Care: Caring for Older Adults with Chronic Conditions,* aimed to merge these two areas to promote the role of occupational therapy in primary care with clients living with chronic disease. Furthermore, emphasis was placed on providing services to the older adult population as two out of three older adults reportedly have more than one chronic health condition (Centers for Disease Control and Prevention [CDC], 2016b). The overall goal of this product was to promote the role of occupational therapy in a primary care setting with older adults experiencing chronic conditions.

Focus on participation and performance in daily occupations is an essential characteristic of the profession of occupational therapy. Lamb and Metzler (2014) concluded that daily activities were significantly limited by one-fourth of individuals living with chronic illness in the United States (U.S.). Because of this, it is essential to provide this population with resources and strategies to aid in enhancing or maintaining a functional level of participation in daily occupations. Involving older adult clients throughout the therapy process is consistent with self-management principles in health care (van het Bolscher-Niehuis, den Ouden, de Vocht, & Francke, 2016). Self-

management strategies have been found to be utilized more often when integrated into the client's current daily routines as well as when introduced during an initial physician visit (Newman, Steed, & Mulligan, 2004). Due to the strong evidence base behind the use of self-management interventions, the authors of this product emphasized the use of such strategies throughout the project development. The three self-management strategies of problem-solving, decision making, and developing a short-term action plan were introduced as tools that could be utilized by clients in order to assess their performance in daily occupations, identify occupational challenges that arise as a result of their chronic conditions, and determine an appropriate intervention or health promoting action plan as a response to their given challenge.

Occupational therapists, along with other health professionals, are in position to provide preventive interventions to older adults (van het Bolscher-Niehuis et al., 2016). The focus on preventive strategies distinguishes chronic disease management interventions for older adults from traditional interventions based on the medical model that emphasize the alleviation of symptoms (Muir, 2012). Interventions aimed toward management of chronic disease may address energy conservation, stress management, joint protection, information on community resources, and problem-solving strategies, to name a few (Hand, Law, & McColl, 2011). With that, integration of such interventions into a client's daily roles and routines fosters health-promoting practices (Frenchman, 2014). Interventions designed to address chronic diseases have allowed occupational therapists to play a direct, yet supportive role with clients in implementing self-management strategies; therefore accommodating changes over time (AOTA, 2016; Arbesman & Mosley, 2012; Hand et al., 2011).

The authors of this product included interventions to address the areas of pain management, fatigue management, breathing techniques, exercise, and medication management. These interventions address many challenges and symptoms commonly experienced by older adult clients with chronic conditions and can be appropriately addressed within a primary care setting (Lorig, Homan, Sobel, Laurent, Gonzalez, & Minor, 2012e). Guidance in developing the aforementioned interventions was provided by the Lorig, Homan, Sobel, Laurent, Gonzalez, and Minor (2012) workbook titled *Living a Healthy Life with Chronic Conditions*. What differentiates this scholarly project product from the work of Lorig et al. (2012) is the intentional inclusion of occupational therapy concepts and practices. In addition, the authors of this product consolidated the information provided in the workbook and adapted interventions to meet the needs of the target population. Client handouts and occupational therapist guides are provided for each intervention category. It is encouraged that interventions be adapted to meet the specific needs and circumstances of each client to ensure that the occupational therapist is providing client-centered care.

In the development of the intervention strategies, special attention was provided to the theory of gerogogy, the concept of adherence, and the principles of developing client education materials to ensure that the interventions and client handouts were tailored towards older adults experiencing chronic conditions. The interventions were developed with the intention to build on the client's past experiences, to provide relevant information, to promote adherence through personal commitment to the intervention strategies, and to establish a sense of control through self-management strategies (Bastable & Dart, 2011). In addition, handouts were developed by using large font, high

contrast between the letters and background, 5th-8th grade reading levels, short and simple sentences, and an adequate amount of whitespace on each page (Bastable, 2011). Following suggestions from Griffin, McKenna, and Tooth (2006), the written material included in this product such as client handouts and worksheets are not intended to replace verbal material. Additionally, the worksheets, handouts, and specific intervention strategies presented in this product may be more appropriate for some clients over others due to environmental, disease-related, or personal factors. With these considerations in mind, the authors emphasized the importance of reviewing intervention strategies and handouts with clients prior to sending them home.

The Occupational Adaptation (OA) model was utilized throughout the development of this product. The model highlights the internal process clients experience as they generalize and adapt to various situations and occupational challenges they encounter (Turpin & Iwama, 2011). This process is considered a normative experience that is present throughout a client's lifespan (Turpin & Iwama, 2011). As highlighted, literature has demonstrated that common interventions used to treat chronic diseases are designed to allow health professionals to support clients in utilizing self-management and problem-solving strategies that can accommodate changes over time (AOTA, 2016; Arbesman & Mosley, 2012; Hand et al., 2011). Since the OA model assumes that the internal adaptation process is common throughout the lifespan, creating interventions for individuals with chronic disease(s) that focus on self-management allows clients to make internal adaptations that are meaningful, relevant, and can be generalized to enhance occupational performance.

The interventions included in this product were established as a supplement to the overall advocacy of occupational therapy's role in primary care. In addition to developing and adapting interventions to address chronic disease management in occupational therapy, the authors emphasized the importance of promoting the role of occupational therapy in primary care settings. An informative presentation and fact sheet were developed as resources to present to health care professionals who currently provide direct services to the target population in their daily practice. The intention of such materials is to advocate for the role of occupational therapy in primary care by presenting evidence-based research on emerging opportunities for occupational therapy in working with older adults experiencing chronic conditions, introducing intervention ideas, promoting the cost-effectiveness of including occupational therapists on the primary care interdisciplinary team, and presenting overall benefits to the healthcare system. The aim of this advocacy action is to promote the role of occupational therapy in primary care for older adults experiencing chronic conditions. These scholarly project materials are intended to serve as an introduction to the implementation of occupational therapy services within primary care settings across the U.S. As advocacy efforts increase and reimbursement laws further incorporate preventive and self-management services, it is anticipated that the role of occupational therapy in primary care will reach a much larger clientele base. This movement aims to slow the progression of chronic disease and equip clients with strategies to manage their symptoms, decreasing future healthcare costs and enhancing the health of a nation with an aging population and high prevalence of chronic disease.

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ADVOCACY AND GUIDE FOR OCCUPATIONAL THERAPY IN PRIMARY CARE

Caring for Older Adults with Chronic Conditions

Kate Gearman, OTS and Tessa Richards, OTS
Advisor: Jan Stube, PhD, OTR/L, FAOTA

Table of Contents

Section I

Advocating for the Role of Occupational Therapy in Primary Care

Introduction

Section I was included within this product to provide occupational therapy practitioners professional materials designed to advocate for the inclusion of occupational therapy in a primary care setting for older adults with chronic conditions. A professional presentation and informational handout were developed to be shared with healthcare professionals that work directly with this population. Specifically, the informational materials were organized to target an audience of healthcare professionals which may include geriatricians, primary care physicians, nurse practitioners, or other allied health professionals that work in a primary care setting with older adults. The purpose of the materials included in this section is to promote the role of occupational therapy so the respective health professionals will incorporate occupational therapy interventions into primary care services provided to older adults with chronic conditions.

The professional presentation was developed to highlight the positive impact occupational therapy can have in a primary care setting for older adults diagnosed with chronic conditions. The presentation includes literature and research that supports the use of occupational therapy services with this population. In addition, it includes supporting evidence emphasizing the benefits of including occupational therapy in a primary care setting. The presentation provides an outline of the growing number of older adults living with chronic conditions within the United States (U.S.), the benefits of including occupational therapy services within a primary care setting, and an overview of evidence-based occupational therapy interventions that address the needs of older adults experiencing chronic conditions. The comprehensive format of this presentation was designed to be presented to the respective healthcare providers in a workshop or

conference setting. The presentation may be modified or abbreviated to serve the purposes of a different setting or target audience. The handout was developed to provide health professionals with additional information regarding the role and benefits of occupational therapy within primary care. The handout may be distributed either as supplemental information to that included in the presentation or as a self-supporting resource for individuals that do not receive the information included in the presentation.

The Role of Occupational Therapy in Primary Care for Older Adults with Chronic Conditions

Kate Gearman, MOTS & Tessa Richards, MOTS

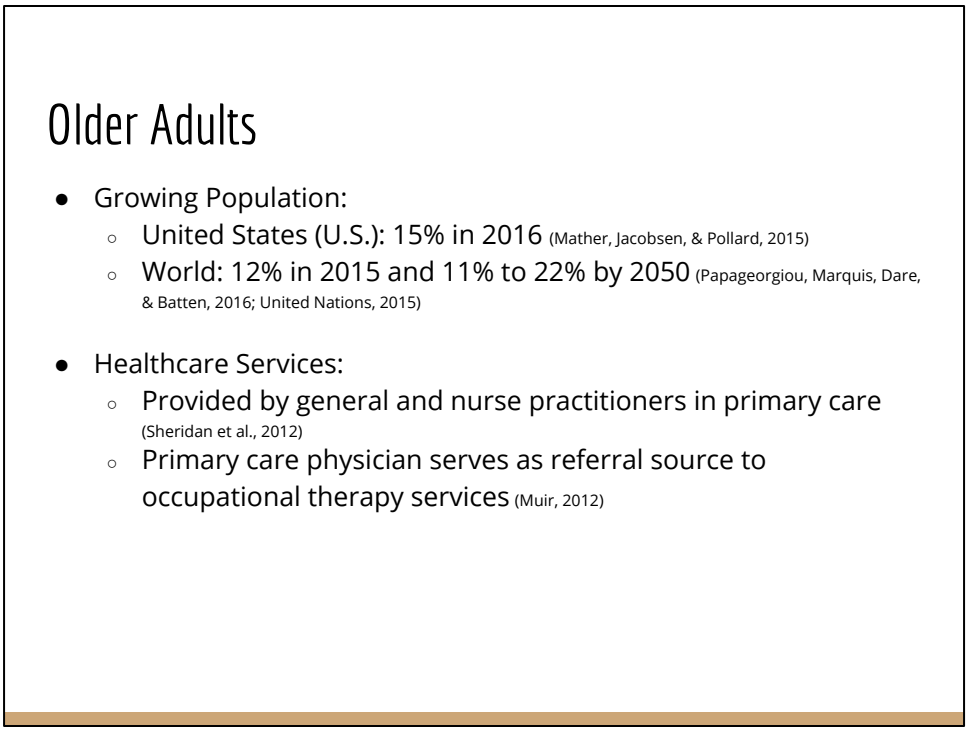
Objectives

1. Describe the benefits of occupational therapy services in a primary care setting for older adults with chronic conditions.
2. Describe the interventions occupational therapy can offer clients in a primary care setting for older adults with chronic conditions.
3. Explain how to include occupational therapy services in a primary care setting for older adults with chronic conditions.

Occupational Therapy Defined

"the therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in roles, habits, and routines in home, school, workplace, community, and other settings"

(American Occupational Therapy Association [AOTA], 2014, p. S1)

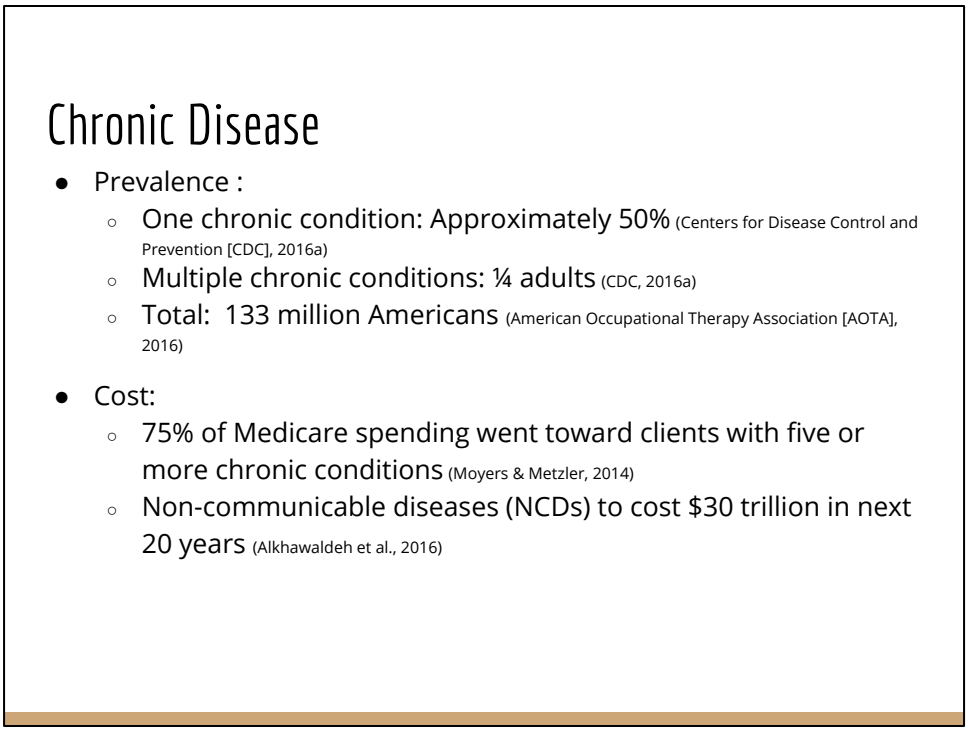


Growing Population

- In 2015, older adults made up approximately 12% of the world population and currently make up 15% of the U.S. population (Mather et al., 2015; United Nations, 2015).
- The World Health Organization (WHO) has predicted that the population of individuals over the age of 60 years, those defined as 'older adults', will expand from 11% of the global population in 2000 to 22% by 2050 (Papageorgiou et al., 2016).
- Factors impacting growth: decreased infant mortality, reduced number of deaths resulting from infectious disease, and enhancements in health care worldwide (Bonder, 2009).

Healthcare Services

- General and nurse practitioners have historically served as generalists to older adults by providing comprehensive medical services that attend to the various medical conditions impacting this population (Sheridan et al., 2012).
- The primary care physician has traditionally served as the referral source to allied health and other professional medical services in the U.S. healthcare system (Muir, 2012).



Prevalence

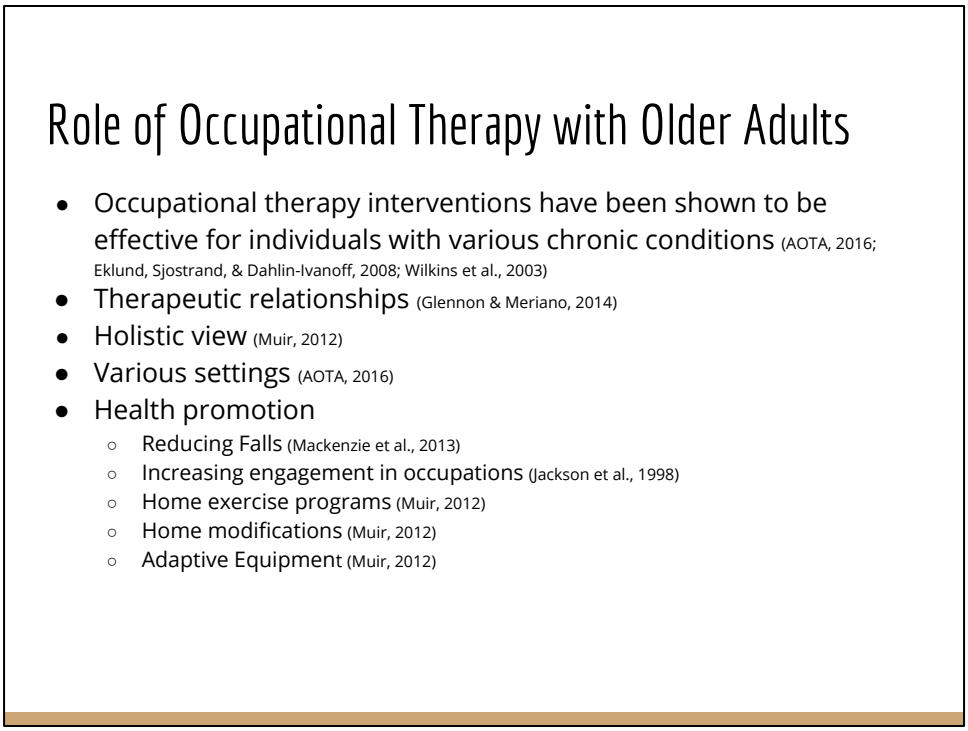
- In the United States, chronic health conditions have been found to be the leading causes of death and disability (CDC, 2016a).
- The prevalence of chronic conditions increases with age. Two-thirds of older adults are reported to have more than one chronic health condition (CDC, 2016b)

Cost

- With consideration to all health problems, chronic diseases are the most common, the most costly, and the most preventable (CDC, 2016a).
- In 2014, 75% of total Medicare spending went toward clients with five or more chronic conditions (Moyers & Metzler, 2014).
- Daily activities were found to be significantly limited by one-fourth of Americans living with chronic illness (Lamb & Metzler, 2014).
- Alkhawaldeh and colleagues (2016) concluded that non-communicable diseases (NCDs) including diabetes, cardiovascular disease, chronic lung disease, and cancer are more common in older adults than other cohorts and are projected to cost the U.S. $30 trillion in the next 20 years.

