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Ashlee M. Lee
University of North Dakota

Julie A. Stolt
University of North Dakota

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A LIFESTYLE MODIFICATION PROGRAM FOR COMMUNITY DWELLING ADULTS WITH OBESITY

by

Ashlee M. Lee and Julie A. Stolt

Advisor: Dr. Janet S. Jedlicka PhD, OTR/L

A Scholarly Project

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master's of Occupational Therapy

Grand Forks, North Dakota
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This Scholarly Project Paper, submitted by Julie A. Stolt and Ashlee M. Lee in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Faculty Advisor

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Date

PERMISSION

Title	A Lifestyle Modification Program for Community Dwelling Adults with Obesity
Department	Occupational Therapy
Degree	Master's of Occupational Therapy

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- Ashlee M. Lee

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- Julie A. Stolt

ABSTRACT

Obesity is significantly rising among adults in the United States. The Center for Disease Control (CDC, 2009e), estimates that obesity increased by 15% to 32.9% within a 20 year span (1985 – 2008). Clinical obesity is defined as having a BMI 30 and over; it is correlated with secondary complications that include hypertension, type II diabetes, osteoarthritis, cardiovascular diseases, cancers, cerebral vascular accidents, sleep apnea, and respiratory illnesses (CDC, 2009d; World Health Organization [WHO], 2009). Beyond the many health consequences caused by obesity, there are also psychosocial, genetic, and discriminatory aspects of this disease that negatively impact the quality of life and participation in occupations (Clark, Reingold, & Salles-Jordan, 2006).

Occupational therapists can provide education and intervention focusing on lifestyle modification to increase participation in occupations, and improve quality of life (Blanchard, 2006; Clark, et al. 2006). The CDC (2009g) describes that 10-minute bouts of moderate to vigorous intensity in the form of meaningful activities such as lawn mowing, dancing, or biking to the store is adequate for raising heart rates and starting the path to physical fitness. This approach fits well with the role of occupational therapy.

A comprehensive literature review was conducted on obesity and the impact it has on activities of daily living. Key areas explored include medications, genetics, psychological impacts and discrimination, impact on activities of daily living, sedentary lifestyles, impact of socio-economic status on health, dietary modifications, as well as effective holistic intervention strategies.

The literature indicated a need for a lifestyle modification program for community dwelling adults who are overweight or obese. The *Step It Up to A Better You* is a lifestyle modification program consisting of one-hour educational sessions for 12-weeks. The overall goal is to gain a healthy lifestyle with enhanced quality of life and ability to participate in one's meaningful daily activities. The sessions include educational resources on motivation, nutrition, physical activity, exploring community resources, psychosocial well-being, and a lifestyle maintenance plan.

CHAPTER I

INTRODUCTION

Obesity is becoming an epidemic in the United States (U.S) and the world. There are more than 1 billion overweight or obese adults (World Health Organization, [WHO], 2009). The Center for Disease Control (CDC, 2009e), estimates that obesity increased by 15 percent to 32.9 percent within a 20-year span (1985 - 2008). Approximately 66 percent of the total U.S. population is considered overweight or obese (National Center for Health Statistics, 2009). According to the WHO, "the definition for overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health" (2009, ¶1). Clinical obesity is defined as having a BMI 30 and over and is correlated with secondary complications that include hypertension, type II diabetes, osteoarthritis, cardiovascular diseases, cancers, cerebral vascular accidents, sleep apnea, and respiratory illnesses (CDC, 2009d; WHO, 2009). The cost of obesity alone is high but obesity related diseases account for nearly 100 billion dollars per year in the late 1990's (National Institutes of Health, [NIH], 1998).

Individuals who have a lower socio-economic status (SES) are more likely to be overweight or obese (NCHS, 2009). This can be due to a variety of factors including lack of access to health care, fewer opportunities for adequate health screening, inability to afford a healthy diet, and decreased opportunities to be physically active (Lurie & Dubowtiz, 2007). *Step It Up to A Better You,* a lifestyle modification program is designed to meet the needs of this population. The program is composed of 12-one hour

educational sessions for community-dwelling adults. The program contains sessions on nutrition, physical activity, and development of healthy life skills within one's roles, habits, and routines.

A comprehensive review of literature was completed on the topic of adult obesity. The research demonstrated that topics such as pharmacological and surgical interventions, physical activity, specific diet approaches, and psychosocial implications are well researched and illustrate effectiveness in the treatment of adult obesity. However, there is a lack of occupational therapy literature and documentation of effective interventions for community living adults with obesity. The role of occupational therapy is in align with the needs of adults who are experiencing obesity and can be involved in the assessment and treatment of this population using meaningful activities and occupations.

The Model of Human Occupation (MOHO) is an occupational behavior model (Kielhofner, 2009) used to guide the development and implementation of the product *Step It Up to A Better You*. The program includes educational sessions that focus on interventions to promote healthy habits within one's previously established roles and routines of daily life.

Chapter II provides an extensive literature review on adult obesity including the etiology, common interventions, and explanation of identified theoretical approaches that includes MOHO. Chapter III illustrates the activities and methodology used to develop the literature review and product. A summary of the product is found in Chapter IV. The complete product is located in the following appendices. The product consists of 12 group sessions with detailed information for the facilitator, as well as, additional

resources and participant handouts. Chapter V is a summary of the findings of the literature review, overview of the product, limitations, conclusions, and recommendations for further steps.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Obesity is an epidemic in the United States (U.S) and the world; with more than 1 billion overweight adults, which includes 400 million adults who are obese (World Health Organization, [WHO], 2009). The Center for Disease Control [CDC] (2009e), estimates that obesity in the U.S. increased by 15 percent to 32.9 percent within a 20-year span (1985-2008). Approximately 67 percent of the total U.S. population was overweight in 2007. This includes 32 percent classified as obese (National Center for Health Statistics [NCHS], 2009). According to the WHO, the definition for overweight and obesity is “abnormal or excessive fat accumulation that may impair health” (2006, ¶1). Body Mass Index (BMI) is a measure used to classify weight range for the adult population (CDC, 2009c; National Institutes of Health, [NIH], 1998; WHO, 2009). A BMI score of less than 18.5 is considered “underweight”, a score between 18.5 and 25 is considered “healthy weight”, a BMI higher than 25 but less than 30 is considered “overweight”, and a score 30 or more is considered “obese” (CDC, 2009c; NIH, 1998; WHO, 2009). Based on these BMI scores, currently more than half of the adult population in the U.S. is overweight or obese and rates continue to rise. Obesity is more prevalent among men than women in the U.S. (NCHS, 2009). The prevalence of obesity is higher among non-Hispanic Black (79.6 percent) and Mexican-American (73 percent) women than in non-Hispanic White (56 percent) women, and men had little difference in

prevalence according to ethnicity (NCHS, 2009). According to Bendixen et al., (2004), the prevalence of overweight females increased most during the ages of 16 – 29 and the prevalence of overweight males increased most during the ages of 16 – 49. Currently, there are no specific statistics on the prevalence of obesity and disability because obesity is not commonly measured among persons with disability due to the lack of standardized definitions and assessments (NCHS). However, there is a positive correlation between being overweight or obese and being disabled (Walter, Kunst, Mackenbach, Hofman, & Tiemeier, 2009). Another study (Ferraro, Su, Gretebeck, Black, & Badylak, 2002) found that the risk of having a disability was correlated with obesity but not always correlated with an overweight status.