Why Include Occupational Therapy in Primary Care?

- Reduction in unnecessary hospitalizations (Bodenheimer, Lorig, Holman, & Grumbach, 2002; Donnelly, Brenchley, Crawford, & Letts, 2014; Killian, Fisher, & Muir, 2015; Rogers, Bail, Lavin, & Anderson, 2016; Wilkins, Jung, Wishart, Edwards, & Norton, 2003)
- Cost-effectiveness (Hay et al., 2002; Jackson, Carlson, Mandel, Zemke, & Clark, 1998)
- Falls prevention (Mackenzie, Clemson, & Roberts, 2013)
- Proactive prevention strategies (Bodenheimer et al., 2002; Muir, 2012)
- Enhanced quality of life (Hand, Law, & McColl, 2011; Jackson et al., 1998; Wilkins et al., 2003)
- Delayed effects of aging (Clark et al., 2012)
- Promotion of follow-through (Hand et al., 2011)



Efficacy with Various Chronic Conditions:

- Literature has supported the effectiveness of occupational therapy interventions with chronic conditions such as age-related macular degeneration, stroke, heart disease, cancer, diabetes, obesity, and rheumatoid arthritis, to name a few (AOTA, 2016; Eklund et al., 2008; Wilkins et al., 2003).

Therapeutic Relationships:

- Occupational therapists are specifically equipped with psychosocial skills that allow practitioners to develop collaborative relationships with clients to enhance the efficacy of therapeutic interventions (Glennon & Meriano, 2014).

Holistic View:

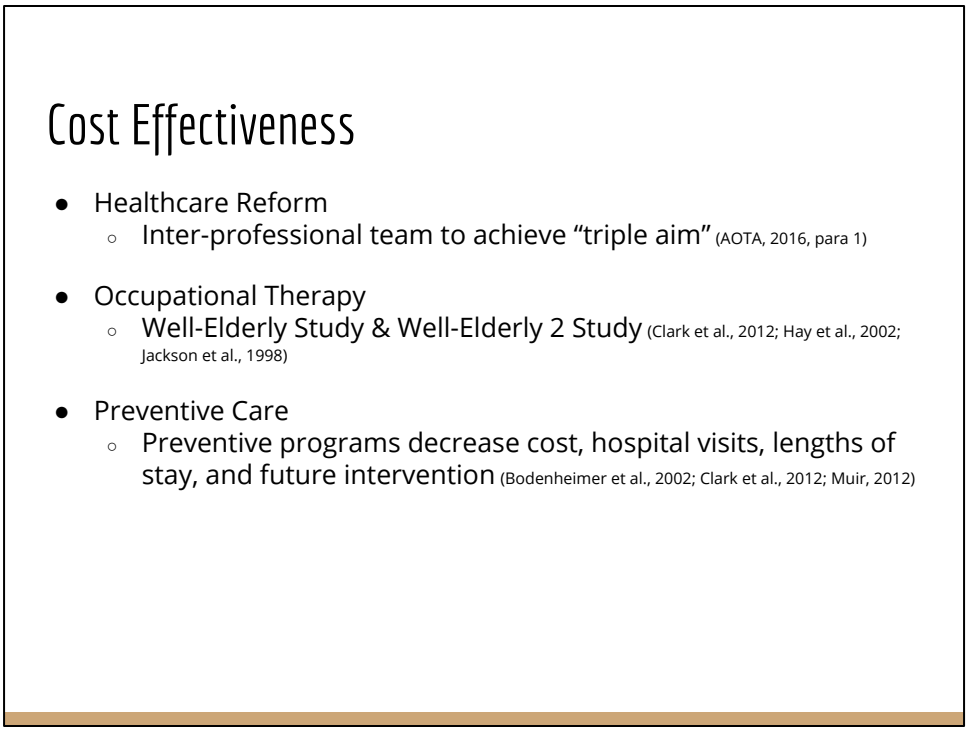
- This holistic view of clients fosters a supportive opportunity for clients to achieve a state of health and wellness rather than experiencing inevitable accident or illness (Muir, 2012).

Various Settings

- Historically, occupational therapists have worked with older adults with chronic diseases in a variety of settings including physician's offices, community clinics, rehab facilities, and the home (AOTA, 2016).

Health Promotion:

- The profession of occupational therapy is embedded in knowledge and values that correspond with those of health promotion (Wood, Fortune, & McKinstry, 2013). Clark and colleagues (2012) found that promoting engagement in a healthy lifestyle can have significant effects for older adults by delaying inevitable age-related declines. Therefore, it has been emphasized that health promoting activities be incorporated into most areas of practice for occupational therapists (Wood et al., 2013).
- For community-dwelling individuals over the age of 65 years, it was found that an average of one in three falls each year (Tideiksaar, 2009; Mackenzie et al., 2013). Hip fractures have commonly been associated with falls and the occurrence of hip fractures in the United States had reached approximately 332,000 cases annually by 2009 (Tideiksaar, 2009). The consequential rates of morbidity and mortality following hip fractures have been found to be substantial (Tideiksaar, 2009). In 2009, almost one in four clients who experienced a hip fracture died within one year following the injury (Tideiksaar, 2009).
- In order to reduce the need for further healthcare services, the overall goal is to prolong the time people are able to live well while in their own community (Frenchman, 2014). Jackson and colleagues (1998) demonstrated that when older adults were able to appreciate the value of occupations and how they contribute to a sense of meaning, they were empowered to choose occupational activities that promoted their health.
- It has been demonstrated that occupations provide many benefits that contribute to numerous dimensions of well-being and provide opportunities for preventive health care (Jackson et al., 1998).
- Common health promotion interventions include home exercise programs, home modifications, and recommendations for and training in the use of adaptive equipment, for example (Muir, 2012).



Healthcare Reform

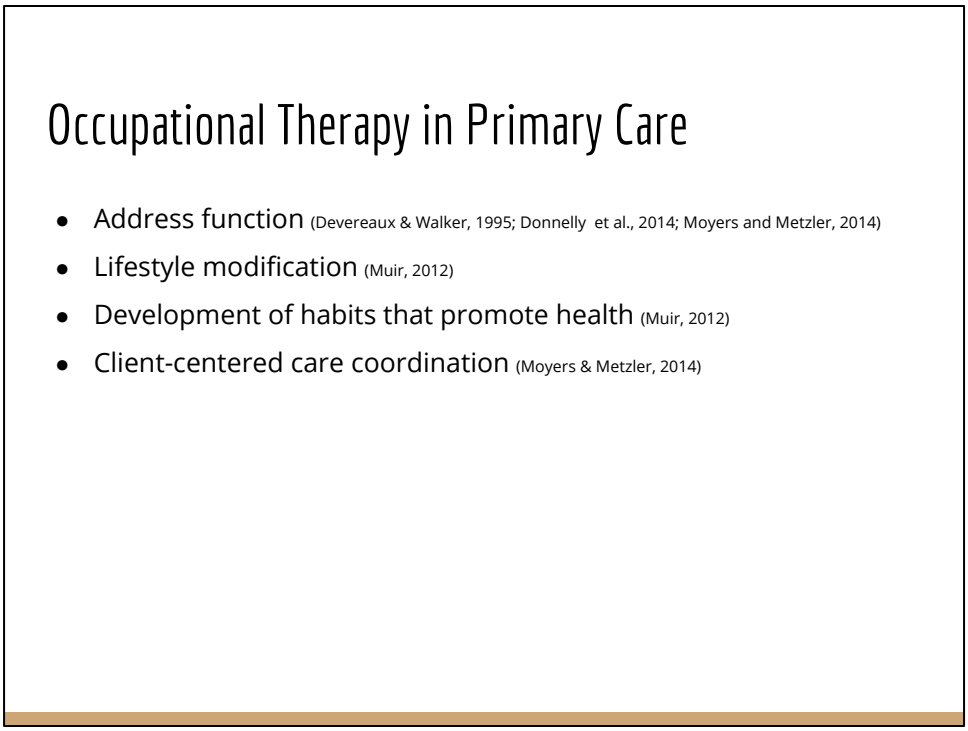
- With implementation of the ACA in the primary care setting, focus has shifted to the use of inter-professional teams in order to achieve the "triple aim" which includes "improving the patient experience, improving the health of populations, and reducing the per capita cost of care" (AOTA, 2016, para 1). Glennon and Meriano (2014) found that these elements of the triple aim correlate appropriately with the primary focus of occupational therapy.

Occupational Therapy

- The Well-Elderly Study and Well-Elderly 2 Study aimed to better understand the impact that occupation can have in the prevention of common health risks and search for meaning in the daily lives of aging adults (Clark et al., 2012; Jackson et al., 1998). The study explained the increased cost of specialized occupational therapy services as compared to a social and control group. Despite these findings, it was shown that health care costs were nearly two to three times lower for the occupational therapy group than the other two groups, showing the long term cost-effectiveness of occupational therapy services (Hay et al., 2002).

Preventive Care

- As expressed by Muir (2012, p. 506), “having the opportunity to receive professional guidance for lifestyle modification and the development of healthy habits early on could prevent patients from having a significant medical or emotional event”, therefore eliminating the need for more extensive and costly intervention in the future.
- A study reviewed by Bodenheimer and colleagues (2002) provided evidence that a preventative 7-week program entitled Chronic Disease Self-Management Program resulted in a decrease in health care costs due to a lower number of hospital stays, emergency room visits, and visits to primary care physicians. Similarly, Clark and others (2012) demonstrated the cost-effectiveness of an occupation-based preventative intervention program for older adults as examined in the Well-Elderly 2 study.



Address Functional Limitations:

- Occupational therapists take an in-depth focus on function which contributes a unique and important outlook to a primary care setting (Donnelly et al., 2014).
- Moyers and Metzler (2014), "occupational therapy practitioners have considerable expertise with populations experiencing functional limitations and participation restrictions that, if ignored, may cause the patient and family to face reductions in income, institutionalized living, caregiver burden, and further preventable health, cognitive, and mental health declines" (p. 502).
- In a primary care setting, occupational therapists could screen all clients to assess their functional level with regards to their ability to perform the activities and roles expected of them in order to reduce the consequences of ill health or occupational deprivation (Devereaux & Walker, 1995).

Client-Centered Care Coordination:

- Occupational therapists in a primary care setting may also provide a link between clients, caregivers, providers, and community resources (Moyers & Metzler, 2014).

Timeline of Care

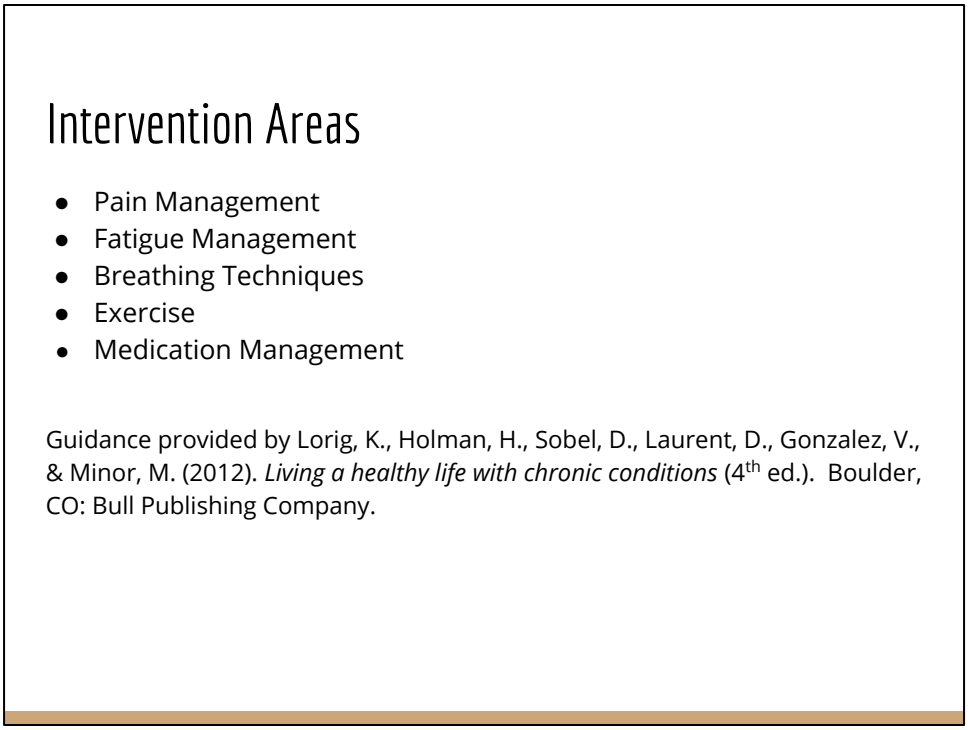
1. Client attends a visit with his/her primary care physician.
2. Primary care physician determines appropriateness for occupational therapy intervention.
3. Primary care physician contacts occupational therapist.
4. Occupational therapist completes evaluation and provides educational, consultative, or direct intervention services.
5. Occupational therapist collaborates with client to determine necessity for continued services.
6. Occupational therapist and client schedule future appointments.

Role of Occupational Therapy in Primary Care

- Intervention Roles
  - Practitioner
  - Educator
  - Consultant

(Killian et al., 2015)

- The occupational therapist as the **practitioner** may provide direct intervention by assisting the client to participate in an evidence-based intervention within the clinic.
- The occupational therapist as the **educator** may provide education to the client regarding intervention techniques and through reviewing client handouts.
- The occupational therapist as the **consultant** may provide advice or direction throughout the therapy process as well as encourage implementation of self-management strategies and connect the client with additional resources.



Interventions were created to address symptoms commonly experienced by multiple chronic conditions.

Pain Management

- Clients suffering from various chronic conditions experience pain. Pain is a subjective experience that affects each client individually. Therefore, it is important to examine each client on an individual basis and take the subjective interpretation of their pain into consideration when determining appropriate intervention protocols. In regards to occupational therapy, it is essential to specifically focus on occupational performance and consider client goals when examining the impact of pain on functional performance of valued occupations.

Fatigue Management

- Fatigue is a common symptom of chronic disease that can be experienced physically, mentally, psychologically, and emotionally. Each client experiences fatigue differently depending upon his or her chronic disease and the severity of symptoms. It is important to address how fatigue impacts the performance of valued daily occupations and establish strategies that can be incorporated into the client's daily routine. With appropriate management of fatigue, clients will be able to participate in the everyday activities that they enjoy doing.

Breathing

- Breathing difficulties accompany a number of chronic conditions. Impaired breathing can decrease oxygen intake and can lead to shortness of breath and decreased ability to engage in daily activities. Performing breathing exercises can help to control breathing patterns and enhance an individual's ability to appropriately perform valued activities.