Clinical obesity is defined as having a BMI of 30 and over and is correlated with secondary complications that include hypertension, type II diabetes, osteoarthritis, cardiovascular diseases, cancers, cerebral vascular accidents, sleep apnea, and respiratory illnesses (CDC, 2009d; WHO, 2009). Another identified risk of obesity is the decreased use of seatbelts due to increased waist circumference (Obesity Society, 2009). Increased mortality rates are directly associated with obesity. Research estimates that a total of 300,000 individuals die each year in the U.S. due to the secondary risks associated with obesity (U.S. Department of Health and Human Services, [DHHS], 2001). There is up to a 50 percent increased chance of mortality from all secondary complications, especially cardiovascular causes (NIH, 1998; Scaffa, Reitz, & Pizzi, 2010). Beyond the many health consequences caused by obesity, there are many psychosocial, genetic, and discriminatory aspects of this disability. Obesity therefore, negatively influences the quality of life and participation in occupations (Clark, Reingold, & Salles-Jordan, 2007;

NIH, 1998). Research demonstrates that quality of life decreases among increasing levels of obesity (Jia & Lubetkin, 2005). Occupational therapists utilize a holistic perspective employing the use of occupations and daily activities to manage obesity, while decreasing mortality and developing an improved quality of life (American Occupational Therapy Association [AOTA], 2007). Occupational therapists have the knowledge and skills to offer individuals with obesity that embrace psychosocial, physical, contextual, spiritual, and cultural aspects that influences one's life that have an effect on quality of life and participation in daily activities (AOTA, 2007).

The choices that an individual makes surrounding his/her lifestyle have a large impact on becoming overweight or obese. This literature review sets out to illustrate various factors of obesity that include the influence of genetics and lifestyle choices, psychosocial concerns, influences of specific environments and socioeconomic dynamics, and issues of high rising medical costs related to the obesity epidemic. In addition, the role of health care professionals and specifically occupational therapists in evaluation, intervention of physical, dietary, and psychosocial aspects of individuals with obesity are described. Current include pharmacological and surgical options and the effectiveness of patient education on the management of obesity are reviewed.

Genetics and Lifestyle Factors

A link can occur between obesity and genetics (Porth, 2005). The CDC (2009h) reports that certain genes are more susceptible to obesity. Other researchers have reported hereditary factors as having an impact on the development of obesity (Wigg, Dammann, & Smith, 2009). Some genes have a tendency to favor fat accumulation and lack of ability to burn fat. The CDC (2009h) reports that in 2005, eleven genes were linked to the

development of obesity. Hereditary factors may explain excess weight; however, environmental influences still have a strong link to the development of obesity (Bouchard, 2007). Environmental influences include family habits, decreased level of activity, easy access to food, consumption of energy dense food, and increased portion sizes (Porth, 2005).

A physically active lifestyle has positive health effects such as decreasing blood pressure, cholesterol levels, and less chance of secondary complications (Bergstrom, Lombardo, & Brinck, 2009; Bernstein, Costanza, & Morabia, 2004; Shaw, Gennat, O'Rourke, & Del Mar, 2006). Exercising or being more physically active can lead to more control over body weight. According to Shaw et al., exercising or physical activity will reduce weight when compared to no physical activity. Physical exercise increases cardiovascular health (Shaw et al.; Lavie, Milani, & Ventura, 2009). One study illustrated a higher gain in fat for the individual that previously transitioned from a highly active lifestyle to a more sedentary lifestyle (Westerterp & Plasqui, 2009). Another study found that individuals who are overweight or obese exercise less and are less likely to engage in high-intensity activities (Bernstein et al.). Obesity positively correlates with decreased housework and gardening, and increased television and computer usage (Banwell et al., 2009). Many individuals combine both exercise and diet to lose or maintain weight. Shaw et al. found that exercise combined with diet led to an increase in weight loss.

Dietary choice has a strong correlation to body weight and the development of obesity. Individuals who eat more calories (units of energy) and do not expend the energy from the consumed calories are more likely to be overweight or obese (CDC, 2009b; NIH, 1998; WHO, 2009; Scaffa et al., 2010). There is a greater availability of energy

dense foods today in the U.S., and these foods contain a high fat content. These types of foods encourage overeating, which, without increased physical activity, weight gain will occur (Scaffa et al.). An inability to control one's eating is strongly associated with obesity (Rohrer, Vickers-Douglas, & Stroebel, 2009; Scaffa et al.). Everyday consumption of soft drinks, fried, fast, and instant food items, three or more times per week is associated with a higher rate of obesity (Banwell et al., 2009).

In addition to foods that contain high fat and calories, portion sizes have significantly increased over the past two decades. Restaurant meals, snack foods, and beverages are larger, and thus increase the amount of calories consumed. Currently, the average consumer in the U.S. is expecting larger sizes for a lower price and the market is meeting this demand (CDC, 2006; WHO, 2009; Young & Nestle, 2002). A recent study found that adults who live with children ate significantly higher amounts of fat, increasing the likely of being overweight or obese (Laroche, Hofer, & Davis, 2007).

Environments contribute to being overweight or obese. These environments include cultural, physical, and social contexts (American Occupational Therapy Association [AOTA], 2007). Food portions have increased dramatically since the 1980's paralleling with the prevalence of obesity (Young & Nestle, 2002). Individuals tend to eat increased amounts of food, larger portion sizes, and foods that are less nutritious when dining out at restaurants or consuming foods within a social context (Ayala et al., 2008; McCrory, Fuss, Saltzman, & Roberts, 2000). This may be due to the U.S. food industry is marketing food in mass media, convenient and prepackaged foods, and large food portions at restaurants (CDC, 2006). Ayala et al., (2008) studied 708 Latino families to determine if food consumed outside of the home presented a risk for obesity. The results

indicated that “away-from-home” foods are higher in fat, consist of larger portion sizes, and are less nutritious than foods consumed at home (Ayala et al.).

The availability of certain foods and the choice of food influence an individual’s weight. People who live in an area with greater numbers of small grocery stores and fast food restaurants are more likely to be obese when compared to people who live in an area with a larger amount of supermarkets (Morland & Evenson, 2009). The total in-vehicle travel time was associated with a higher rate of obesity. People who live in low net residential density or people who have more space between their houses are also associated with a higher rate of obesity (Bodea, Garrow, Meyer, & Ross, 2009). Obesity is less likely to occur in environments that have more built supports of physical activity. These supports include safe neighborhoods, large amounts of physical space, family support, decreased traffic, access to healthy foods, and access to recreational facilities (Sallis & Glanz, 2009). Living in a more urban area has been associated with higher prevalence of obesity (Banwell et al., 2009).

Children and adults who consumed food from restaurants (46 percent of families reported eating out at restaurants one time per week) were associated with having a higher BMI measurement and greater risks towards obesity (Ayala et al., 2008). Children who consumed foods from relatives, neighbors, or friends one time per week were more likely to be overweight. However, these results were not associated with adults. The research by Ayala et al. illustrates the importance of monitoring food consumption in specific environments and contexts and that eating at home is the best approach to monitoring children’s and adults’ eating habits and caloric intake. In addition to dietary food choices, having a sedentary lifestyle, living in an inner-city with fewer opportunities

to shop at grocery stores, eating away-from-home foods and influences from hereditary factors increase the risk and development of obesity.

Learned Behavior, Motivation, and Other Factors

The impact of obesity is associated with learned behaviors, discrimination, and other social issues or implications (Porth, 2005). Psychosocial factors can be included as a factor that contributes to the development of obesity. Food may be used as a mode of comfort or reward, as coping with stress, anxiety, low self-esteem, and to avoid dealing with emotions (Heading, 2008; Porth).

Evidence demonstrates increased stress from negative stereotypes and discrimination of individuals who are overweight and obese (Puhl, Andreyeva, & Brownell, 2008). In the U.S., discrimination based on weight and height is the third highest form of discrimination among women and fourth highest form of discrimination among men. This discrimination is apparent in personal relationships and in the employment setting thus decreasing job opportunities (Puhl et al.). Individuals report name-calling, feelings of inferiority, and put downs as modes of discrimination in relationships. These forms of discrimination can lead to a decreased self-respect and increased levels of psychological stress. Women are more vulnerable to weight discrimination than men (Puhl et al.). In addition, negative societal attitudes and weight bias is recognized as current social injustice issues. Many overweight and obese individuals report social boundaries and socially isolating to avoid dealing with the obesity and feelings of embarrassment (Heading, 2008).

There are increased levels of depression among individuals in both the overweight and obese categories (De Wit, Van Straten, Van Herten, Penninx, & Cuijpers, 2009; Puhl

et al., 2008). A meta-analysis of literature found that obese adults are two times more likely to be depressed than non-obese adults conversely; depressed individuals are more likely to develop obesity than non-depressed individuals (Blaine, 2009). Individuals can experience a decrease in motivation during multiple attempts at weight loss. These individuals have been identified as having a lack of self-discipline while eating food for pleasure and comfort, and getting adequate physical activity (Heading, 2008). There is limited research and information on individuals with obesity who have decreased levels of motivation.

In general, individuals who have a lower socio-economic status (SES) are more likely to be overweight or obese than individuals with a higher socio-economic status (NCHS, 2009). This can be due to a variety of factors including lack of access to health care, fewer opportunities for adequate health screening, inability to afford a healthy diet, and decreased opportunities to be physically active (Lurie & Dubowtiz, 2007; Wigg, Damman, & Smith, 2009). A higher BMI is associated with older age, less education, lower income, and poorer health status (Boutelle, Neumark-Sztainer, Story, & Resnick, 2002; Loureiro & Nayga, 2006). Disparities include environments of people with lower SES because of the disadvantages communities face. Individuals identify multiple barriers to accessing healthy food and adequate nutrition. These include a lack of food storage, an inadequate area to cook, and the inability to access grocery stores due to a lack of transportation (Wigg, Dammann, & Smith).

Due to the fact that many individuals with a low SES do not have access to grocery stores, food choices are often limited to higher priced items in smaller packages. Frequently these foods are associated with higher caloric and fat content. Environments

that support healthy food choices are eating with family and having access to food through charitable donations from churches, homeless shelters, and food banks. Wigg et al., found that single women with children and a lower SES had inadequate knowledge of nutrition, inadequate kitchen skills, and experienced an increased burden with the multiple roles they fulfill for their families. These women frequently choose quantity over quality to make the food supply last longer. Along with the high cost of nutritious foods, these women had a desire to provide adequate nutrition for their families, but because of their low SES were unable to reach these goals. These factors contribute to an increased level of stress and an increased rate of obesity for women and their families who have a low SES and their families (Wigg et al.).

Cost

Personal health choices directly affect the cost of healthcare. In 2002, "The average increase per person in annual medical spending associated with obesity was 37.4 percent ($732), and ranges from 26.1 percent ($125) for out-of-pocket to 36.8 percent ($1,486) for Medicare, and 39.1 percent ($864) for Medicaid" (Sallis & Glanz, 2009, p.220). The cost of obesity alone is high but obesity related diseases accounted for nearly 100 billion dollars per year in the late 1990's (NIH, 1998). This can be the direct cost of treating obesity itself or indirect costs of treating the secondary complications associated with obesity. According to Hill et al. (2009), obese and physically inactive individuals are risk factors to insurance companies. People with one of these risk factors have higher annual costs of healthcare than those who are either not obese or are physically active. If someone has both factors, the annual cost is 75 percent higher than an individual without these risk factors (Hill et al.). Individual risk factors, BMI measurements, psychosocial

concerns, secondary co-morbidities of obesity can all be screened, assessed and evaluated, and treated through diagnosis by health care professionals.

Role of Health Professionals and Occupational Therapists

Extensive research has shown that obesity rates continue to climb at an alarming rate with chronic health implications. According to Scaffa et al. (2010), "food choices, physical activity, lifestyle, environment and genes all affect an individual's wellbeing and overall health status" (p. 259). Healthcare professionals seek to promote health and well-being among individuals and have an important role in identifying, preventing and managing the disease of obesity (AOTA, 2007; Blanchard, 2006; Ma, Xiao, & Stafford, 2009). It is the responsibility of health care professionals including occupational therapists to educate the public about weight management and to assist in the development and maintenance of a healthy lifestyle (Scaffa et al.). The role of occupational therapists supports prevention and management of obesity (AOTA, 2007; Blanchard, 2006).

AOTA (2007) defines occupational therapists' role as implementing and utilizing a holistic perspective employing the use of occupations and daily activities to manage obesity, while decreasing mortality and developing an improved quality of life. Occupational therapists provide interventions that are meaningful, motivating and promote participation in one's daily life activities through modifying one's habits, roles, and daily routines, remediation/restoration, adaptation/compensation and maintenance of obesity. The holistic knowledge and skills occupational therapists have to offer individuals with obesity includes psychosocial, physical, contextual, spiritual and cultural

aspects that influences one’s life that have an effect on quality of life and participation in daily activities (AOTA, 2007).

Discrepancies exist among healthcare professionals on how obesity is managed and prevented. Lutfiyya, Nika, Tragos, Wom, and Lipsky (2008) found that healthcare professionals provided primary prevention suggesting maintaining body weight, changing eating habits, and using physical activity for only 2.6% of healthy weight adults. Ma et al. (2009) found that 50% of clinic visits lacked an obesity screening using BMI height and weight measurements, while 70% of patients with clinical obesity were not diagnosed, and 63% did not receive any lifestyle change recommendations such as increasing physical activity levels and changing diets. However, 36% of adults with BMI greater than 30 with related co-morbidities were diagnosed with obesity, at the same time, 46% received counseling (Ma et al.). Researchers reported that adults at health weights who received primary prevention were twice as likely to attain the recommended levels of physical activity per week as those who did not receive primary prevention for risks of obesity (Lutfiyya et al.).

Not only are health professionals responsible for screening and providing primary prevention for adults who are at risk for obesity, but they are responsible to encourage and support patient lifestyle changes. Research by Jallinoja et al. (2007) found that healthcare professionals (88% physicians and 95% nurses) agree that it is the responsibility of the patient to accept and implement lifestyle changes suggested by health care professionals. Health care professionals reported barriers to the prevention of obesity as the lack of patient motivation and compliance to lifestyle change recommendations.

Health professionals report that their role is to provide information, motivation, and support as part of assisting patients to modify his/her lifestyle. Two-thirds of healthcare professionals report having the ability to help patients change their lifestyle to a healthier one, as well as, over half report having the skills required to encourage lifestyle recommendations (Jallinoja et al.). Findings of Harvey, Glenny, Kirk, & Summerbell (2001) indicated that physicians and other health care professionals need further training to successfully identify and implement appropriate assistance for individuals with obesity. Patients report being open to having their primary physician involved in their weight management and would like them to be involved in future goal setting, dietary advice, and exercise recommendations (Potter, 2001).

Evaluation

Physicians and health care professionals can get involved in their patients' management of health care through screening, evaluation, and intervention for individuals with obesity or those demonstrating risks of the disease. Health professionals use multiple tools to assess numerous aspects of obesity. These include health risks, co-morbidities, family history, demographics and gender, patient motivation and readiness for change, and current dietary habits and physical activity routines (Brawer, Brisbon, & Plumb, 2009; Plodkowski & Krenkel, 2005; Porth, 2005). A health assessment that includes medical history, physical examination, weight changes, as well as functional and nutritional status can determine if there are any potential complications associated with obesity (Porth, 2005).