Exercise

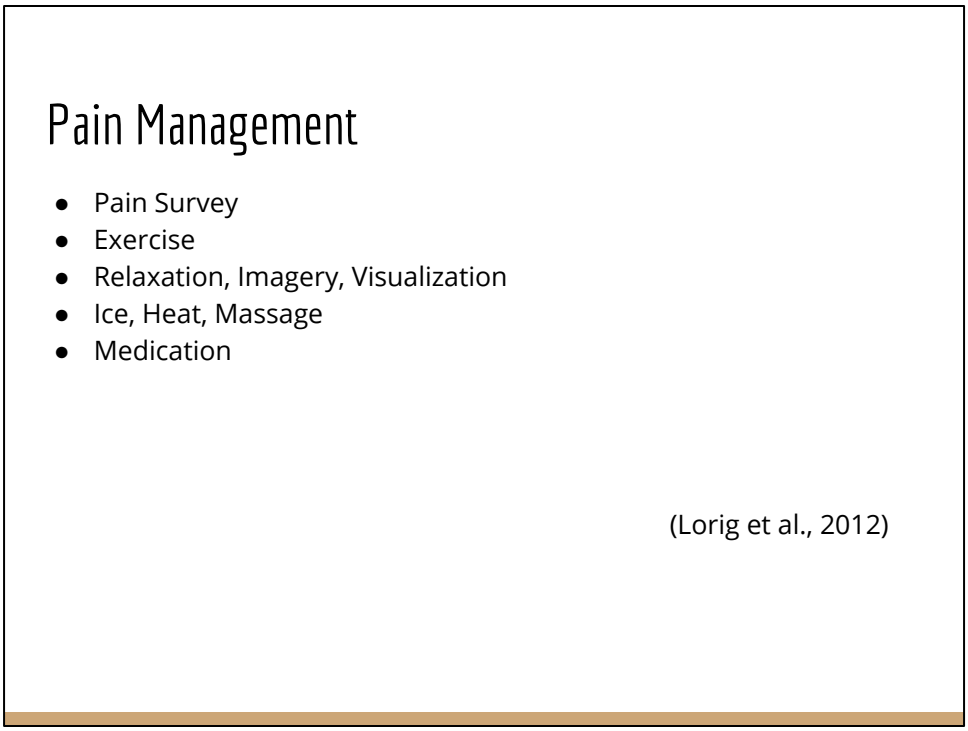
- Individuals experiencing chronic conditions may refrain from engaging in physical activities because they do not know an appropriate exercise protocol for their condition and they fear engaging in physical activity improperly may worsen their condition. However, there are many health benefits to routinely engaging in physical activities.Occupational therapists employ a holistic and collaborative approach to help clients establish exercise routines that are meaningful to them.

Medication Management

- Individuals with more than one health concern are likely receiving numerous treatments and therefore, taking more than one medication. It can be difficult for clients with chronic conditions to keep track of what medications to take when. Medication non-adherence is not taking medications as prescribed. This is seen when a client does not take the medication, takes the wrong dose, takes medication at the wrong time, etc. Occupational therapists utilize a collaborative approach to help clients establish a medication routine that correlates with their daily routine in order to enhance medication adherence.

NOTE: Interventions focus on the need of the client in regards to his or her chronic disease experience or risk. Many of the interventions have a preparatory component. It is anticipated that such interventions will become incorporated into the client's daily occupations as determined appropriate by the occupational therapist and client. It is also anticipated that future interventions, should they be deemed necessary, will incorporate more occupation-based activities.

Guidance in developing the aforementioned interventions was provided by the Lorig et al. (2012) workbook entitled *Living a Healthy Life with Chronic Conditions*. What differentiates this product from the work of Lorig et al. (2012) is the intentional inclusion of occupational therapy concepts and practices. In addition, the authors of the project consolidated the information provided in the workbook (Lorig et al., 2012) and adapted interventions to meet the needs of the target population.



Pain Survey:

- The client is encouraged to journal about his or her experiences with pain throughout the day.
- The survey is reviewed with the occupational therapist to ensure that triggers are identified and actions resulting in the experience of pain are addressed through intervention.
- The client is encouraged to utilize self-management strategies to develop an action plan to address pain when it arises or prevent pain altogether.

Exercise:

- Exercise can help alleviate pain experienced with chronic disease in a number of ways including: increasing blood circulation, strengthening muscles and bones, stabilizing joints, and decreasing anxiety and depression.
- It is beneficial to attempt to help a client incorporate an exercise regimen into his or her current daily routine to prevent disruption of daily activities and to promote adherence to the program.
- Refer to “Exercise” section.

Relaxation, Imagery, Visualization:

- Practicing relaxation techniques can help the client to calm his or her body both physically and psychologically.

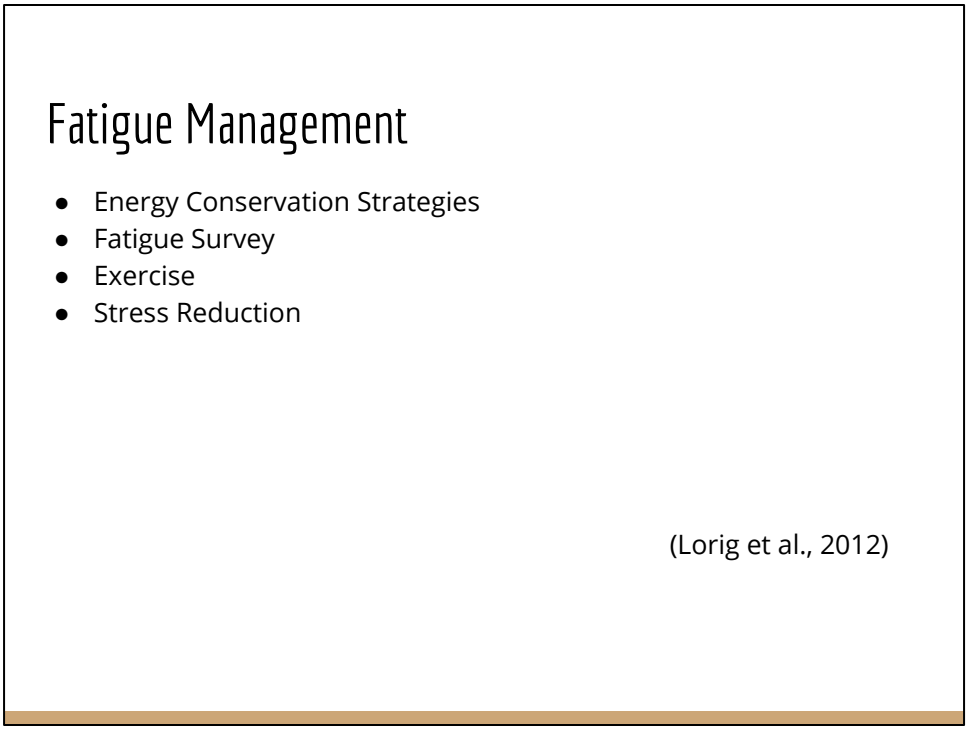
- Decreasing body tension and alleviating anxious thoughts can help reduce pain sensation and help to better manage pain symptoms.
- Relaxation techniques can be incorporated into the client's current daily routine or implemented before, during, or after performance of daily occupations that increase the client's levels of stress and anxiety.
- Refer to "Breathing Techniques" section.

Ice, Heat, Massage

- A number of physical agent modalities (PAMs) can be applied to help clients alleviate symptoms of chronic conditions.
- Application of many PAMs requires experience or specialty certification.
- In occupational therapy, PAMs should be used as an adjunct to activity and participation in daily activities.
- Education can be provided to clients regarding PAMs that can be applied in the home setting to allow the client to establish control over his or her disease and symptom experience.

Medication:

- Numerous medications can be used for pain management.
- See "Medication Management" section.



Energy Conservation Strategies:

- Practicing energy conservation techniques can help clients save energy and reduce feelings of fatigue.
- Once it is better understand what occupations or activities cause fatigue for a client, they can be provided an energy conservation strategy handout that can assist in determining appropriate changes to make that would result in less energy consumption and, ultimately, fewer feelings of fatigue.

Fatigue Survey:

- The client is encouraged to journal about his or her experiences with fatigue throughout the day.
- The survey is reviewed with the occupational therapist to ensure that triggers are identified and actions resulting in the experience of fatigue are addressed through intervention.
- The client is encouraged to utilize self-management strategies to develop an action plan to address fatigue when it occurs or prevent fatigue altogether.

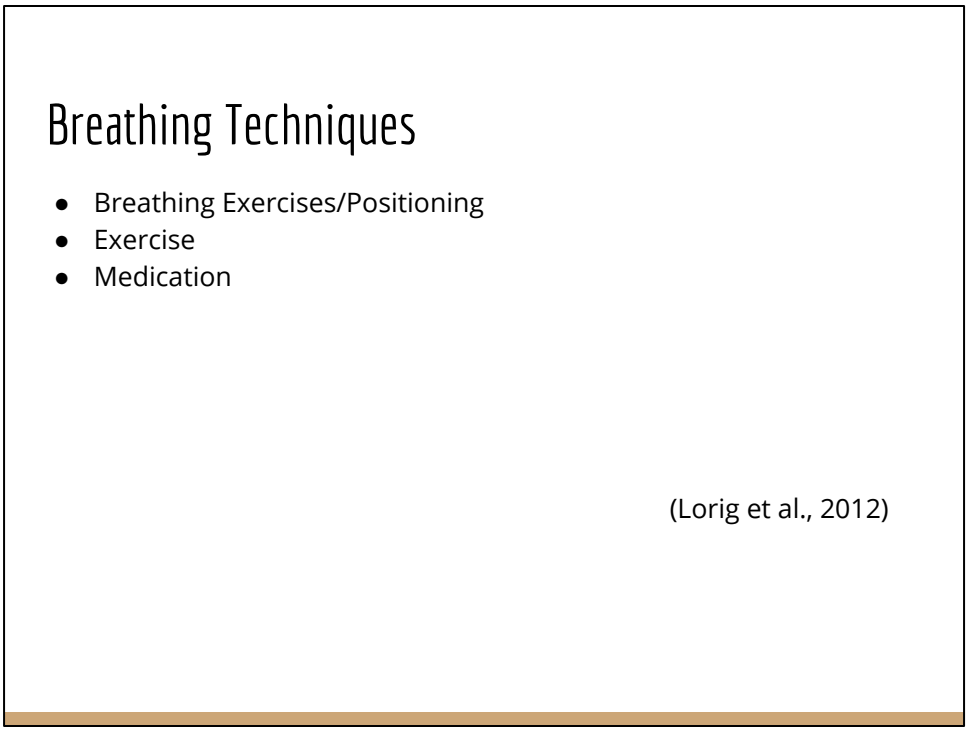
Exercise:

- Without exercise, a client's muscles and other body tissues become deconditioned and weak. This can cause them to feel tired and fatigued quicker than if their muscles and tissues were conditioned and strong.

- By exercising, clients can keep their bodies strong and be physically prepared to participate in valued daily occupations and activities without getting fatigued.
- Refer to “Exercise” section.

Stress Reduction:

- Excess energy can be expended as the client attempts to cope with his or her stressors.
- The provision of stress reduction techniques helps to ensure that the client is practicing efficient and useful strategies to manage his or her stress. By appropriately managing stress, clients may experience diminished levels of fatigue.
- The stress reduction worksheet allows clients to assess and analyze their daily stressors in order to establish an action plan for addressing such stressors.
- This worksheet should be completed in collaboration with the client to provide the therapist with opportunity to walk through the stress reduction process with the client.



Breathing Exercises/Positioning:

- Breathing exercises can help to relax the client's body both physically and psychologically.
- Appropriate positioning including standing, side-lying, forward lean sitting/standing can serve to open the chest cavity and allow efficient expansion of the lungs and can alleviate pressure on the chest.
- It is important that the client understand which activities and occupations cause breathing difficulties for them so they know when to complete breathing exercises or adapt their positioning.
- It is anticipated that the client will learn to incorporate the breathing exercises or positions into their daily occupations to prevent them from experiencing breathing difficulties all together.

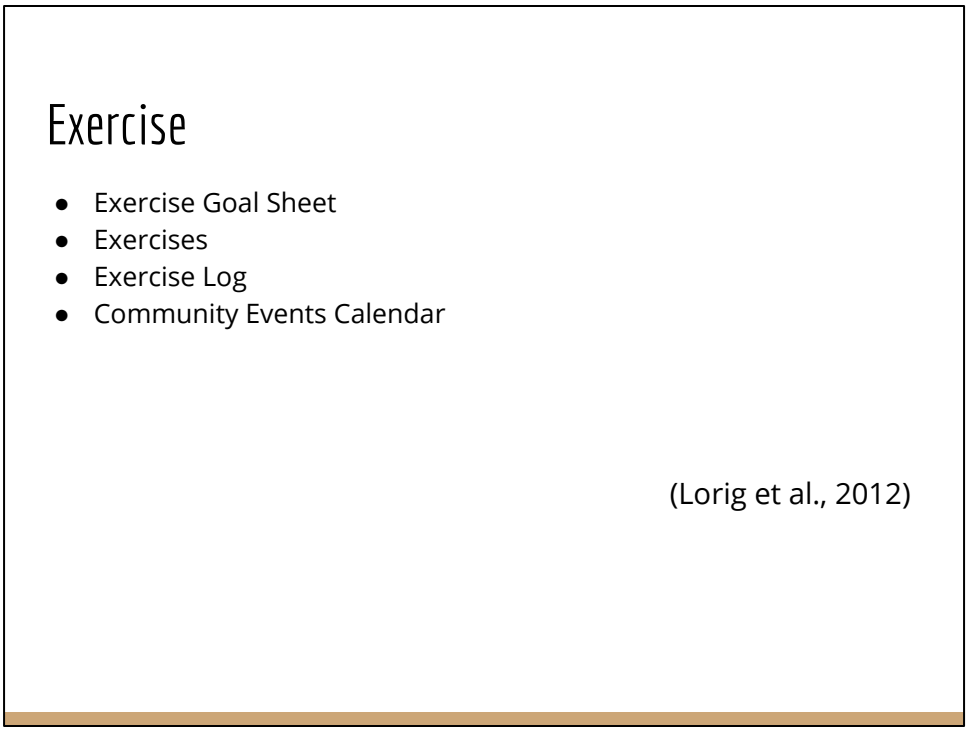
Exercise:

- Regular exercise is necessary to keep the client's body functioning properly and prevent further disease progression.
- Exercise can help diminish breathing issues experienced with chronic disease in a number of ways by strengthening lung muscles, increasing oxygen consumption rate, and loosening lung secretions.
- It is beneficial to attempt to help a client incorporate an exercise regimen into his or her current daily routine to prevent disruption of daily activities and to promote adherence to the program.

- See “Exercise” section.

Medication:

- Numerous medications can be used for breathing impairments.
- See “Medication Management” section.



Exercise Goal Sheet:

- The first step to motivate clients to engage in exercise is guiding them to determine what the meaningful benefits of exercise are in their life. The occupational therapist will collaborate with the client to determine what meaningful activities he or she has difficulty engaging in due to physical limitations of chronic condition(s).
- Establishing goals is a client-centered activity; therefore, it gives meaning to the exercises and is more motivating for clients.

Exercises:

- Lorig et al. (2012) identified flexibility, strength, balance, and endurance as essential areas of exercise to address with clients with chronic conditions.
- Occupational therapists are able to adapt exercises to the client's needs and abilities.
- Occupational therapists will explain and demonstrate exercises to the client.

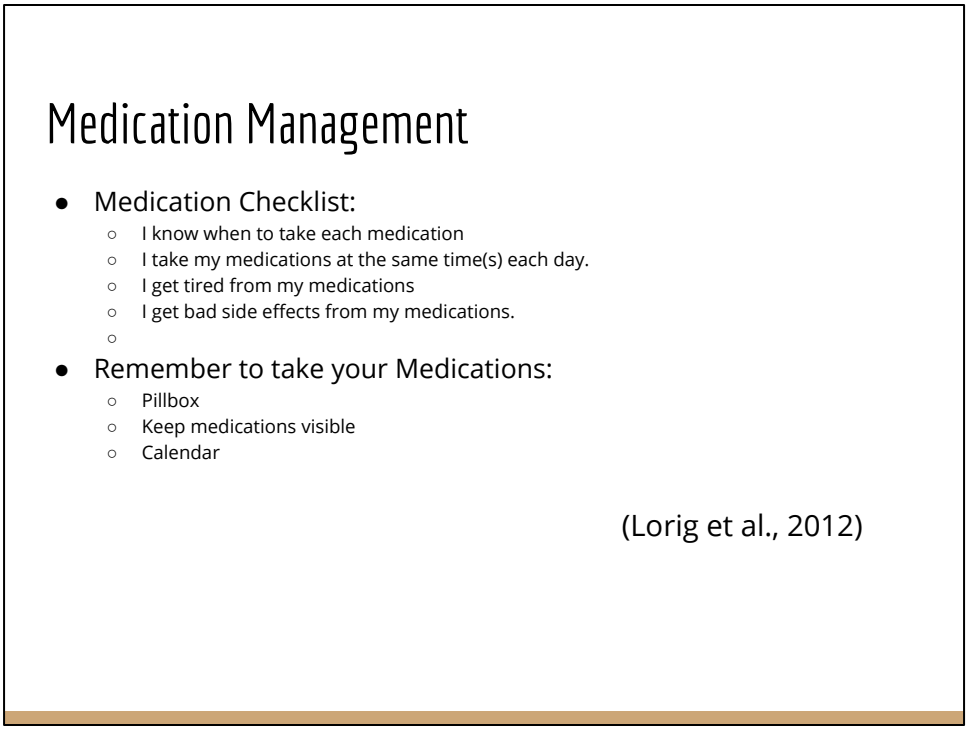
Exercise Log:

- The exercise log is designed to help clients keep track of when they exercise and what they do.