Anthropometric measurements include BMI (based on height and weight), waist circumference (total body fat content), and skin-fold thickness to determine percentages

of muscle mass and body fat (Porth, 2005). Measured waist circumferences of 35 inches and above in women and 40 inches and above for men are positively correlated with co-morbidities and health risks. Using a tape measure above the hips when measuring waist circumference is recommended (CDC, 2009a). The BMI chart (see Appendix A) is a table with height and weight scores to categorize individuals within a BMI category.

Risk factors associated with obesity include smoking, hypertension, high LDL cholesterol, low HDL cholesterol, high triglycerides and blood sugar, family history of heart disease, and physical inactivity (DHHS, 2006). The DHHS recommends that individuals with BMI 25-29.9 (overweight) without a high waist circumference and who have less than two risk factors should maintain their weight and not gain. A high waist circumference is greater than 35 inches for women and greater than 40 inches for men (DHHS, 2006). People with a BMI 25-29.9 with a high waist circumference and have two or more risk factors should lose weight, as well as individuals with a BMI greater than 30 (obese) are highly recommended to lose weight. Weight loss of 5-10% within a 6-month period lowers the risk of developing weight-related chronic disease and illnesses; this is recommended to be the initial goal at the start of the weight loss process (DHHS, 2006; Porth, 2005).

It is recommended that individuals with co-morbid cardiovascular risks complete a stress test before starting a moderate-intensity exercise program (Plodkowski & Krenkel, 2005). Physical assessments including strength, flexibility, balance and endurance should be implemented before individualized exercise programs are employed to monitor graded increases of physical activity. The Borg Rating of Perceived Exertion Scale (RPE) is a tool used for individuals to rate perceived exertion during a physical

activity. The scale ranges from 6 (no exertion at all) to 20 (maximal exertion). Moderate-intensity physical activity ranges from a 12-14 (somewhat hard) on the exertion scale where an individual can talk during the physical activity but cannot sing. A vigorous-intensity physical activity might range from 15-17 (hard) where an individual could speak a few words without stopping for a breath. The RPE can be used for individuals to monitor and adapt the level of intensity of a physical activity (CDC, 2009g).

Evaluation of an individual's motivation for weight loss should include questioning the person about reasons and motivations for weight loss, perceptions and attitudes of physical activity, one's abilities to perform in physical activities, and the availability for change along with the barriers to change (Porth, 2005). Other factors include evaluating the individual's social supports, history of previous weight loss trials, and comprehension of obesity as a disease and associated risks (Porth). It is important to evaluate an individual's psychosocial factors as changes in weight and habits occur (Plodkowski & Krenkel, 2005).

Occupational therapy evaluations for individuals with obesity included assessing occupational performance and developing an occupational profile (Scaffa et al., 2010). Occupational therapists evaluate performance skills specifically regarding dressing, bathing, mobility, meal preparation, and other activities of daily living (Mosley, Jedlicka, Lequieu, & Taylor, 2008). Occupational therapists can evaluate perceived level of performance and satisfaction to complete daily activities to collaborate with the individual to identify problem areas and goals to overcome them using the Canadian Occupational Performance Measure [COPM] (Mosley et al.). Performance skills, patterns, contexts, activity demands, and client factors need to be assessed for the

individual with obesity. Client factors affect performance in daily activity through the individual's skills, values, and characteristics. These include the physiological functioning and anatomical parts of a human body. Activity demands are elements required to complete an activity or task. They include the objects and space required. AOTA defines performance skills as actions that are broken into steps to complete an activity. These include motor, sensory, emotional, cognitive, and communication skills. An individual's habits, roles, routines, and rituals are considered performance patterns. Habits are automatic behaviors, whereas routines are specific sequences of daily life. Roles define an individual's position within a society or culture. Rituals are specific actions that are symbolic and have a meaning to an individual. Contexts and environmental aspects of an individual include physical, personal, social, cultural, temporal, and virtual (AOTA, 2008). An individual engages in his/her occupations in these different areas.

Intervention

Once an evaluation of an individual is completed, occupational therapists focus on selecting interventions that include modifying behaviors and habits, identifying leisure activity interests and engaging in physical activities, as well as modifying daily activities. The occupational therapist should evaluate the context, environments, or the use of adaptive equipment with the collaboration of the individual. The focus not only on physical performance but also on psychological health and wellbeing (Mosley et al., 2008). Occupational therapists can provide preventative strategies and interventions for individuals with obesity through primary, secondary, and tertiary care (AOTA, 2007; Blanchard, 2006; Mosley et al.).

Primary care is defined as preventing a disease such as obesity from occurring. The focus is on healthy individuals whose habits may be at risk. Possible interventions include promoting lifestyle modification programs, educational sessions on how to incorporate fun physical activities into daily life, and providing education on stress management techniques, etc. (Mosley et al.). Secondary care is providing early discovery and ways to manage and control the disease of obesity. An example of an intervention strategy at this level includes becoming a member of a wellness program to implement lifestyle modification techniques. Tertiary care is intervening when the disease interferes with performing daily activities and functional level. Intervention strategies include the use of adaptive equipment and environmental modifications.

Occupational therapists are a part of an interdisciplinary team of health professionals that provide pharmacological, surgical, and lifestyle modification. The focus of occupational therapy is to increase physical activity, support healthy choices, incorporate behavioral interventions, and use assistive technology and adaptive equipment to increase individuals' occupational performance, independence, and psychological well being (Mosley et al.). It is important for health care professionals to be self-aware of bias towards weight and obesity to be able to treat individuals effectively with a trusting and healthy therapeutic relationship (Scaffa et al., 2010).

Lifestyle Modification

It is the responsibility of health care professionals to identify, prevent, and recommend lifestyle changes to their patients with obesity; research found that the most effective intervention for adults with obesity is a combined lifestyle therapy that includes a low-calorie diet, an increase in daily physical activity, and behavior therapy (Brawer et

al., 2009; Porth, 2005). A successful weight management program must include individualized plans and realistic goals to meet patient’s needs in order to experience weight loss success (DHHS, 2006). A successful obesity program incorporates a continuous increase of intensity involving counseling, patient self-monitoring and accountability throughout the course of treatment (Plodkowski & Krenkel, 2005). In addition, the goal of lifestyle modification is to maintain a lifelong healthy weight.

Research illustrates that lifestyle modification has numerous positive health advantages. These include changes in one’s diet such as implementing the Dietary Approaches to Stop Hypertension (DASH) diet (Vollmer, Sacks, & Svetkey, 2001) and increasing physical activity habits which decrease blood pressure and risks for cardiovascular diseases (DHHS, 2006; Plodkowski & Krenkel, 2005). Other advantages include a decreased risk for Type 2 diabetes (DHHS, 2006; Wikstrom et al., 2009), decreased incidence of cancers (Harvie et al., 2005), in addition to decreases in body weight (Digenio, Mancuso, Gerber, Dvorak, 2009; DHHS, 2006).

Ghroubi et al. (2009), found that combined therapy including increased physical activity three times per week, strengthening, and dietary modifications were found to have significant weight loss and improvements in metabolic diseases associated with obesity. Combined therapy also increased muscle strength and endurance during aerobic activities, and improved psychosocial status (quality of life) when compared to the control group that had no dietary or physical activity recommendations and the group with no additional strengthening program.

Digenio et al. (2009), found that individuals who used a face-to-face and telephone lifestyle modification counseling programs had significant weight loss when

compared to e-mail counseling and self-help groups. Increased HDL cholesterol, improved triglyceride levels, and increased satisfaction with quality of life for individuals with obesity, were significant in all lifestyle modification groups (Digenio et al.). The lifestyle modification program included combined lifestyle modification interventions with pharmacological assistance, a low caloric diet, the use of a pedometer, incorporating goal setting, daily food and activity logs, and a support system. Educational materials such as a lifestyle modification manual and an interactive weight loss website were also used in the program.

Wikstrom et al. (2009), found lifestyle modification interventions for individuals with diabetes were effective in the intervention group regardless of educational level and social economic status. The study demonstrates its lifestyle modification success with individualized programs by utilizing weight reduction through a low calorie diet with increased fiber consumption and participating in 30-minutes of moderate-to-vigorous physical activity each day. Other supporting lifestyle management and weight loss interventions include the consumption of regular meals, decreased snacking between meals, drinking water in place of high calorie and sugared beverages, decreasing sedentary behaviors, and increasing physical activity (Porth, 2005).

Physical Activity and Sleep

The DHHS (2006), reports multiple benefits of having a physically active lifestyle; physical activity strengthens lungs, muscles, and aids in joint health, slows bone loss, gives individuals more energy, aids in relaxation, sleeping, and coping with stress. In addition, it can build confidence and provides a means to share time with family and friends.

Individuals with obesity can improve their quality of sleep by incorporating a sleep hygiene schedule within one's night routine. A sleep hygiene schedule provides structure and routines to assist individuals in developing better sleep habits. Strategies to improve sleep include avoiding caffeine and alcohol consumption late in the day, avoiding heavy meals two hours before bedtime, avoiding drinking fluids after supper to prevent nighttime trips to the bathroom, avoiding active and loud environments before bed, and avoiding using one's bed for other activities besides sleep (Petit, Azad, Byszewski, Sarazan, & Power, 2003). It is important to create a bedroom that supports sleep by keeping the room's temperature at a comfortable level, making the room dark, and learning to relax in bed and utilize relaxation techniques, as well as, getting up at the same time each morning (Petit et al.).

Participating in physical activity increasing one's quality of life regardless of BMI status (Jia & Lubetkin, 2005). Increase one's daily activity level should start with 10-15 minute activity bouts and gradually increase the activity time and level of intensity each week. When improving one's health therefore decreasing the risks for chronic disease, it is recommended to manage weight by completing 30-60 minutes of moderate-to-vigorous physical activity most days of the week. For weight loss and maintenance of weight loss, completing 60-90 minutes of moderate physical activity each day is recommended (DHHS, 2006). The CDC (2009g) recommends implementing 150 minutes of moderate intensity physical activity or 75 minutes of vigorous physical activity (aerobic) each week. Further recommendations include adding activities to promote muscle strengthening two or more days each week. Muscle strengthening activities include lifting weights, using resistive bands, completing weight-bearing activities such as push-ups and

sit-ups, and yoga (CDC, 2009g). Completing 8 to 10 repetitions with 1to 3 sets, 2 days of the week to strengthen muscles and bones is also recommended (CDC, 2009g).

Occupational therapists recommend implementing physical activity into one's life through meaningful activities such as walking, swimming, gardening, completing household duties, and getting involved in sport activities (Scaffa et al., 2010). Other ideas are parking one's car farther away in the parking lot so you have to walk farther and completing your own household chores instead of hiring a cleaning service. The initial introduction into increasing one's physical activity is recommended to start with 30 minutes of moderate-level intensity each day for three days per week and gradually increasing to 45 minutes per day, five times per week. Note that 30 minutes a day of physical activity can be broken up into shorter bouts of activity throughout the day (CDC, 2009g; Porth, 2005). Individuals who are obese and/or have cardiovascular and other health risks should implement physical activity and exercise even more slowly with close monitoring to avoid injury and slowly progress to increased length and level of intensity (CDC, 2009f; Porth, 2005; Scaffa et al.).

In a four year longitudinal study by Coakley et al. (1998), middle aged men whom maintained a high level of vigorous physical activity had a lower risk of becoming obese than men who quit smoking and decreased sedentary behaviors such as television watching. Conversely, in a study conducted by Clarke, Freeland-Graves, Klohe-Lehman, and Bohman (2007), found that physical activity did not have a large impact on mothers of Hispanic, African-American, and White ethnicities. According to the CDC (2009g), fast walking is considered a moderate intensity activity for weight loss. *America on the Move* is national nonprofit organization that advocates increased physical activity

(America on the Move Foundation, 2009b). *America on the Move* promotes taking 2,000 steps or more daily and to decrease energy intake by 100 calories per day to gain positive health and to stop weight gain (America on the Move Foundation, 2009a).

Individuals who incorporate regular physical activity into their daily life have a better quality of life, lower risks for depression, and have improved mental health. Regular physical activity keeps one's thinking, learning, and judgment sharp and intact (CDC, 2008). A study by De Vet, Oenema, Sheeran, and Brug (2009), found no difference between individuals who had pre-selected activities and those with self-selected physical activities. Planning physical activity throughout one's week was not statistically significant in decreasing one's BMI (De Vet et al.).

Healthy Diet and Food Choices

Increasing one's physical activity is only one part of gaining a healthier lifestyle, (Clarke et al., 2007). Changing one's diet and daily food choices is another aspect of successful aspect of weight loss and management needed in lifestyle modification. Individuals with a greater knowledge of nutrition have greater weight loss results (Clarke et al.).

The food guide pyramid (found at MyPyramid.gov developed in 2006 by International Food Information Council Foundation [IFIC], Food Marketing Institute [FMI], and the United States Department of Agriculture, [USDA]) provides information on steps and tips to a healthier lifestyle by choosing healthy, nutritious and right size food portions each day (USDA, 2009). The food pyramid consists of five food groups; grains, vegetables, fruits, oils, milk, and milk and beans. The IFIC (2006) recommends eating a variety of food from each food group each day that contain the most vitamins, minerals,

and nutrients. This can be achieved by eating food made from whole grains, vegetables and fruits, low-fat and fat-free dairy products, lean and low-fat meats, beans and other protein, oils that are liquid at rooms temperature, and consuming the fewest calories from solid fats and sugars. Portion control and keeping track of how much one eats each day helps maintain a balance between energy intake and energy expenditure (IFIC).

Clarke et al. (2007) found that women who increased their protein intake experienced greater weight loss. Weight loss was not correlated with changes in consumption of carbohydrates, fat, fiber, calcium, or following portion sizes according to the food guide pyramid (Clarke et al.). The DHHS (2006) emphasizes the importance of controlling portion sizes. Losing weight means cutting back calories and burning more energy than consuming. Recommendations from the DHHS (2006) for the weight loss of 1to 2 pounds per week, approximately 500-1000 calories should be cut from one's daily diet. Women that consume a daily diet of 1,000-1,200 calories each day will assist in healthy weight loss. It is recommended that men and women who weigh 165 and over should consume a daily diet of 1,200-1,600 calories each day to aid in the weight loss process. Research conducted by Coakley et al. (1998), illustrated that middle-aged men who stopped snacking between meals lost more weight than those who continued to eat extra daily meals.

In addition to understanding healthy diet and food choices, it is imperative for health care professionals to be aware of psychosocial correlations with overeating and eating behaviors. Environments can influence an individual's unhealthy eating patterns, an individual's personal beliefs, attitudes, and knowledge of eating, and their eating behaviors (Scaffa et al., 2010).

Behavior, Motivation & Psychosocial Strategies for Obesity

Behavioral therapy is an effective approach for weight loss, especially when combined with diet and increased physical activity (Shaw et al., 2006). Successful weight loss and management involves having a positive attitude and motivation for weight loss including a desire for an improved health status, having more energy and an enhanced self-esteem and control over one's life and health (Scaffa et al., 2010). Behavior therapy aids in the initial compliance to lifestyle modifications and long-term weight management. Individuals who are obese and identify a desire to achieve weight loss and management benefit from self-monitoring eating habits, behaviors, and physical activity. These strategies include utilizing food and activity logs, managing stress including recognizing personal warning signs of stress, changing negative thinking patterns, and controlling the environment. It is helpful when individuals develop a relapse plan, support system, and are held accountable for monitoring patterns of behavior and increasing physical (Porth, 2005; Scaffa et al.). Other interventions such as relaxation therapy and hypno-therapy are less studied and need further research to determine effectiveness in weight management.