- Having a routine is essential to developing a consistent pattern of engaging in exercise. Occupational therapists are skilled at addressing client's routines. The occupational therapist may discuss with the client what time of day works best for them to exercise and what exercises they enjoy the most or find most useful.
- The log is designed so clients can try different exercises and keep track of how they felt completing a respective exercise ("it was fun," "it was difficult to do in the evening when I was tired," etc.).
- The exercise routine should be developed around the client's goal and preferences to ensure it is a plan the client will be motivated to adhere to.

Community Events Calendar:

- A community events calendar will provide different exercise opportunities for clients to vary their exercise routines.
- Occupational therapists are able to connect clients with community events that will promote their health and well-being.
- It is recommended occupational therapists check local community websites, community newspapers, church exercise programs, park district events, or classes offered by local fitness clubs to find opportunities for events that promote physical engagement.
- The occupational therapist can provide the client with the date, time, location, and cost of the various community events.



Medication Management

- Medication non-adherence creates an obstacle for achieving better outcomes for clients (Marengoni et al., 2016). In order to promote medication adherence, interventions require a client-centered approach (Marengoni et al., 2016). Occupational therapists are well equipped to approach clients with a holistic view and utilize strategies for collaboration. Therefore, occupational therapists can help clients establish or maintain medication adherence by considering all aspects of a client's life and discussing with the client how his or her medication impacts what he or she does. Occupational therapists can collaborate with clients to find effective ways to implement medication administration into daily routines.

Medication Checklist:

- Helps occupational therapist understand how the client currently views and uses medications.
- Opportunity to collaborate with the client.
- Determine if there are adverse side effects experienced with medications (such as fatigue) to determine if medication administration time could be changed so the medication routine better matches the client's daily routine.

Remember to take your Medications:

- This handout has a variety of strategies the occupational therapist can discuss with the client to enhance medication adherence.
- Strategies to help the client remember when to take medications.
- Strategies so the client knows they already took their medications so they don't accidentally take them twice.
- Collaborative approach with client.
- Fit best strategies into client's routine (client-centered, holistic view).

Summary

- Occupational therapists have been shown to provide cost-effective preventive strategies that result in reduced hospitalizations and falls and enhanced quality of life.
- Occupational therapists are well-equipped to work with older adult clients with chronic conditions.
- The U.S. healthcare system as a whole has potential to benefit from inclusion of occupational therapy within the primary care service delivery system.

Questions, Comments, or Concerns

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Occupational Therapy in Primary Care for Older Adults with Chronic Conditions

What is occupational therapy?

Occupational therapy is a master's to doctoral level health profession that focuses on providing clients with intervention strategies that assist them in participating in and performing valued daily activities and occupations.

What are the benefits of including occupational therapy in a primary care setting?

- Reduction in unnecessary hospitalizations (Bodenheimer, Lorig, Holman, & Grumbach, 2002; Donnelly Brenchley, Crawford, & Letts, 2014; Killian, Fisher, & Muir, 2015; Rogers, Bail, Lavin, & Anderson, 2016; Wilkins, Jung, Wishart, Edwards, & Norton, 2003)
- Provision of cost-effective care by decreasing the need for future health care services (Hay et al., 2002; Jackson, Carlson, Mandel, Zemke, & Clark, 1998).
- Enhanced quality of life (Hand, Law, & McColl, 2011; Jackson et al., 1998; Wilkins et al., 2003)
- Delayed effects of aging (Clark et al., 2012)
- Prevention of falls (Mackenzie, Clemson, & Roberts, 2013)
- Promotion of proactive prevention strategies (Bodenheimer et al., 2002; Muir, 2012)
- Enhanced follow-through with interventions (Hand et al., 2011)

What services can occupational therapy provide for clients with chronic conditions?

Occupational therapists can provide interventions to assist clients in performing, participating in, and engaging in valued daily occupations. Interventions are individually determined based upon client needs, abilities, and preferences. Occupational therapists aim to empower clients to serve as agents of change in their own therapy process through establishment of self-management and preventive strategies. Specifically, to promote health and prevent the disabling effects of chronic conditions in older adults, occupational therapists can provide client-centered interventions in the following areas:

- Pain Management
- Fatigue Management
- Breathing Techniques
- Exercise
- Medication Management

Kate Gearman, OTS & Tessa Richards, OTS
Department of Occupational Therapy
UND School of Medicine and Health Sciences-Suite E321
1301 N. Columbia Road Stop 9037
Grand Forks, ND 58202-9037

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Section II

Occupational Therapist Guide to the Therapy Process

Introduction

This clinical guide was created to provide occupational therapy practitioners with materials and intervention strategies to use throughout the therapy process with older adults experiencing chronic conditions. *Figure 1: Occupational Adaptation Schematic* (p. 92) provides a framework for the evaluation and intervention process that correlates with the Occupational Adaptation model. An *Occupational Therapy Evaluation* including an *Occupational Profile Interview* (p. 94) was developed to guide the evaluation process. The *Occupational Therapy Outcome Measure* (p. 97) included is the Relative Mastery Measurement Scale (RMMS) based on the Occupational Adaptation model (George, Schkade, & Ishee, 2004). The RMMS is intended to measure a client's perceptions of efficiency, effectiveness, and satisfaction in his or her individual response to daily occupational challenges and it was included to be administered in a pretest-posttest format as an outcome measure for the product interventions (George et al., 2004). In addition, a table was created to organize assessments for chronic disease and self-management to provide additional resources for occupational therapy practitioners (Table 1, p. 98). A section on *Self-Management* strategies (p. 103) was included to inform occupational therapy practitioners of the importance of empowering clients to manage their chronic conditions throughout the therapy process. Lastly, this section includes guides for occupational therapy practitioners to implement intervention strategies for pain management (p. 114), fatigue management (p. 121), breathing techniques (p. 127), medication management (p. 132), exercise (p. 138), and additional resources (p. 144).

The *Occupational Profile Interview* was developed with consideration of elements of the Occupational Adaptation model. The *Person/Environment* portion of the

interview includes questions that guide the therapist to assess the roles and responsibilities of the client, the client's daily routine, and the client's current adaptive response patterns. The *Occupational Challenge* section of the interview considers what is limiting the client's engagement in occupational activities. Lastly, the *Client Response* section allows the client to evaluate his or her ability to create and generalize an adaptive response and his or her desire to achieve greater levels of mastery in certain areas. The occupational therapist may guide the client to establish a therapeutic goal and together the occupational therapist and client may collaborate to decide which intervention approaches may assist in establishing adaptive capacity and support progress toward the respective goal.

The interventions included in this product were developed with consideration of the role of an occupational therapist as a primary care provider for older adults living with chronic conditions. Considering chronic conditions are long-lasting and impact nearly every aspect of an individual's life, occupational therapists are well-equipped to address the needs of this population. The provided interventions were developed with a focus on wellness and prevention of the disabling effects of chronic conditions. The interventions were designed for the occupational therapist to consider the client from a holistic viewpoint that encompasses every aspect of the client's life. Therefore, interventions may need to be modified based on the needs of the client. In addition, client and therapist collaboration is essential to the successful implementation of the included interventions.

It is recommended that occupational therapy practitioners make use of Taylor's (2008) therapeutic modes and strategies throughout the therapy process. Appropriate use

of Taylor's (2008) therapeutic modes will likely enhance the levels of engagement and motivation of the client and promote self-management. Choosing an appropriate therapeutic mode is specific to the needs of each client and any of Taylor's (2008) six therapeutic modes may prove effective. With consideration to the population and the long-lasting nature of chronic conditions, occupational therapy practitioners are encouraged to make use of the collaborating, empathizing, encouraging, instructing, problem-solving, and advocating modes as needed (Taylor, 2008). It is recommended that occupational therapy practitioners evaluate personal preferences as well as the needs of the client to determine which mode will be beneficial throughout different points of the therapy process.

The main goal of each of the included interventions is for clients to develop or maintain the ability to self-manage their chronic illness. The provided interventions include skills, strategies, and concepts that are meant for client education so the client can generalize the principles to all areas of his or her life. The role of the occupational therapist is meant to be that of a consultant or educator providing information and resources to the client and facilitating internal adaptation. The included interventions address many of the common needs of individuals with chronic conditions. These include pain management, fatigue management, breathing techniques, medication management, and exercise. Occupational therapists are encouraged to place an emphasis on self-management throughout use of each of the intervention strategies included.

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Application of Occupational Adaptation Model to the Therapy Process

Figure 1: Occupational Adaptation Schematic (p. 92) depicts elements of the Occupational Adaptation model that are present in the evaluation and intervention process presented. The information included throughout this process was adapted from Turpin and Iwama (2011) and is an authentic work of the authors. The first step represented in the schematic is to evaluate the client's occupational roles and environments. At this point in the therapy process, the occupational therapist considers who the client is as a person, the environment the client acts in, and the interaction between these two components. The next step in the process is to identify that the client is experiencing a problem or limitation due to his or her chronic health condition. This demonstrates that the client is experiencing an occupational challenge and that there is a need for a changed response. In the next part of the evaluation process, the occupational therapist evaluates the client to determine how client factors, performance skills and performance patterns inhibit or facilitate the client's ability to address the problem. The occupational therapist then evaluates how the client typically responds to the problem they are experiencing. If the client's typical response is not effective or satisfactory the occupational therapist collaborates with the client to implement client-centered intervention strategies to better address the problem.

Throughout the intervention process the occupational therapist and client collaboratively reflect on the client's changed response to the problem. The response is evaluated with regards to its efficiency and effectiveness. The client also evaluates the satisfaction of the response to his or her self and society. Each of these aspects is evaluated to determine if they have a positive, negative, or neutral impact when

addressing the client's identified occupational challenge. If the client's adaptive response has a positive effect, the response is evaluated and considered to determine how it can be generalized to address other issues or challenges. In the event the response has a negative effect, the client must consider what can be done differently in the future to result in a more effective response. Lastly, if the response has a neutral outcome, the client must evaluate whether the response is sufficient for what he or she wants or needs to do or whether a different response to the problem can have more positive outcomes. This process is considered throughout the evaluation and intervention process presented.

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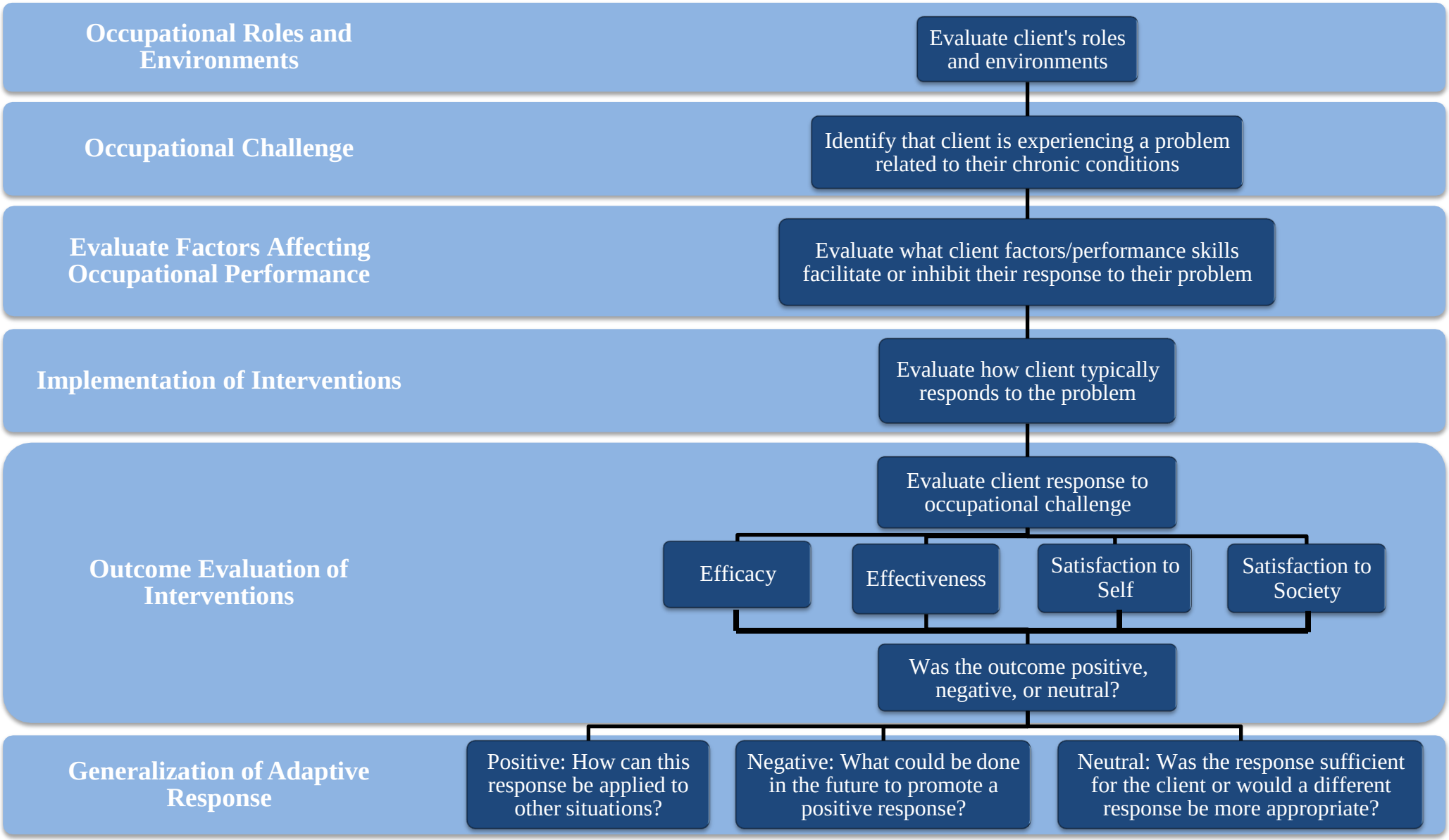
Figure 1: Occupational Adaptation Schematic 92



This information was adapted from Turpin and Iwama (2011) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Evaluation & Assessments

Occupational Therapy Evaluation

Name of Client: _____ **Date of Birth (DOB):** _____

Name of Therapist: _____ **Date of Evaluation:** _____

Primary Diagnosis(es)/Concern(s): _____

_____

Precautions/contraindications: _____

_____

_____

Medical History: _____

Reason for referral to Occupational Therapy: _____

_____

Occupational Profile Interview

Person/Environment:

Tell me about yourself.

_____

_____

What does your typical day look like?

_____

_____

What activities do you need to perform each day?

_____

_____

How do you fulfill the tasks required of you each day?

_____

_____

Occupational Challenge:

How do your current symptoms impact your daily routine?

_____

_____

What daily tasks or activities are you experiencing difficulty with?

_____

_____

What is limiting your engagement in those activities?

_____

_____

How do you feel about your current level of participation in those activities?

_____

_____

Client Response:

What are some of the strategies you use to manage the symptoms of your chronic illness?

_____

_____

What concerns do you wish to address in therapy?

_____

_____

What do you feel good about and wish to keep doing with regards to your chronic disease management?

_____

_____

<u>Goal Setting:</u>

What goals do you have to improve your ability to manage your chronic condition?