The Trans-Theoretical Model of Change, social cognitive theory, and relapse prevention are identified as models used to aid in the success of weight loss and management (Brawer et al., 2009; Scaffa et al. 2010). Cognitive-Behavioral therapy combined with diet and physical activity had increased weight loss success compared to just diet and exercise alone (Shaw et al., 2006). However, cognitive therapy was not found to be an effective weight loss treatment when used alone.

Occupational therapists have identified Model of Human Occupation (MOHO) as a model to promote health and wellness (Scaffa, Reitz, & Pizzi, 2010.). The use of MOHO for health promotion focuses on one's participation in occupations within one's established roles (Kielhofner, 2009). MOHO encompasses the term volition also known as motivation (Kielhofner). The model illustrates that one's motivation is derived from personal interests and choices and motivation guides what an individual chooses to do (Kielhofner). As defined by Kielhofner, MOHO assists individuals in changing their unhealthy habits and engaging in occupational and daily activities within their environment that supports healthy choices.

A study completed by Riegar et al. (2009) involved 22 obese adults in combined intervention with cognitive-behavioral and motivational enhancement therapy (MET) for weight loss and maintenance for 20 weeks. MET focuses on using motivational strategies to assist the patient to overcome uncertainties with changing unhealthy habits while building individuals' self-confidence and efficacy. After a one-year follow up questionnaire, patients reported having maintained the 4.5% weight loss that was lost during treatment with an increased quality of life, decreased binge eating tendencies, decreased body dissatisfaction, and decreased maladaptive thinking patterns.

Women who lived with a spouse or significant other lose twice as much body weight than women who did not; illustrating the need for social support during weight loss (Clarke et al., 2007). In addition, mothers who reported being dissatisfied with their appearance and valued weight loss, as well as positive attitudes towards healthy eating experienced increased motivation and demonstrated more reduction of weight. Clarke et al. (2007) found that women with low SES have success with weight loss when provided

techniques to enhance social supports, attitudes toward health and benefits of weight loss, and education on nutrition. Utilizing the family in intervention to change behaviors and provide social support to promote healthy habits and lifestyles for individuals and families with obesity found to be successful (Gruber & Haldeman, 2009).

Pharmacological and Surgical Interventions

Pharmacological and surgical interventions have been a choice of treatment for select individuals with obesity. Pharmacotherapy has been limited to obese individuals with a BMI greater than 30 or individuals with a BMI of 27-30 with risk factors and/or co-morbid diseases such as diabetes, sleep apnea, heart disease, and other illnesses (Porth, 2005). Pharmacotherapy treatment was used when lifestyle modification treatment did not result in weight loss after six months (Porth, 2005; Scaffa et al., 2010). Sibutramine, used as an appetite suppressant and Orlistat, used for fat absorption are the two current medications used for the treatment of obesity that are approved by the FDA (Porth, 2005; Scaffa et al.). A meta-analysis review illustrated that individual's taking a placebo did not lose weight, whereas those using pharmacological agents (Sibutramine, Orlistat, Rimonabant) had a five to ten percent loss of weight. These results indicate that pharmacological agents improve health conditions and weight loss. It is important to monitor individuals for adverse events (Padwal, Rucker, Li, Curioni, & Lau, 2003).

Gastric bypass and vertical banded gastroplasty are treatment choices for extreme obese adults (BMI 40 and above) with co-morbidities. Surgery is offered to individuals with motivation to lose weight and those who are well informed of the risks and benefits of surgery (Scaffa et al., 2010). One study noted that surgical interventions are more effective than other treatments for individuals with a BMI of 30 and above as well as for

individuals with extreme obesity or a BMI of 40 and above (Colquitt, Picot, Loveman, & Clegg, 2009). The intragastric balloon is another weight loss surgical approach to limit food intake. Fernandes et al. (2007) did not find significant results with the surgical balloon intervention and noted risks for secondary minor complications and death were higher with this procedure. It is recommended that following surgery, individuals should participate in a program that assists in diet, physical activity, and behavioral therapy treatment (Porth, 2005).

Patient Education

Patient education is important in planning and implementing a lifestyle modification program for individuals who are obese. Resources developed include educational materials, demonstrations, information sessions, and hands-on practice. According to Bastable (2006), "the purpose of patient education is to increase the competence and confidence of clients for self-management," (p. 8). Patient education is a process used to aid individuals to learn new behaviors to implement these strategies into everyday life. Diseases that are viewed as being related to life-style choices can be prevented through education approaches to promote independence of individuals and their families. Patient education provides improved quality of life, enhances independence and performance of daily activities, and empowers individuals to assist in the planning of their treatment.

Current studies illustrate that health care professionals have limited knowledge of intervention for individuals with obesity as evidenced by a lack of screening, referrals for additional services, and recommendations for lifestyle modification (Ma et al., 2009; Lutfiyya et al., 2008). In the study conducted by Jallinoja and colleagues (2007),

resources were not provided to patients due to healthcare provider's perception of their personal skills in the area of lifestyle counseling. However, despite a lack of skill these providers still felt they were able to assist patients in changing their lifestyles. Research indicates that individuals who receive and adhere to patient education courses, as well as, to the recommendations provided within the educational courses, have a higher rate of the management of weight (Kamioka et al., 2009). Studies have indicated that patients who have received sufficient information on how to manage self-care are more satisfied with their health care (Bastable, 2006).

Conclusion

Obesity is a growing health concern and the disease has many associated factors. Genetics is one of the many factors that contribute to obesity (CDC, 2009h, Porth, 2005). However, research indicates that environment has a stronger correlation in the development of being overweight or obese (Bouchard, 2007). These environments include physical, cultural, temporal, and social aspects. Environmental challenges consist of living in inner-city and urban areas with decreased access to healthy food choices, and fewer opportunities for increased physical activity, eating away-from-home foods, and social eating (Ayala et al., 2008; Banwell et al., 2009). Living in the 21st century with convenient high-energy dense foods, over-sized portions, and increased food marketing influence the rise of the obesity epidemic (CDC, 2006 Lurie & Dubowitz, 2007).

Individuals with a low SES have a higher prevalence of obesity; a number of factors influence this including low education levels, limited access to healthy foods and activity choices, and inadequate health care (Boutelle et al., 2002; Loureiro & Nayga, 2006; Wigg et al., 2009; WHO, 2009). Secondary health risks and diseases are higher

among those with obesity and contribute to the high health care costs currently in the United States (Hill, 2009; NIH, 1998; Sallis & Glanz, 2009). Research indicates that obesity is related to sedentary lifestyles that include increased hours spent watching television and playing videogames (Banwell et al., 2009). Obesity is related to poor food and nutrition choices, psychosocial concerns (emotional eating, uncontrollable eating, depression, stress, and anxiety), decreased self-confidence and quality of life, food addiction, negative stereo-typing and discrimination, unhealthy behavioral habits, and decreased motivation (Ayala et al.; Banwell et al.; Clark et al., 2007; De Wit et al., 2009; Heading, 2008; Jia & Lubetkin, 2005; Porth; Puhl et al., 2008; Rohrer et al., 2009; Scaffa et al., 2010).

Extensive research has been done on the treatment of overweight and obese adults. A combination of increased physical activities, health food choices, and behavioral therapy is proven to be the most effective approach to weight loss and maintenance through lifestyle modification (Brawer et al., 2009; Porth, 2005). However, a discrepancy lies between the treatment approach and health care professionals' role with individuals living with obesity. Obesity is under-diagnosed, under-referred, and under-treated (Ma et al., 2009; Lutfiyya et al., 2008). If the obesity epidemic is to be controlled, health care professionals including occupational therapists must screen, assess, and evaluate, refer, and intervene with an interdisciplinary and holistic approach for the treatment and management of obesity.

There is a limited amount of research and information on the impact, prevalence, and effective treatment strategies utilized for adults with low socioeconomic status' and those with a physical and or cognitive disability living with obesity. The role of

occupational therapists in the treatment of obesity and promotion of health and wellness is an emerging area of occupational therapy practice recent area. The role of occupational therapy with clients diagnosed with obesity is to evaluate and treat the impact of the illness on participation in activities of daily life (AOTA, 2007; Mosley et al., 2008; Scaffa et al, 2010). This program is intended to promote lifestyle modification with the use of meaningful occupations to increase physical activity, enhance the ability to make healthy food choices and preparation, as well as incorporate behavioral and psychosocial strategies to assist in a smooth transition to a life of healthy living.

The purpose of this project is to design a 12-week lifestyle modification program for community dwelling adults who are overweight or obese living in a supported housing complex. Individuals living there have limited income and other resources. Chapter III describes the methodology used to develop the program.

CHAPTER III

METHODOLOGY

A comprehensive review of literature was completed using summative evaluations of research from PubMed, Scopus, CINAHL, Cochrane Database, ProQuest, journals from American Occupational Therapy Association (AOTA), and other occupational therapy texts. Based on the literature, problems were identified among adults who are overweight or obese.

Obesity has become a worldwide epidemic and has doubled in a 20-year span from 1985 to 2008 (Centers for Disease Control, [CDC], 2009e; World Health Organization, [WHO], 2009). Obesity is correlated with many chronic diseases (CDC, 2009d; WHO, 2009). Living in the 21st century with convenient high-energy dense foods, over-sized portions, and increased marketing of food has influenced the rise of the obesity epidemic (CDC, 2006; Lurie & Dubowitz, 2007). Having decreased access to healthy food choices and opportunities for increased physical activity, eating away-from-home foods, and social eating is associated with the development of obesity (Ayala et al., 2008; Banwell et al., 2009). Obesity is correlated with a low socioeconomic status (National Center for Health Statistics [NCHS], 2009). Individuals living with a low socioeconomic status are found to be less educated, have limited resources to healthy foods, decreased physical activity choices, and inadequate health care (Boutelle, Neumark-Sztainer, Story, & Resnick, 2002; Loureiro & Nayga, 2006; Wigg, Dammann, & Smith, 2009; WHO, 2009).

Once the problems are identified, an analysis of research illustrated effective treatment strategies and approaches from which the product was determined and developed. A combination of increased physical activities, health food choices, and behavioral therapy are proven to be the most effective approach to weight loss and maintenance through lifestyle modification (Brawer, Brisbon, & Plumb, 2009; Porth, 2005). Although there is limited research on occupational therapy intervention strategies and approaches among community-dwelling adults with obesity, based on the literature review and the AOTA (2008) definition of occupational therapy with individuals with obesity, effective strategies and treatment approaches were identified to guide the product. AOTA's definition of the role of occupational therapy and obesity is to establish or restore healthy habits within the client's roles and routines such as choosing healthy food items, increasing one's participation in meaningful occupations through physical activity, and improving one's psychosocial wellbeing (AOTA, 2008).

The product was developed from the findings of the literature review. It was guided by the Model of Human Occupation (MOHO) occupational behavior model (Kielhofner, 2009). This model has three main concepts which are volition, habituation, and performance capacity (Kielhofner). Volition is the individual's motivation to complete tasks and daily activities. Habituation is comprised of habits, roles, and routines. Habits are automatic ways of doing, that are incorporated into one's life roles and influence an individual's routines. Kielhofner describes roles as a way of identity. Performance capacity is the third main concept within the MOHO, which includes physical and cognitive skills of an individual required to complete a task. The model also addresses the impact the environment has on the individual's ability to perform a task

(Kielhofner). The environment encompasses physical, social, cultural, economic, and political contexts that influence one's motivation and performance in occupation. MOHO provides the foundation for the lifestyle modification program for community-dwelling adults with obesity. The model incorporates ideals of client-centeredness and factors that may inhibit occupational performance.

A 12-week program was chosen to allow sufficient time to assist individuals in modifying roles and habits. Each session is one hour in length. This allows education review and application of materials. Materials were developed and analyzed for an eighth grade or below readability level. Research illustrates the importance of developing adult education at an eighth grade or lower level for comprehension and follow-through of educational resources (Griffin, McKenna, & Tooth, 2006).

Multiple tools used by health professionals to assess obesity were reviewed incorporating many aspects of the disease such as Body Mass Index (BMI) and waist circumference measurements, health risks, co-morbidities, family history, demographics and gender, patient motivation and readiness for change, and current dietary and physical activity habits (Brawer et al., 2009; Plodkowski & Krenkel, 2005; Porth, 2005). Assessments that will be included based on this review and the Model of Human Occupation. The following tools were selected for the inclusion in the *Step It Up to A Better You* program; BMI, waist circumference, Obesity Related Well-Being Questionnaire (ORWELL 97) Occupational Questionnaire (OQ) from MOHO, and Daily Food Habits Questionnaire.

BMI is a measure used to classify weight range for the adult population (CDC, 2009e; National Institutes of Health, [NIH], 1998; WHO, 2009). Waist circumference is

correlated with total body fat content (Porth, 2005). The ORWELL 97 was chosen to demonstrate the program's effectiveness in improving individuals with obesity's quality of life (Mannucci et al., 1999). MOHO's OQ will assist the program's facilitators in identifying current participation in occupations and physical activities, as well as, the individual's perception of performance and enjoyment in occupations (Smith, Kielhofner, & Watts, 1986). The Daily Food Habits Questionnaire was created by the authors of the program to provide a description of the program of the individuals' current daily food habits. The ORWELL 97, daily food habits questionnaire, OQ, BMI, waist circumference are all the assessments that will be implemented prior to the 12-week program and following the conclusion of the 12-week program to measure outcomes of the program and determine effectiveness with community-dwelling adults living with obesity. In addition, group members will have the opportunity to weigh themselves weekly for feedback to keep motivated. Other weekly assessments will be the food and activity logs, recorded number of steps via the pedometer, and physical activity conversion chart from the webpage of HealthPartners 10,000 Steps Program (2009). The conversion chart converts physical activities into number of steps the individual would have taken during the activity. Chapter IV provides a summary of the product and theoretical frames of references used to guide its development.

CHAPTER IV

PRODUCT

Obesity is becoming a world epidemic (World Health Organization, [WHO], 2009). The impact of obesity is negatively affecting individual's participation in daily activities and occupations, as well as, quality of life. Those with limited financial and other resources are at a greater disadvantage for developing obesity (National Center of Health Statistics [NCHS], 2009).

Step It Up to A Better You is a 12 week lifestyle modification program designed for community-dwelling adults who are overweight or obese with limited financial and other resources. The program is designed to meet the needs of this population by providing education and resources to establish healthy nutrition and physical activity habits within one's roles and routines of daily life. The program provides structured group sessions for occupational therapy practitioners who are working with adults with obesity. Handouts, materials, and resources provide the program participant with information and tools to implement a change in his/her lifestyle.

The intended goal of this program is to gain a healthy lifestyle with an enhanced quality of life and ability to participate in one's meaningful daily activities. The program includes sessions on motivation, how to incorporate meaningful activity into one's day, healthy meal planning, healthy meal preparation, how to maintain focus, exploring community resources, developing coping strategies, improving one's quality of sleep, healthy lifestyle maintenance plan, and a celebration at the conclusion of the program.