_____

_____

_____

Client is interested in strategies to work on:

- ❑ **Pain Management**
- ❑ **Fatigue Management**
- ❑ **Breathing Techniques**
- ❑ **Exercise**
- ❑ **Medication Management**

Occupational Therapy Outcome Measure

Relative Mastery Measurement Scale (RMMS)

Administration Instructions:

1. *Begin administration only after the client has read and signed an informed consent.*
2. *Administer the items in the order they appear on the scale (#1-12).*
3. *Do not attempt to paraphrase or define the terms or words used in any items [e.g., successful/failed/desired level]. The meaning of these words is likely unique to each person and therefore each client must interpret the terms/words for themselves. Allowing clients to define the terms/words will allow an assessment of whether or not the scale works.*
4. *If a client does not understand any item(s), you may repeat them as many times as needed before going on to the next item.*
5. *If after repeating an item a number of times, and after encouraging a client to either agree or disagree with the item, you may circle the item number of any item to reflect a client's inability to respond.*

Read the following instructions exactly as they appear:

"Tell me the name of an important activity that you have recently performed in occupational therapy."

"Thinking back on your most recent performance of this activity, tell me whether you 'agree' or 'disagree' with the 12 statements I am about to read to you. I will be recording your responses as we go along." If a client changes their mind before going on to the next question, please place an X over their first answer and circle their new answer.

(Raters: Circle A for Agree and D for Disagree).

1.	A	D	My performance was not adequate to complete the task.
2.	A	D	I completed the task within about the same time frame it usually takes.
3.	A	D	Overall, I am satisfied with myself regarding this activity.
4.	A	D	I felt physically or mentally tired after finishing the task.
5.	A	D	People other than my family and friends would be happy with my level of ability on this task (give an example that relates to this person and task).
6.	A	D	I did not produce the result I expected.
7.	A	D	I am very pleased with my performance of this task.
8.	A	D	I failed to complete all steps of the task.
9.	A	D	The task took a great deal more time than is typical for me.
10.	A	D	I am aware of people, equipment, and techniques that would help make this task easier.
11.	A	D	My family members would not be happy with my performance of this task.
12.	A	D	I successfully completed the task.

George, L., Schkade, J., & Ishee, J. (2004). Content validity of the relative mastery measurement scale: A measure of occupational adaptation. *The Occupational Therapy Journal of Research, 24*(3), 92-102.

Assessments for Chronic Disease and Self-Management

Table 1. Assessments for Chronic Disease and Self-Management

Assessment	Purpose	Type of Assessment	Time to Administer	Reference
Stanford Self-Efficacy for Managing Chronic Disease 6-item Scale (SSE)	Evaluate self-efficacy of clients with chronic disease	Self-report rating scale	10 minutes	(O'Toole, Connolly, & Smith, 2016)
Canadian Occupational Performance Measure (COPM)	Measure client's perception of occupational performance over time	Semi-structured, interview-based rating scale	30-40 minutes	(Schultz-Krohn, 2014)
Relative Mastery Measurement Scale	Measure client's perceptions of efficiency, effectiveness, and satisfaction in his or her response to occupational challenge	Self-rating scale	5 minutes	(George, Schkade, & Ishee, 2004)
Frenchay Activities Index (FAI)	Measure frequency at which client participates in community-based and social activities	Self-rating scale	5 minutes	(O'Toole, Connolly, & Smith, 2016)
Assessment of Life Habits	Assess client's perceptions of difficulty with and assistance required for various life habits	Self-report	5-30 minutes	(Raad, 2011)

Nottingham Extended Activities of Daily Living Scale (NEADL)	Measure client's ability to perform daily activities	Self-report scale	Not specified	(O'Toole, Connolly, & Smith, 2016)
Chronic Respiratory Disease Questionnaire	Measure impact of client's diagnosis of Chronic Obstructive Pulmonary Disease (COPD) on his or her life	Questionnaire	15-30 minutes	(Raad, 2012)
Depression Anxiety Stress Scale	Measure and assess client's symptoms of depression, anxiety, and tension/stress	Self-report	5-10 minutes	(Raad, 2013)
Occupational Performance History Interview-II (OPHI-II)	Measure client's occupational identity and competence and understand client's life history	Three parts: Semi-structured interview, rating scale, and life history narrative	1 hour	(Schultz-Krohn, 2014)
Quality in Later Life (QuiLL)	Assess older adult's subjective concerns and objective circumstances that impact his or her quality of life	Self-report questionnaire	10-15 minutes	(Martin, 2014)
Fatigue Assessment Inventory (FAI)	Measure client's level of fatigue and assess triggers of fatigue	Self-report rating scale	5-10 minutes	(Mortera & D'Amico, 2014)

Falls Efficacy Scale (FES)	Assess client's confidence in performance of Activities of Daily Living (ADL) without falling	Self-report or interview-based questionnaire and rating scale	Not specified	(Mortera & D'Amico, 2014)
Stress Profile	Identify client characteristics and behaviors that protect against or contribute to stress-related illness	Self-report inventory and rating scale	20-30 minutes	(Mortera & D'Amico, 2014)
Pain Patient Profile	Assess client's emotional response to pain	Self-report multiple-choice questionnaire	12-15 minutes	(Haynes & Anderson, 2014)
Brief Pain Inventory	Assess client's pain intensity and impact on daily functioning	Self-report or interview and rating scale	5-10 minutes	(Haynes & Anderson, 2014)
Beck Depression Inventory, 2nd Edition	Measures client's severity of depression	Interview-based questionnaire	5-10 minutes	(Crist, 2014)
Role Checklist (RC)	Assess client's perception of participation in past, present, and future roles	Questionnaire and rating form	15 minutes	(Reed, 2014)

This table is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Assessment References

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Self-Management

Self-Management

Self-management has been defined as "the individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and lifestyle changes inherent in living with a chronic condition" (Barlow, Wright, Sheasby, Turner, & Hainsworth, 2002, p. 178). Self-management strategies have demonstrated usefulness for individuals with chronic conditions (Lorig, Homan, Sobel, Laurent, Gonzalez, & Minor, 2012a). In addition, Griffin, McKenna, and Tooth (2006) reported that due to the high incidence of chronic disease in the older adult population, this group benefits from the use of self-management strategies. With this population, education techniques can be used to increase the client's involvement in the therapy process, thus enhancing self-efficacy and control (Griffin et al., 2006). Although each chronic condition has its own recommended intervention strategies and must be addressed on an individualized basis, the establishment of broad self-management skills can serve to benefit all clients receiving healthcare services.

Occupational therapy practitioners employed in primary care settings have the unique opportunity to address chronic disease management with older adults before the disease progresses and leads to further and more complex health concerns. Through introducing self-management strategies to this population, occupational therapists can enhance their role in preventive care and aid clients in becoming more active agents in their healthcare. Research has demonstrated strong evidence that occupational performance is enhanced through programs that are developed around a client's preferences and focus on self-management (Arbesman & Mosley, 2012). Self-management programs have demonstrated that use of self-management strategies by

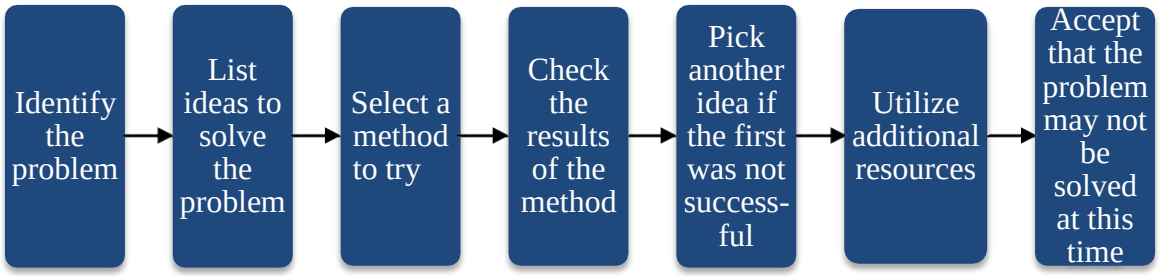
clients with chronic conditions can have positive effects on the client's perception of their occupational performance, satisfaction with their performance, frequency of participation in daily occupations, and overall self-efficacy, validating the use of such strategies with this population (O'Toole, Connolly, & Smith, 2013)

The practice of self-management aligns with the Occupational Adaptation model used to guide the occupational therapy process in that the use of self-management strategies requires the client to create an internal adaptation or change that results in enhanced occupational response and performance (Turpin & Iwama, 2008). This adaptive response is the result of the implementation of problem-solving strategies by the client. As clients experiencing chronic conditions encounter occupational challenges throughout the course of their lives, they are encouraged to establish strategies for solving such problems in order to develop an adaptive response to overcome such challenges, resulting in enhanced occupational performance (Lorig et al., 2012a; Turpin & Iwama, 2011).

One problem-solving strategy involves 1) identifying a problem, 2) listing ideas to solve the problem, 3) selecting a method to try, 4) checking the results of the method, 5) picking another idea if the first method was unsuccessful, 6) utilizing additional resources, and 7) accepting that the problem may not be solved at this time (Worksheet 1) (Lorig et al., 2012a). Another method used to establish problem-solving and decision making skills includes development of a pros and cons list regarding the decision to be made (Worksheet 2) (Lorig et al., 2012a). With use of this strategy, the occupational therapist encourages the client to rate the importance of each item they identified as a pro or con using a scale from 1-10. The client then adds the total of each section, and makes a decision based on the total level of importance of the two lists (Lorig et al., 2012a). Use

of a short-term action plan can help clients establish self-management skills necessary for making decisions regarding their individual care plan by having the client develop specific action-based goals that directly address chronic disease intervention implementation (Worksheet 3) (Bodenheimer, Lorig, Holman, & Grumbach, 2002).

Worksheet 1
Steps to Problem-Solving



1. Identify a problem:

   _____

2. List ideas to solve the problem:

   _____

   _____

3. Select a method to try:

   _____

   _____

4. Check the results of the method (positive or negative):

   _____

   _____

5. Pick another idea if the first method was unsuccessful:

   _____

   _____

6. Additional resources:

   _____

   _____

7. Accept that the problem may not be solved at this time.

This worksheet was adapted from Lorig et al. (2012a) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Worksheet 2
Decision Making: Pros & Cons

Decision to be made:

Pros: **Rating (1-10):**

1.

2.

3.

4.

5.

Total pros rating:

Cons: **Rating (1-10):**

1.

2.

3.

4.

5.

Total cons rating:

This worksheet was adapted from Lorig et al. (2012a) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Worksheet 3
Short-term Action Plan

	Yes	No
Is the action plan something you want to do?		
Is the action plan achievable (accomplished in one week)?		
Is the action plan action specific?		
Does the action plan answer the questions What? How much? When? and How often?		
How sure are you that you will accomplish the action plan? (0=not at all sure, 10=absolutely sure) For plans resulting in answering no to the above questions and/or ratings under 7, revise action plan.		

This worksheet was adapted from Lorig et al. (2012a) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Self-Management References

Arbesman, M., & Mosley, L. J. (2012). Systematic review of occupation-and activity-based health management and maintenance interventions for community-dwelling older adults. *American Journal of Occupational Therapy, 66*(3), 277-283. doi:10.5014/ajot.2012.003327

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Therapist Intervention Overview

Pain Management

Pain Management
Occupational Therapist Guide

Pain is a primary symptom of numerous chronic health conditions. To varying degrees, pain has been reported to accompany the following chronic conditions: arthritis, cancer, chronic heartburn and acid reflux, chronic pain, diabetes, heart disease, hepatitis, HIV disease (AIDS), inflammatory bowel disease, irritable bowel syndrome, kidney stones, multiple sclerosis, Parkinson's disease, peptic ulcer disease, and diabetes, among others (Lorig, Homan, Sobel, Laurent, Gonzalez, & Minor, 2012e). The experience of pain results from the response of the mind and the body to a pain stimulus and physiological pain response within the body (Lorig, Homan, Sobel, Laurent, Gonzalez, & Minor, 2012f). The presentation of pain can have a negative impact on a client's ability to actively participate in valued daily occupations. The extent to which pain hinders occupational performance depends upon location of pain, severity of pain, and capacity to manage pain. Treatment for pain experienced with chronic conditions may include physical exercise; cognitive relaxation techniques; ice, heat, massage, and medication (Lorig et al., 2012f).

Types of Pain

Acute pain: pain with a sudden onset that can last for seconds to days

Chronic pain: pain with gradual or recurrent onset that is long-term

Referred pain: pain that presents in an area other than where injury occurred

Visceral pain: pain with a sudden onset and poor localization

Somatic pain: pain that is consistent and localized

Neuropathic pain: pain that results from injury or disease to the peripheral nervous system (PNS) or central nervous system (CNS)

Intervention Strategies

Pain Survey

A pain survey provides the client with a written record of their pain experience. This document also provides the therapist with information regarding the client's experience with pain that can be used to devise further intervention plans and serves to monitor the effectiveness of self-management techniques. The therapist will ask the client to log in a pain journal each time he or she experiences pain. The client will also be encouraged to document factors that help to define the pain experience including: location of pain, type of pain, intensity of pain, activities engaged in prior to or during experience of pain, duration of pain, emotions experienced with pain, what relieved/intensified pain, activities that are made difficult due to pain, and intervention that alleviated pain, as applicable (Lorig et al., 2012f). If a client reports experiencing constant pain, have him or her complete a pain survey three to four times throughout the day at consistent intervals. The survey should be reviewed with the client periodically, or by the client alone, to help inform the intervention process. Information from the pain survey can encourage the client to engage in problem-solving strategies to help determine appropriate interventions that can be incorporated into his or her daily routine and can enhance participation in occupations and overall occupational performance.

Exercise

Regular exercise is necessary to keep the client's body functioning properly and to prevent further disease progression. Exercise can help alleviate pain experienced with

chronic disease in a number of ways as exercise helps to increase blood circulation, strengthen muscles and bones, stabilize joints, and decrease anxiety and depression. It is beneficial to attempt to help a client incorporate an exercise regimen into his or her current daily routine to prevent disruption of daily activities and to promote adherence to the program. If the client is unable to physically participate in exercise, he or she may benefit from a referral to physical therapy services. See and refer client to the "Exercise" section (p. 174) for further information on this topic.

Relaxation, Imagery, Visualization

Practicing relaxation techniques can help a client to calm his or her body both physically and psychologically. Decreasing body tension and alleviating anxious thoughts can help reduce pain sensation and help to better manage pain symptoms. Relaxation techniques can be incorporated into the client's current daily routine or implemented before, during, or after performance of daily occupations that increase the client's levels of stress and anxiety. If the client experiences difficulty with relaxation strategies or requires additional assistance, he or she may benefit from a referral to a licensed psychologist or pain management physician. Refer to the "Additional Resources" section (p. 144) for further resources on this topic.

Ice, Heat, Massage

Ice, heat, and massage are physical agent modalities (PAMs) commonly used to help alleviate pain. Heat and massage can help to stimulate tissue and enhance blood flow while ice can help to diminish the conduction of nerves in the painful area (Bracciano, 2008). While there are strategies to treat pain that can be used at home by the client, administration of many modalities must be completed by an occupational therapy

practitioner certified in PAMs. PAMs can be utilized before, during, or after client participation in therapeutic activities or occupations (Bracciano, 2008). When using ice or heat at home, the client must be cautioned to assess the temperature to prevent burns. Heat and cold should be applied for no longer than 15-20 minute intervals. The client must be trained by the occupational therapist prior to applying any of the listed modalities. Table 2 is not comprehensive of all physical agent modalities.

Table 2. Application of Physical Agent Modalities

Application of Modalities at Home	Application of Modalities by Professional
Heating pad	Paraffin
Warm bath or shower	Hot pack
Warmed rice/dry bean sack	Whirlpool/immersion bath
Cold pack	Ice massage
Contrast bath/pack	Ice towel
Simple massage	Transverse friction massage
	Cold compression
	Vapocoolant spray
	Fluidotherapy

This table is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Medication

There are numerous medications that can be used to diminish sensation of pain. Medication strength varies and it is important to emphasize that clients discuss pain medication options with their primary care physician. Consulting with the physician ensures that clients are taking the medication that is appropriate for their type of pain and that does not interact with other medications they may be taking. For further information on medication used to treat pain resulting from chronic disease, refer clients to their primary care physician or pharmacist. See and refer client to the "Medication Management" section (p. 170) for further information on this topic.

Table 3 provides a list of pain assessments that can be used by an occupational therapist to obtain client report of pain experience. It is recommended that occupational

therapists select the one best measure for use with their client in conjunction with the respective inter-professional team.

Table 3. Pain Assessments

Assessment	Purpose	Type of Assessment	Reference
McGill Pain Questionnaire	Quantitative 3 part assessment to help the practitioner understand the client's experience with pain (location, intensity, type, change over time)	Self-report	(Bracciano, 2008)
Visual Analog Scale	To assess the client's level/type of pain using a 10 cm line with ends marked "no pain" and "pain as bad as it could be"	Self-report	(Bracciano, 2008)
Wong-Baker FACES Pain	To assess the client's level/type of pain using cartoon faces, created for children	Self-report	(Bracciano, 2008)
Verbal Analog Scale	To assess the client's level/type of pain using a numerical scale of 1-10, verbal form of the visual analog scale	Self-report	(Bracciano, 2008)

This table is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Pain Management References

Bracciano, A. G. (2008). Pain theory and perception. In A. G. Bracciano (Ed.), *Physical Agent Modalities: Theory and application for the occupational therapist (2nd Ed.)* (pp.63-75). Thorofare, NJ: SLACK Inc.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012e). Overview of self-management. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 1-14). Boulder, CO: Bull Publishing Company.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012f). Understanding and managing common symptoms. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 35-67). Boulder, CO: Bull Publishing Company.

Fatigue Management

Fatigue Management
Occupational Therapist Guide

Fatigue is a physical, mental, and emotional symptom experienced by clients with chronic conditions including: arthritis, asthma and lung disease, cancer, chronic pain, congestive heart failure, depression, diabetes, heart disease, hepatitis, HIV disease (AIDS), multiple sclerosis, Parkinson's disease, renal failure, and stroke (Lorig et al., 2012e). Due to the extended duration of chronic diseases, reduced energy and fatigue are commonly reported. Experiencing chronic fatigue can hinder performance in daily activities and prevent clients from participating in occupations that are valued and hold meaning in their lives. Fatigue that accompanies chronic diseases can be unpredictable, further emphasizing the need for continuous implementation of fatigue management strategies. Fatigue management strategies have been perceived by clients with multiple sclerosis to be very effective (Matuska, Mathiowetz, & Finlayson, 2007). Interventions for fatigue may include energy conservation strategies, journaling, exercise, and stress reduction techniques (Lorig et al., 2012f).

Intervention Strategies

Energy Conservation Strategies

Practicing energy conservation techniques can help clients save energy and reduce feelings of fatigue. Once it is better understood which occupations or activities cause fatigue for a client, he or she can be provided an energy conservation strategy handout that can assist in problem-solving and determining appropriate changes to make to result in less energy consumption and, ultimately, fewer feelings of fatigue. Some strategies may work better than others, so it is important that the occupational therapist encourage

the client to engage in problem-solving techniques and try different strategies until they find the ones that work best for them.

Fatigue Survey

Writing about experiences after participating in daily activities can help clients better understand when and how their body experiences fatigue. The clients will be asked to journal about their daily activities and occupations including: their morning/evening routine, community outings, social activities, housework, exercises, cooking, bathing, etc. The clients will write down what activity they participated in, how they felt (physically, cognitively, emotionally) before/during/after participating in the activity, any experience of fatigue, how long the fatigue lasted, what they did to alleviate the fatigue, and any impact the fatigue had on their participation in other activities throughout the rest of the day.

The survey should be reviewed with the client periodically, or by the client alone, to help inform the intervention process. Information from the fatigue survey can encourage the client to engage in problem-solving strategies and assist in determining appropriate interventions that can be incorporated into the client's daily routine and can enhance participation in occupations and overall occupational performance. Information from the survey can help the client understand what activities result in fatigue and will allow them to plan their days around activities that cause fatigue in order to function more efficiently in daily life. This activity may also serve to identify additional external factors that may be resulting in fatigue, such as a poor diet or lack of sleep. In addition, the activity may facilitate clients to identify modifications that can be made to occupations in order to promote healthy occupational participation and performance.

Exercise

Moderate levels of exercise can help to diminish experience of fatigue. Without exercise, a client's muscles and other body tissues become de-conditioned and weak (Lorig et al., 2012f). This can cause individuals to feel tired and fatigued quicker than if their muscles and tissues were conditioned and strong. By exercising, clients can keep their body strong and be physically prepared to participate in valued daily occupations and activities without getting fatigued. If the client is unable to physically participate in exercise, he or she may benefit from a referral to physical therapy services. See and refer the client to the "Exercise" section (p. 174) for further information on this topic.

Stress Reduction Techniques

Experiencing high levels of stress can be fatiguing for a client, especially those diagnosed with chronic diseases in which fatigue is a primary symptom. Excess energy can be expended as the client attempts to cope with their stressors. The provision of stress reduction techniques helps to ensure that the client is practicing efficient and useful strategies to manage their stress. By appropriately managing stress, clients may experience diminished levels of fatigue. Decreased reports of fatigue have the potential to have a positive impact on occupational performance as the client may have more energy to perform valued daily activities.

The stress reduction worksheet should be completed in collaboration with the client to provide the therapist with the opportunity to walk through the stress reduction process with the client. The therapist will begin by assisting the client in identifying life stressors and categorizing them into the following four categories: important/changeable, important/unchangeable, unimportant/changeable, and unimportant/unchangeable (Lorig

et al., 2012f). The therapist will then work with the client to develop a plan to eliminate their stressors. Because this is a complex process, it is recommended that the therapist works with the client to complete this worksheet until the client demonstrates competency in identifying his or her own stressors and developing an appropriate action plan. Following are strategies that may be discussed with the client when establishing a plan to alleviate or decrease stress in order to enhance participation in daily occupations:

Strategies to view/deal with stressors:

Important/Changeable

- Problem-solve ways to change the stressor
- Create goals toward achieving the change

Important/Unchangeable

- Think about how the situation could be worse
- Find a part of the situation that you can change
- Assess the importance of the stressor in regards to your daily life
- Change your emotional response to the stressor

Unimportant/Changeable

- Try letting the stressor go
- Problem-solve ways to change the stressor
- Create goals towards achieving the change

Unimportant/Unchangeable

- Try letting the stressor go

(Lorig et al., 2012f)

Fatigue Management References

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012e). Overview of self-management. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 1-14). Boulder, CO: Bull Publishing Company.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012f). Understanding and managing common symptoms. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 35-67). Boulder, CO: Bull Publishing Company.

Matuska, K., Mathiowetz, V., & Finlayson, M. (2007). Use and perceived effectiveness of energy conservation strategies for managing multiple sclerosis fatigue. *American Journal of Occupational Therapy, 61*, 62–69.

Breathing Techniques

Breathing Techniques
Occupational Therapist Guide

Breathing issues, such as shortness of breath, are experienced by clients with various chronic conditions including: anxiety/panic disorder, asthma and lung disease, congestive heart failure, heart disease, and HIV disease (AIDS), to name a few (Lorig et al., 2012e). Inadequate breathing patterns can lead to a diminished exchange of the gases oxygen and carbon dioxide and can contribute to the symptoms of many chronic diseases (Davis, Eshelman, & McKay, 2008). Because chronic diseases are long term and due to the potentially life threatening breathing issues that can accompany chronic disease, particularly for older adults who are more prone to chronic diseases with breathing issues, management of this symptom is crucial. Demonstrating chronic shortness of breath, impaired breathing during activity, or labored breathing during an anxious episode can significantly decrease a client's participation in valued life activities and occupations. Additionally, the symptom itself can prevent clients from participating in health-enhancing activities such as exercise, further worsening their condition (Lorig et al., 2012f). The occupational therapist should introduce breathing techniques at a slow pace to allow the client's body time to adjust to the physiological effects of breathing interventions including an increased consumption of oxygen (Cara, 2013).

Intervention Strategies

Breathing Exercise/Positioning

Breathing difficulties occur as a result of numerous chronic diseases and can be addressed through completion of breathing exercises and appropriate positioning. Older adults may also experience age-related breathing difficulties, for which these exercises

can also assist. Breathing exercises can help to relax the client's body both physically and psychologically. Appropriate positioning including standing, side-lying, and forward lean sitting/standing can serve to open the chest cavity and allow efficient expansion of the lungs and can alleviate pressure on the chest (Lorig et al., 2012f). It is important that clients understand which activities and occupations cause breathing difficulties for them so they know when to complete breathing exercises or adjust their positioning. It is anticipated that a client will learn to incorporate the breathing exercise or position into his or her daily occupations to prevent or reduce the experience of breathing difficulties. It may be beneficial for older adult clients to have a copy of the exercises referenced below so they have them on hand if they are unable to memorize the various techniques.

Breathing Exercise References:

Cara, E. (2013). Anxiety disorders. In E. Cara and A. MacRae (Eds.), *Psychosocial occupational therapy: An evolving practice (3rd ed.)* (pp. 258-307). Clifton, NY: Delmar Cengage Learning.

Davis, M., Eshelman, E. R., & McKay, M. (2008). *The relaxation and stress reduction workbook (6th ed.).* Oakland, CA: New Harbinger Publications, Inc.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012c). Understanding and managing common symptoms. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 35-67). Boulder, CO: Bull Publishing Company.

Exercise

Regular exercise is necessary to keep the client's body functioning properly and to prevent further disease progression. Physical activity can help diminish breathing

issues experienced with chronic disease in a number of ways. Exercise helps to strengthen diaphragm muscles, increase oxygen consumption rate, and loosen lung secretions. It is beneficial to help a client incorporate an exercise regimen into his or her current daily routine to prevent disruption of daily activities and to promote adherence to the program. Exercise must be increased gradually to allow the client's body time to adjust to the physiological effects of exercise (Lorig et al., 2012f). If the client is unable to physically participate in exercise, they may benefit from a referral to physical therapy services. See and refer client to the "Exercise" section (p. 174) for further information on this topic.

Medication

There are various types of medications that can be used to enhance breathing. Medication strength varies and it is important to emphasize that clients discuss medication options with their primary care physician in order to ensure that they are taking the medication that is appropriate for their breathing impairment and does not interact with other medications they may be taking. For further information on medication used to treat breathing issues associated with chronic disease, refer clients to their primary care physician or pharmacist. See and refer client to the "Medication Management" section (p. 170) for further information on this topic. Note: similar practices should be followed when a client is prescribed oxygen.

Breathing Technique References

Cara, E. (2013). Anxiety disorders. In E. Cara and A. MacRae (Eds.), *Psychosocial occupational therapy: An evolving practice (3rd ed.)* (pp. 258-307). Clifton, NY: Delmar Cengage Learning.

Davis, M., Eshelman, E. R., & McKay, M. (2008). *The relaxation and stress reduction workbook (6th ed.).* Oakland, CA: New Harbinger Publications, Inc.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012e). Overview of self-management. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 1-14). Boulder, CO: Bull Publishing Company.

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Medication Management

Medication Management
Occupational Therapist Guide

Medications are commonly prescribed in today's healthcare system. Individuals with more than one health concern are likely receiving numerous treatments and therefore, taking one or more medications. Medications are an effective treatment for nearly all chronic conditions (Lorig et al., 2012e). It can be difficult for clients with chronic conditions to keep track of what medications to take and when to take them. Medication non-adherence creates an obstacle for achieving better outcomes for clients (Marengoni et al., 2016). In order to promote medication adherence, interventions require a client-centered approach (Marengoni et al., 2016). Occupational therapists are well-equipped to approach clients with a holistic view and utilize strategies of collaboration. Therefore, occupational therapists can help clients establish or maintain medication adherence by considering all aspects of a client's life and discussing with clients how their medication impacts what they do.

Intervention Strategies

Medication Checklist

The medication checklist was adapted from Lorig, Holman, Sobel, Laurent, Gonzalez, and Minor (2012d) to give the occupational therapist an idea of what areas the client may need help with in regards to medications. The occupational therapist can go through the checklist with each client. The client should be encouraged to circle the statements that are true of him or her. The occupational therapist may ask follow-up questions as he or she sees fit. Through discussing the factors influencing the client's medication use, the occupational therapist will develop an understanding of how to

provide effective interventions for the client's needs. Depending on how the client feels about his or her medications, the occupational therapist may need to collaborate with a nurse or physician. Changing the administration time of a medication to a different time may fit better with the client's routines; however, this must be discussed with a nurse or physician to ensure there are not adverse side effects to changing the medication time.

Remember to take your Medications

It can often be difficult for clients to remember to take their medications. This checklist was adapted from Justice (2013) and provides various ideas to help clients remember to take their medications. The checklist also includes strategies designed to remind clients when they have already taken a medication so they don't accidentally take more than the prescribed dose. The strategies included in the checklist were developed to reduce instances of medication non-adherence which may result from a client forgetting to take his or her medications or the client taking the incorrect dose. The occupational therapist can go through this list with each client and collaboratively determine what strategies will work best for the client. To assist the client, the occupational therapist should explain the strategies in more detail and provide relevant examples.

- Pillbox: For using a pillbox, the occupational therapist may need to explain how to do this or strategies that make this more effective. For example, the client may find it helpful to always leave the lid open after taking medications for the day so they can easily remember if they took them.
- Daily task: It may be helpful for a client to take their medications at the same time they complete a daily task. The daily task could be something such as reading the newspaper in the morning, making morning coffee, or watching the 6:00 pm

news. Whatever the daily task is, working medication administration into an established routine may enhance medication adherence.

- Technology: The occupational therapist may be able to help the client set up a system using technology, such as a phone or computer, to set alerts to remind the client to take his or her medications.
- Get help: The client may be open to suggestions to receive help with medications from other people, such as a life partner or child, in medication management.
- Keep medications visible: It may be helpful for the client to keep his or her medications someplace where they will be easily seen every day. This may be by their toothbrush on the bathroom counter or by the coffeepot in the kitchen, amongst other places. If the client sees their medications, they are more likely to remember to take them.
- Turn off "autopilot": Taking medications may become too monotonous when worked into a routine so clients may forget to pay attention to when they are taking their medications. Therefore, encouraging clients to say they are taking their medications out loud will help them focus more on what they are doing so they can remember taking their medications.
- Alarm clocks: Clients may find it helpful to set an alarm clock placed next to their medications to go off at the time they take their medications. This will alert them to go to their medications to turn off the alarm and subsequently take their medications.

- Calendar: Clients may find it helpful to mark off on a calendar when they take their medications so they can check back throughout the day and ensure they already took them.
- Reminders: If clients choose to place their medication next to something else they do each day, they will be able to associate the two activities and one will act as a reminder for the other. For example, if clients set their medications by their toothbrush, they will remember to take their medications when they brush their teeth.
- Daily Routine: Regardless of the strategy used, clients should make sure to make taking their medications part of their daily routine in order to enhance medication adherence.
- Occupational therapists can encourage clients to use one, or a combination of more than one, of these strategies.

Medication Management References

Justice, J. (2013). 10 ways to remember to take your medications. HealthWorksCollective. Retrieved from: http://www.healthworkscollective.com /101356/10-ways-remember-take-your-medication

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012d). Managing your medicines. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 217-229). Boulder, CO: Bull Publishing Company.

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Marengoni, A., Monaco, A., Costa, E., Cherubini, A., Prados-Torres, A., Muth, C.,…Onder, G. (2016). Strategies to improve medication adherence in older persons: Consensus statement from the senior Italia Federanziani advisory board. *Drugs & Aging*, *33*(9), 629-637. doi:10.1007/s40266-016-0387-9

Exercise

Exercise
Occupational Therapist Guide

Regular physical activity is important for all people to promote health and well-being (Lorig, Holman, Sobel, Laurent, Gonzalez, & Minor, 2012b). However, people experiencing chronic conditions may refrain from engaging in physical activities because they do not know an appropriate exercise protocol for their condition and they fear engaging in physical activity improperly may worsen their condition (Lorig et al., 2012b). Exercise can be used as an important factor for managing symptoms of many chronic conditions including: arthritis, asthma and lung disease, cancer, chronic pain, congestive heart failure, depression, diabetes, heart disease, high blood pressure, HIV disease (AIDS), multiple sclerosis, Parkinson's disease, peptic ulcer disease, and stroke (Lorig et al., 2012e). Clients may find more motivation to engage in exercise if they first develop a goal that exercise would help them attain (Lorig et al., 2012b). The four types of fitness exercise routines clients should participate in include flexibility, strength, endurance, and balance (Lorig et al., 2012b). An occupational therapist may have to assist someone who is not active to develop and establish an exercise routine.

Intervention Strategies

Exercise Goal Sheet

Exercise is important for older adults with chronic conditions to improve health and limit the progression of debilitating diseases. Regular exercise has many benefits such as preventing and managing diabetes and heart disease and helping maintain a healthy weight resulting in enhanced joint protection (Lorig et al., 2012b). The first step to motivate clients to engage in exercise is helping them determine what the meaningful

benefits of exercise are in their life. The occupational therapist should discuss and complete the Exercise Goal Sheet with the client. The occupational therapist should facilitate the client to determine what meaningful activities he or she has difficulty engaging in due to physical limitations of his or her chronic condition(s). Establishing the goals should be a client-directed activity; however, the occupational therapist may need to help guide the client to determine what they would like to engage in. For example, perhaps the client doesn't go grocery shopping anymore because he fears he may fall due to his poor balance. Once the client has established what it is he wants to do, he will be able to make a goal to do it in the future and an exercise plan can be developed with the goal in mind. When the client desires to accomplish something meaningful and is able to understand how exercise can help, he will be more motivated to engage in the exercise routine.

Exercises

As mentioned, exercise is an important aspect to be incorporated into a healthy lifestyle routine. Lorig et al. (2012b) identified flexibility, strength, balance, and endurance as essential areas of exercise to address with clients with chronic conditions. The exercises included were adapted from Lorig, Holman, Sobel, Laurent, Gonzalez, & Minor (2012c) and focus on these areas. They are examples of what to include in a client's exercise routine. Each client has individual needs so the exercise program should be adapted accordingly. For example, an exercise may need to be modified in some way (number of repetitions, amount of weight added, the way the exercise is performed, etc.) to meet the needs of the client. To ensure the exercise program is client-centered, the occupational therapist should collaborate with the client to determine which exercises

will work best for them. Occupational therapists should explain the exercises to the client and have the client demonstrate them to ensure exercises are performed properly.

Exercise Log

The exercise log is designed to help clients keep track of when they exercise and what they do during their workouts. Having a routine is essential to developing a consistent pattern of engaging in exercise. The occupational therapist should discuss with the client what time of day works best for them to exercise and what exercises they enjoy the most or find the most useful. The log is designed so clients can try different exercises and keep track of how they felt while doing it (i.e. “it was fun,” “it was difficult to do in the evening when I was tired,” etc.). The routine should be developed around the client’s goal and preferences to ensure it is a plan the client will be motivated to adhere to.

Community Events Calendar

A community events calendar will provide different exercise opportunities for clients to vary their exercise routines. The occupational therapist will connect clients with community events that will promote their health and well-being. The occupational therapist can determine what exercise events are offered throughout the community and provide the client with suggestions. It is recommended that occupational therapists check local community websites, community newspapers, church exercise programs, park district events, or classes offered by local fitness clubs to find opportunities for events that promote physical engagement. The occupational therapist can provide the client with the date, time, location, and cost of the various community events. The events may be presented to the client in a calendar view or a list view. The client is encouraged to choose which event(s) they would like to participate in to ensure the events are

meaningful. The occupational therapist can collaboratively create a new calendar with the client's selections to help the client understand when and where to go to attend the events.

Exercise References

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012b). Exercise and physical activity for every body. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 91-102). Boulder, CO: Bull Publishing Company.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012c). Exercising for flexibility, strength, and balance: Making life easier. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 103-124). Boulder, CO: Bull Publishing Company.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012e). Overview of self-management. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 1-14). Boulder, CO: Bull Publishing Company.

Additional Resources

Additional Resources for the Occupational Therapist Relaxation and Managing Emotions

Individuals diagnosed with chronic conditions often experience chronic levels of stress associated with their health status. High levels of stress can affect the client's emotions and subsequently impact many aspects of the client's life. Therefore, it is important to address relaxation and emotional regulation with individuals experiencing nearly all types of chronic conditions. (Lorig et al., 2012e). Depending on the client's unique needs and preferences, there are many relaxation strategies that may prove effective.

Relaxation Resources

Davis, M., Eshelman, E. R., & McKay, M. (2008). The relaxation and stress reduction *workbook (6th ed.).* Oakland, CA: New Harbinger Publications, Inc.

Intervention Strategy

When it gets Hard

Most individuals go through difficult times, struggles, and feel as though they want to give up. Chronic conditions are long lasting so clients cannot just "wait them out," and this can become difficult. Clients with chronic conditions must learn how to make adaptations in various aspects of life so they can still live life to its fullest. However, sometimes the frustrations and stress make it difficult. Information was adapted from Davis and colleagues (2008) to develop the included worksheet in order to address this concern. The worksheet is designed for the occupational therapist to go over with the client when the client is feeling "stuck." The worksheet walks the client through

a process of choosing to take responsibility for his or her health. It includes the following steps:

1. Consider what your goal was at the beginning of therapy.

   This step will help remind clients of what they wanted to achieve through the therapy process.

2. Determine how important that goal is.

   This allows clients to decide if the goal is still important to them or not.

3. Decide if working toward the goal is more important than giving up.

   This step encourages clients to consider whether or not they would like to keep working toward the goal. If the client does not wish to keep working toward the same goal, allow them to make that decision. Encourage the client to decide a different area they would like to/need to work on and develop a new goal.

4. Take responsibility for your decisions.

   If the client decides they would like to continue to make progress toward the goal, help the client realize they must take responsibility for their decision to do so and encourage them to follow through.

5. Confront your excuses.

   Encourage clients to address the excuses they make.

6. Rely on strategies that worked in the past.

Encourage the client to utilize strategies that have successfully worked in the past.

7. Ask your occupational therapist for new ideas.

   Work together with the client to think of new strategies that may work better.

8. Don’t give up.

   Encourage the client to keep working hard.

Additional Resources References

Davis, M., Robbins Eshelman, E., & McKay, M. (2008). *The relaxation & stress reduction workbook (6th Ed.).* Oakland, CA: New Harbinger Publications, Inc.

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012e). Overview of self-management. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 1-14). Boulder, CO: Bull Publishing Company.

Section III

Occupational Therapy Interventions for the Client

Introduction

This section includes interventions developed for older adults experiencing chronic conditions. The interventions address the areas of pain management, fatigue management, breathing techniques, exercise, and medication management. Considering the long-lasting nature of chronic conditions, these interventions were designed to enhance the client's ability to self-manage his or her health and participation in daily activities. Clients can collaborate with an occupational therapist to determine which intervention approaches will work best to meet individualized needs. To ensure interventions appropriately meet the specific needs of a client the interventions may be modified or adapted as determined by the occupational therapist.

Client Intervention Overview

Pain Management

Pain Management
Client Handout

Pain is a common symptom that affects each person differently. Each person's body experiences the sensation of pain in its own way. It is important for you to become aware of how your body experiences pain in order to find a treatment that best manages your pain. Successful pain management can improve your ability to participate in the activities that you enjoy doing.

Types of Pain

Acute pain: pain that occurs quickly and lasts for seconds to days
Chronic pain: pain that occurs over time and lasts for a long time
Referred pain: pain that occurs in an area that is different from where the injury is located

Common Causes of Pain or Discomfort

- The injury/illness/disease itself
- Tense/tight muscles
- Lack of use of muscles
- Lack of sleep or poor-quality sleep
- Stress, anxiety, and emotions such as depression, anger, fear, and frustration
- Medications

Treatment Strategies for Pain

❑ **Pain Survey:** A pain survey is a survey written by you that helps you understand when, where, why, and how you are experiencing pain so that you can learn how to best address your pain or avoid it altogether.

- ❑ **Exercise:** Exercise can help your body work the way it is supposed to and decrease your pain.
- ❑ **Relaxation, Imagery, Visualization:** Relaxation exercises can help you decrease your pain by relaxing your body and clearing your mind.
- ❑ **Ice, Heat, Massage:** Icing, heating, and massaging areas on your body that are painful can help decrease your pain.
- ❑ **Medication:** Medication that is prescribed by your doctor can help to decrease your pain.

Pain Survey

Please fill out this worksheet to think about how you are experiencing pain.

Date:

_____

Time:

_____

Describe what you were doing when you felt pain:

_____

_____

Rate your pain with a number (0 - no pain to 10 - worst pain):

_____

Describe what your pain felt like (ex: dull, aching, sharp, throbbing) and where you felt pain:

_____

_____

Describe how you felt when you had pain (ex: angry, sad, nervous):

_____

_____

Describe what you did to decrease your pain. Did it work?:

_____

_____

How did your pain impact how you did other activities throughout the day?

_____

_____

_____

Describe other activities that you do that do not cause pain:

_____

_____

_____

What can you do next time you have pain?

_____

_____

_____

This activity was adapted from Lorig et al. (2012f) and is an authentic activity developed by the authors Kate Gearman, OTS and Tessa Richards, OTS.

Fatigue Management

Fatigue Management
Client Handout

Fatigue is a symptom that many people with chronic diseases experience. The way that you experience fatigue may be different from the way that another person experiences fatigue. It is important to become aware of how your body experiences fatigue in order to understand what treatments help to manage your symptoms. When you are able to manage your fatigue, you will be better able to do the activities that you enjoy doing.

Common Causes of Fatigue

- The disease or medical condition itself
- Lack of activity
- Poor nutrition
- Not enough rest or sleep
- Emotions
- Medications

Treatment Strategies for Fatigue

❑ **Energy Conservation Strategies:** Energy conservation strategies can help you save energy so that you can do activities that you find important.

❑ **Fatigue Survey:** A fatigue survey is a survey written by you that helps you understand when, where, why, and how you are experiencing fatigue so that you can learn how to best address your fatigue or avoid it altogether.

- ❑ **Exercise:** Exercise can help your body work the way it is supposed to and decrease your fatigue.
- ❑ **Stress Reduction:** Stress reduction exercises can help you decrease your fatigue by relaxing your body and mind.

Energy Conservation

Conserve Your Energy with Easy Tips

Kate Gearman, OTS & Leah Sherman, OTS

General Tips

- Sit instead of stand
- Pace Yourself
- Set priorities and eliminate unnecessary tasks
- Balance activity with rest
- Take rest breaks often
- Avoid lifting and carrying objects
- Ask for help with difficult tasks
- Do heavy tasks when you have the most energy

Bathing & Showering

- Sit to undress, shower, dry, and dress
- Use long handled sponge
- Use hand-held shower head
- Use lukewarm water
- Install grab bars and nonslip strips
- Organize shampoo, conditioner, and soap in easy to reach location
- Take rest breaks

Dressing

- Organize clothing in easy to reach location
- Gather all clothes before dressing
- Sit to dress

- Wear loose-fitting and lightweight clothing
- Complete lower-body dressing first
- Prevent bending by crossing on leg over the other
- Use adaptive equipment
- Wear clothing that opens in the front

Grooming & Hygiene

- Sit when able to
- Keep all supplies (toothbrush, make-up, razor) in one area
- Wash hair while in shower
- Support elbows on counter or tabletop when possible
- Never hold breath when having a bowel movement

Bed Making

- Store linens near bedroom
- Use lightweight bedspread and fitted sheets
- Change sheets less often
- Share the task with another person
- Pace yourself
- Use clock method- Start at one end of bed and slowly make way to other side

Kitchen

- Use a cart with wheels to move items around
- Use countertop for sliding heavy objects instead of carrying them
- Keep commonly used items within easy reach
- Utilize paper plates/plastic utensils
- Use electric appliances

- Use two hands rather than one to carry items

Cooking

- Cook part of the meal ahead of time
- Use recipes that are easy to make with short preparation time
- Use packaged fresh or frozen vegetables and other products
- Gather all needed items before making a meal
- Serve food directly from the baking dish or pan it is made it
- Try meals that are ready-made

After Meal Clean-up

- Rest after meals before cleaning
- Let dishes soak to reduce the need for scrubbing
- Ask others to help with the clean-up

House Cleaning

- Break up chores over a week
- Sit to dust
- Use a power-broom or light-weight vacuum
- Keep cleaning supplies in the same room you use them in
- Give cleaning spray time to do its work so you won't have to do as much

Laundry

- Make more frequent trips with lighter baskets of laundry
- Get help to fold larger, heavier items
- Sit to iron, sort clothes, & fold
- Use a scoop for putting detergent in rather than lifting whole box
- Spread out tasks over a couple of days

- Use long-handled reacher for getting clothes from back of machine

Additional Resource:

Lorig, K., Holman H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2012). Understanding and managing common symptoms. In K. Lorig, H. Holman, D. Sobel, D. Laurent, V. Gonzalez, & M. Minor (Eds.), *Living a healthy life with chronic conditions* (pp. 35-67). Boulder, CO: Bull Publishing Company.

Permission to use this handout was obtained from the authors Kate Gearman and Leah Sherman and is included in Appendix A.

Information adapted from: Berry, N. (2011). Appendix D: Energy conservation and work simplification strategies. In H. Smith-Gabai (Ed.), *Occupational Therapy in Acute Care.* Bethesda, MD: The American Occupational Therapy Association, Inc.

Fatigue Survey

Please fill out this worksheet to think about how you are experiencing fatigue.

Date:

_____

Time:

_____

Describe what you were doing when you felt fatigued:

_____

_____

Describe what you felt like when you had fatigue (ex: sleepy, anxious):

_____

_____

Describe what you did to decrease your fatigue. Did it work?:

_____

_____

How did your fatigue impact how you did other activities throughout the day?

_____

_____

_____

Describe other activities that you were doing that did not cause fatigue:

_____

_____

_____

What can you do next time you feel fatigued?

_____

_____

_____

This is an authentic activity developed by the authors Kate Gearman, OTS and Tessa Richards, OTS.

Stress Reduction Worksheet

Fill out this worksheet with the occupational therapist.

List things in your life that are stressful for you:

_____

_____

_____

_____

Write each of the things that you identified as stressful for you in one of the boxes below (ex: using public transportation is important and changeable):

	Important	**Unimportant**
Changeable	*Ex: Using public transportation*	
Unchangeable		

(Lorig et al., 2012f)

Use the chart above to think about how the things that are stressful for you add to your fatigue. How do the things that are stressful for you change how you do your everyday activities?

_____

_____

_____

_____

What can you do to stop yourself from experiencing stress? How can you use these strategies during your daily routine? Let's plan together.

_____

_____

_____

_____

This activity was adapted from Lorig et al. (2012f) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Breathing Techniques

Breathing Techniques
Client Handout

Many older adults with chronic conditions experience breathing difficulties. It is important for you to know how your breathing impacts your overall health and daily life. By learning techniques that can help to make breathing easier, you can more easily do the everyday activities that you enjoy.

Common Causes of Shortness of Breath

- The disease/illness itself
- Excess weight
- Lack of use of muscles

Treatment Strategies for Breathing

❑ **Breathing Exercises/Positioning:** Breathing exercises and moving your body in different positions can help your body get more oxygen and make breathing easier.

❑ **Exercise:** Exercise can help your lung muscles stay strong and working properly.

❑ **Medication:** Medication that is prescribed by your doctor can help to make breathing easier.

Medication Management

Medication Management
Client Handout

People who have chronic illness often take many medications. It can be difficult for many people with chronic conditions to take medications the correct way. It is easy to forget to take medications or accidentally take too much. To get the best results from your medications, you must take the right amount of medications at the right time each day. You may not always feel like your medications are working, but taking your medication does have health benefits.

Benefits of Medications:

- Relieve your symptoms
- Prevent additional problems
- Slow the course of your illness

Treatment Strategies for taking Medications:

❑ **Medication Checklist:** Completing this worksheet with your occupational therapist will help you determine where you may need help with your medications. You can talk about your concerns and what works well for you.

❑ **Remember to take your Medications:** This handout has many ideas for how you can make taking your medications part of your daily routine.

Medication Checklist

- ❑ I know what medications I am taking.
- ❑ I know when to take each medication.
- ❑ I am confused by what my medication is for.
- ❑ I take my medications at the same time(s) each day.
- ❑ I believe my medications help improve my health.
- ❑ I get bad side effects from my medications.
- ❑ I have had a bad experience with my medications.
- ❑ My medications make me tired.
- ❑ My medications make me confused.
- ❑ I stopped taking my medications.
- ❑ I use a pillbox to organize my medications.
- ❑ I know how to find the phone number to my pharmacy.

This information was adapted from Lorig, Holman, Sobel, Laurent, Gonzalez, and Minor (2012d) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Remember to take your Medications

Pillbox:

Use a pillbox to organize your medications for the week.

Daily task:

Take your medications each day while you do a certain daily task.

Technology:

Receive a daily text message or email to remind you when it is time to take your medications.

Get help:

Ask someone to help you take your medications.

Keep medications visible:

Keep your medications where you will be sure to see them.

Turn off autopilot:

Say out loud, "I am taking my medications."

Alarm clocks:

Set an alarm clock by your medications to go off when it is time to take them.

Calendar:

Mark on a calendar each day after you take your medications.

Reminders:

Set your medications by something else you will use each day so you remember to take them.

Daily routine:

Take your medications at the same time every day.

Which strategy(ies) will you try and use in the next week? Please circle those you will use.

This information was adapted from Justice (2013) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Exercise

Exercise
Client Handout

Regular exercise is important for everyone, including you! Some people with chronic conditions are afraid to exercise. This is because they think exercise might make symptoms worse. But exercise is good for you and will help decrease some of your symptoms! It is important to learn what exercises work best for you and make them part of your daily routine.

Benefits of Exercise:

- Improve your blood pressure
- Help you maintain a good weight
- Keep your bones strong
- Protect your joints
- Improve your energy
- Decrease feelings of stress and depression

Treatment strategies for Exercise:

❑ **Exercise Goal Sheet:** Setting an exercise goal can help motivate you to follow through with an exercise plan.

❑ **Exercises:** Choosing the right exercises for you will help decrease symptoms and help you feel better about yourself. Your occupational therapist will help you decide which exercises are best for you.

❑ **Exercise Log:** Keeping track of what exercises you try and how you like them will help you know what you may enjoy in the future. This will also help you set an exercise routine so exercising becomes a normal part of your life.

- ❑ **Community Events Calendar:** Get involved in your community while exercising! You can engage in community events that will help you stay active and have fun with others.

Exercise Goal Sheet

What is a physical activity you want to do but choose to not do now because of a physical reason?

_____

_____

Consider why you don't do it or why you don't enjoy doing it now.

_____

_____

What makes it hard to do the thing you want to do?

_____

_____

Make an exercise goal.

_____

_____

This information was adapted from Lorig et al. (2012b) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Exercises

Picture 1a

Picture 1b

1. **Head and Neck Posture**

   Keeping your joints lined up correctly is important for your physical health. This exercise is the start of good posture. It helps relieve neck, jaw, and upper back pain or tension. You may naturally hold the position shown in Picture 1a. It's better to keep your neck in a *Neutral Position* like that pictured in 1b. While sitting or standing, move your head back so your neck is lined up straight. You can look in a mirror to make sure your ears are over your shoulders and not in front of them. Think about this position throughout the rest of the exercises and try and maintain good posture!


Picture 2a


Picture 2b


Picture 2c


Picture 2d

2. Neck Stretches

Start in the *Neutral Position* (see Picture 1b) and relax your shoulders. Slowly turn and look over your right shoulder as far as you can (see Picture 2a). Then turn slowly to look over your left shoulder as far as you can (see Picture 2b). Slowly turn and look straight ahead so you are back in the *Neutral Position* (see Picture 1b). Drop your right ear down to your right shoulder (see Picture 2c). Make sure you don't raise your shoulder to your ear. Lift your head back up and then drop your left ear down to your left shoulder (see Picture 2d). Return to the *Neutral Position* (see Picture 1b).

Picture 3a

Picture 3b

Picture 3c

Picture 3d

Picture 3e

3. Finger Touch

Lightly touch each fingertip to your thumb, beginning with your index finger and ending with your little finger. Between each finger, straighten your hands and spread your fingers apart as shown in Picture 3a.

Picture 4a

Picture 4b

Picture 4c

4. Shoulder Exercise

Sit or stand with your feet a comfortable distance apart. Begin in the *Neutral Position* (see Picture 1b) and relax your shoulders. Slowly shrug your shoulders up to your ears as in Picture 4b. Hold the position, and then relax. Roll your shoulders forward as in Picture 4c.

Picture 5a

Picture 5b

5. **Arm Raise**

   Begin with your arms held down and in front of you (Picture 5a). Point your thumbs up toward the ceiling and raise your hands in front of you making a “Y” position with your body (Picture 5b).

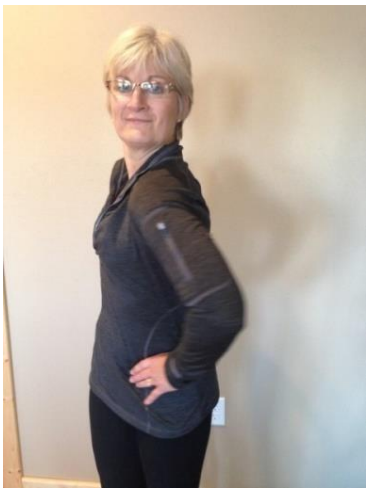
Picture 6

6. **Behind the Back Finger Reach**

   Reach one arm straight up in the air. Bend your elbow and touch your back. Hold your other arm down at your side. Bend that elbow and touch your back. Reach your two hands toward each other and try and make your fingers touch. Do this for both sides and it will help your shoulder flexibility and strength!

Picture 7a

Picture 7b



Picture 7c

7. **Trunk Twist:**

   Stand up straight with your hands placed on your hips (Picture 7a). Stand with your feed a comfortable distance apart. Twist your trunk to the left side as far as you can go (Picture 7b). Return to center (Picture 7a). Twist your trunk to the right side as far as you can go (Picture 7c). Make sure you are twisting at your trunk instead of just turning your head!

Picture 8a

Picture 8b

8. Shoulder Squeeze

Stand up straight with your feet placed a comfortable distance apart. Raise your arms out to your sides with bent elbows (Picture 8a). Move your arms together in front of you (Picture 8b). Move your arms back apart (Picture 8a) and move your elbows as far back as they can go to pinch your shoulder blades together. This will help strengthen your back and stretch your chest. It is also great for helping you breathe more easily!

Picture 9

9. Leg Kick Back

Stand comfortably facing a table or counter. Rest your hands on the table or counter for support to help you balance. Balance on one foot and slowly raise the other leg back as far as possible. Repeat on the opposite side.

Picture 10

10. Leg Side Lift:

Stand comfortably with a table or counter on your side. Place your hand on the table or counter to help with your balance. Balance on the foot closest to the table or counter and slowly raise the other foot as far out to the side as possible. Lower your leg, turn so the table or counter is on the other side and repeat on the second side.

Picture 11

11.Leg Extension

Sit up straight in a chair and hold onto the seat for balance. Begin with your knees bent and both feet flat on the floor. Lift one leg up while straightening it. Return it to the floor. Repeat with the second leg.

Picture 12

12.Knee Lift

Stand facing a table or counter with your feet a comfortable distance apart. Rest your hands on the table or counter for support. Slowly bend one leg at the knee and raise it so your thigh is parallel to the floor. Put your foot back on the floor and repeat on the other side.

Picture 13a

Picture 13b

13. Toe Flex/Extend

Stand facing a table or counter with your feet a comfortable distance apart. Use the table or counter for support to help you balance. Slowly raise your heels off the floor so you are standing on your tippy toes (Picture 13a). Lower your heels so your feet are flat on the floor. Then raise your toes off the floor so you are standing on only your heels (Picture 13b). Lower your toes so your feet are flat on the floor.

Permission to use these pictures was obtained from the subject and is included in Appendix B.

These exercises were adapted from Lorig, Holman, Sobel, Laurent, Gonzalez, and Minor (2012c) and are an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

Exercise Log

Sunday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Monday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Tuesday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Wednesday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Thursday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Friday:

Exercises I did:_____

What I liked:_____

How I felt:_____

Saturday:

Exercises I did:_____

What I liked:_____

How I felt:_____

This is an authentic activity developed by the authors Kate Gearman, OTS and Tessa Richards, OTS.

Community Events Calendar (Example)

October 2016						
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
						1
2	**3**	**4** Free Open Swim 9-11am	**5** Walking Club 8-9am	**6** Free Open Swim 9-11am	**7**	**8** Diabetes Walk 8-11am
9	**10**	**11** Free Open Swim 9-11am	**12** Walking Club 8-9am	**13** Free Open Swim 9-11am	**14**	**15**
16	**17**	**18** Free Open Swim 9-11am	**19** Walking Club 8-9am	**20** Free Open Swim 9-11am	**21**	**22**
23	**24**	**25** Free Open Swim 9-11am	**26** Walking Club 8-9am	**27** Free Open Swim 9-11am	**28**	**29**
30	**31**					

This is an authentic activity developed by the authors Kate Gearman, OTS and Tessa Richards, OTS.

Community Events List (Example)

Free open swim:

- Location: Town Swimming Pool
- Cost: Free
- Date/Time:
  - Tuesday, October 4: 9:00-11:00am
  - Thursday, October 6: 9:00-11:00am
  - Tuesday, October 11: 9:00-11:00am
  - Thursday, October 13: 9:00-11:00am
  - Tuesday, October 18: 9:00-11:00am
  - Thursday, October 20: 9:00-11:00am
  - Tuesday, October 25: 9:00-11:00am
  - Thursday, October 27: 9:00-11:00am

Walking Club:

- Location: Town Walking Track
- Cost: Free
- Date/Time:
  - Wednesday, October 5: 8:00-9:00am
  - Wednesday, October 12: 8:00-9:00am
  - Wednesday, October 19: 8:00-9:00am
  - Wednesday, October 26: 8:00-9:00am

Diabetes Walk:

- Location: Insulin Rd.
- Cost: Free will donations
- Date/Time:
  - Saturday, October 8: 8:00-11:00am

This is an authentic activity developed by the authors Kate Gearman, OTS and Tessa Richards, OTS.

Additional Resources

When it gets Hard

- Consider what your goal was at the beginning of therapy.
- Determine how important that goal is.
- Decide if continuing to work toward the goal is more important than giving up.
- Take responsibility for your decisions.
- Confront your excuses.
- Rely on strategies that worked in the past.
- Ask your occupational therapist for new ideas.
- Don't give up!

This worksheet was adapted from Davis, Robins Eshelman, and McKay (2008) and is an authentic work of the authors Kate Gearman, OTS and Tessa Richards, OTS.

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Appendices

Appendix A

Re: Chronic Disease Education Material
Sherman, Leah [leah.sherman@und.edu]

Sent: Friday, November 18, 2016 10:33 AM
To: Kate Gearman
Cc: Richards, Tessa [tessa.richards@und.edu]

Hello Kate and Tessa,

That sounds like a wonderful project that will be very useful in the future for many individuals. I formally give you my permission to use the educational handout on energy conservation for the purposes of your scholarly project product.

Best Regards,

Leah Sherman, MOTS

From: Kate Gearman <kgearman@cord.edu>
Sent: Friday, November 18, 2016 9:51:25 AM
To: Sherman, Leah
Cc: Richards, Tessa
Subject: Chronic Disease Education Material

Good Morning Leah,
We are introducing the role of occupational therapy in primary care for older adults with chronic conditions for our scholarly project. We are proposing various interventions that focus on areas of need for this population. One of these intervention areas is energy conservation. We would like to ask permission to use the educational handout on energy conservation that you helped create within our scholarly project. The inclusion of this handout will help to enhance the product we are creating by providing educational material that is ready to be used by the older adult client with chronic conditions.

Thank you!
Kate Gearman & Tessa Richards

One of the authors of this product, Kate Gearman, OTS, also granted permission to use the educational handout on energy conservation that she helped create previously.

Appendix B

PHOTO/USE

PERMISSION GRANTED

University of North Dakota
School of Medicine & Health Sciences

I hereby grant and authorize the University of North Dakota to use and release the

1) negatives, prints, film, digital files, audio recording and/or video tapes of me and
2) articles written about me as a result of an interview with a UND representative.

I understand these images and files will be used only for UND educational, promotional and public information purposes.

Susan Richards Susan Richards
Subject's Name & Signature

Parent/Guardian's Name & Signature (If needed)

Tessa Richards Tessa Richards
Witness's Name & Signature

NOV. 13, 2016
Date

The University of North Dakota
School of Medicine & Health Sciences
UND THE UNIVERSITY OF NORTH DAKOTA

4/30/08

Chapter V

SUMMARY

The high incidence of chronic disease among older adults in the United States (U.S.), along with the increased number of individuals reaching older adulthood, calls for a need to provide specialized services for this population. Primary care services provide clients with the opportunity to receive preventive and health-promoting care. Occupational therapists are equipped to provide interventions to older adults that focus on chronic disease management within primary care settings. In this type of setting, occupational therapists are able to address clients' healthcare needs before the development of chronic disease results in problematic functional decline.

The product titled, *Advocacy and Guide for Occupational Therapy in Primary Care: Caring for Older Adults with Chronic Conditions,* was developed with the intent of advocating for the inclusion of occupational therapy in primary care settings in order to provide interventions for older adults that address chronic disease management. A presentation and complementary fact sheet were created to serve as resources to advocate for occupational therapy services within primary care settings. The informational presentation and handout were developed for a target audience of geriatricians and other primary care physicians who work directly with older adults experiencing chronic conditions. The following occupational therapy intervention categories were included in the product for older adult clients with a variety of chronic diseases: pain management, fatigue management, breathing techniques, exercise, and medication management.

Interventions were developed to incorporate self-management strategies in order to promote self-efficacy and control over one's health.

A clinical strength of the developed product is that the Occupational Adaptation (OA) model was used throughout the development of the product; this provides occupational therapy practitioners with a framework to help implement the included interventions. Through use of this model, occupational therapists will be able to facilitate a client's adaptive process. Subsequently, the goal of the included interventions is to enable clients to independently manage their chronic conditions and, thus, promote their health and decrease the amount of medical services needed to serve this population. An additional strength of the product is the integration of evidence-based practice. The development of the product, as well as the specific interventions included, was based on a review of the current evidence. Therefore, the information and materials included in the product have been supported by research.

In the development of the product, limitations were identified that have the potential to impact its implementation. One such factor is reimbursement. A lack of insurance coverage for preventive occupational therapy services may impact the availability of the proposed occupational therapy services in primary care. Occupational therapists are advised to follow their reimbursement guidelines closely in accordance with the standards set forth by their respective state. Additionally, the position of an occupational therapist working in primary care does not currently exist in most primary care clinics. Therefore, the position needs to be created prior to implementation of the proposed interventions. This emphasizes the need for advocacy, which could present as an additional limitation to the product. If occupational therapists do not possess the

desire, skills, and commitment to advocate for the inclusion of occupational therapy in primary care, then the product will not have the opportunity to be utilized. Finally, the interventions included in the product have not been tested in a clinical setting which contributes to the limitations of the product. In order to address the above mentioned limitations, occupational therapists must become active advocates within their communities in order to promote the expansion of reimbursement policies, the growth of primary care teams, the execution of novel research endeavors, and the progression of the profession as a whole.

As an outcome evaluation measure, the Relative Mastery Measurement Scale (George, Schkade, & Ishee, 2004) was included in the product. This outcome measure was included to allow the client, as well as the occupational therapist, to determine the clinical usefulness of the interventions and treatment approaches introduced in the product. The scale allows clients to evaluate how they utilize intervention strategies to address their health concerns with regards to efficiency, effectiveness, and satisfaction to self and to others (George et al., 2004). For further evaluation, it is recommended that the included interventions be utilized and assessed in a pilot study. The anticipated results will, in turn, promote the use of such approaches in a primary care setting. Based upon the results of the pilot study, it is recommended that further evaluation and research be conducted to demonstrate the effectiveness of the included interventions. In the future, additional intervention protocols may be developed that address the unique needs of individuals with specific chronic conditions. Additionally, if clinical application of the included interventions reveals there are additional areas in which occupational therapy can address the needs of this population, it is recommended additional intervention

approaches be developed. In conclusion, the purpose of the product was to advocate for and develop the role of occupational therapy with older adult clients diagnosed with chronic conditions within a primary care setting.

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