The program is guided by the Model of Human Occupational (MOHO) developed by Kielhofner (2009). This model is suitable for adults diagnosed with obesity because it is comprised of concepts that provide the foundation to present holistic intervention approaches and strategies to modify routines and habits. MOHO establishes the groundwork for the participant to experience success while striving to gain and maintain a healthy lifestyle.

Assessment tools of the program include BMI, waist circumference, Obesity Related Well-Being Questionnaire (ORWELL 97), Occupational Questionnaire (OQ), and a developed Daily Food Habits Questionnaire. These provide base line and outcome measurement regarding the effectiveness of the *Step It Up to A Better You* program. Chapter V provides a summary of the program and key information found throughout the process. Recommendations for program implementation and future research are included.

CHAPTER V

SUMMARY

Adult obesity is increasing at an alarming rate. A plan for intervention needs to be implemented (Centers for Disease Control [CDC], 2009e; World Health Organization [WHO], 2009). The *Step It Up to A Better You* is a 12-week lifestyle modification program for community-dwelling adults who are overweight or obese. The program consists of one-hour educational sessions on promoting healthy habits within one's roles and daily routines. The purpose of the program is to assist overweight and obese community-dwelling adults to gain a healthy lifestyle with an enhanced quality of life and ability to participate in one's meaningful daily activities. Occupational therapy provides a holistic approach that encompasses healthy eating and nutrition choices, increased physical activity, and psychosocial implications of obesity that negatively influence quality of life and ability to gain and maintain a healthy lifestyle.

Each group member will be assessed, monitored, and encouraged to achieve their healthy lifestyle goals. Each group member will be encouraged to attend all 12 educational sessions to gain the tools and resources to change one's habits through discussion, activities, lectures, demonstration, and handouts. The information and education gained from the sessions will assist group members to achieve an enhanced quality of life and maintain a healthy lifestyle.

The facilitators of the program will include a registered occupational therapist to provide supervision for occupational therapy students who will facilitate each group

meeting. In addition, the program will also have a registered dietician or dietician student facilitate the nutrition session.

Handouts and resources are provided to facilitate the group; however depending on the specific participants modifications may be needed. Group facilitators will need to update materials as new research is available. It is recommended that the facilitator of each group session be well prepared and knowledgeable with the session topic and information. It is imperative for health care professionals working with adults who are overweight or obese to be self-aware of bias towards weight and obesity to be able to treat individuals effectively with a trusting and healthy therapeutic relationship (Scaffa, Reitz, & Pizzi, 2010).

In order to determine the effectiveness of the program, baseline measures are suggested. These measures include BMI, waist circumference, Obesity Related Well-Being (ORWELL 97), Occupational Questionnaire (OQ), and Daily Food Habits Questionnaire**.** Based on participant feedback individuals sessions will be modified to increase overall satisfaction with the program.

This program could be adapted for other populations such as pediatrics, geriatrics, and college students. It is designed to be used with individuals living in independent housing in the community. It is encouraged for occupational therapy clinicians to use this project or to develop programs of their own using this project as a guide intervention with clients with obesity. Occupational therapy has a role in the prevention and treatment of obesity. It is critical that outcome studies be developed in order to determine the effectiveness of occupation based interventions.

REFERENCES

America on the Move Foundation: Steps to a Healthier Life. (2009a). *Get active: Activity choices.* Retrieved September 25, 2009, from http://aom3.americaonthemove.org/get-active/activity-choices.aspx

America on the Move Foundation: Steps to a Healthier Life. (2009b). *Home page: Get active.* Retrieved September 25, 2009, from http://aom3.americaonthemove.org/get-active.aspx

American Occupational Therapy Association. (2007). Obesity and occupational therapy (position paper). *The American Journal of Occupational Therapy,* 701-703.

American Occupational Therapy Association. (2008). Occupational therapy framework: Domain and process. *American Journal of Occupational Therapy, 62*(6), 625-683.

Ayala, G. X., Rogers, M., Arredondo, E. M., Campbell, N. R., Baquero, B., Duerksen, S. C., & Elder, J. P. (2008). Away-from-home food intake and risk for obesity: Examining the influence of context. *Behavior and Psychology, 16*(5), 1002-1008.

Banwell, C., Lim, L., Seubsman, S.A., Bain, C., Dixson, J., & Sleigh, A. (2009). BMI and health-related behaviors in a national cohort of 87,134 Thai open university students. *Journal of Epidemiology Community Health.* doi: 10.1136/jech.2008.080820

Bastable, S. B. (2006). *Essentials of patient education*. Sudbury, MA: Jones and Bartlett Publishers.

Bendixen, H., Holst, C., Sørensen, T. I. A., Raben, A., Bartels, E. M., & Astrup, A. (2004). Major increase in prevalence of overweight and obesity between 1987 and 2001 among Danish adults. *Obesity Research, 12*(9), 1464-1472.

Bergstrom, I., Lombardo, C., & Brinck, J. (2009). Physical training decreases waist circumference in postmenopausal borderline overweight women. *Acta Obstetricia Et Gynecologica Scandinavica, 88*(3), 308-313. doi:10.1080/00016340802695942

Bernstein, M. S., Costanza, M. C., & Morabia, A. (2004). Association of physical activity intensity levels with overweight and obesity in a population-based sample of adults. *Preventive Medicine, 38*(1), 94-104. doi:10.1016/j.ypmed.2003.09.032

Blaine, B. (2009). Does depression cause obesity?: A meta-analysis of longitudinal studies of depress and weight control. *Journal of Health Psychology,* 13, 1190-1197. doi: 10.1177/1359105308095977

Blanchard, S. A. (2006). AOTA's statement on obesity. *The American Journal of Occupational Therapy, 60*(6), 680.

Bodea, T.D., Garrow, L.A., Meyer, M.D., Ross, C.L. (2009). Socio-demographic and built environment influences on the odds of being overweight or obese: The Atlanta experience. *Transportation Research Part A,* 43, 430-444.

Bouchard, C. (2007). The biological predisposition to obesity: Beyond the thrifty genotype scenario *International Journal of Obesity (2005), 31*(9), 1337-1339. doi:10.1038/sj.ijo.0803610

Boutelle, K., Neumark-Sztainer, D., Story, M., & Resnick, M. (2002). Weight control behaviors among obese, overweight, and nonoverweight adolescents. *Journal of Pediatric Psychology, 27*(6), 531-540. doi:10.1093/jpepsy/27.6.531

Brawer, R., Brisbon, N., & Plumb, J. (2009). Obesity and cancer. *Primary Care Clinical Office Practitioner 36*, 509-531.

Centers for Disease Control and Prevention. (2006). *Research to Practice Series No. 2: Portion Size*. Atlanta, GA: Division of Nutrition and Physical Activity.

Centers for Disease Control and Prevention. (2008). *Physical activity for everyone: Physical activity and health.* Retrieved September 25, 2009, from http://www.cdc.gov/physicalactivity/everyone/health/index.html

Centers for Disease Control and Prevention. (2009a). *Healthy weight: Assessing your weight.* Retrieved September 28, 2009, from http://www.cdc.gov/healthyweight/assessing/index.html

Centers for Disease Control and Prevention. (2009b). *Overweight and obesity: Causes and consequences.* Retrieved September 28, 2009, from http://www.cdc.gov/obesity/causes/index.html

Centers for Disease Control and Prevention. (2009c). *Overweight and obesity: Defining overweight and obesity.* Retrieved September 28, 2009, from http://www.cdc.gov/obesity/defining.html

Centers for Disease Control and Prevention. (2009d). *Overweight and obesity: Health consequences.* Retrieved September 28, 2009, from http://www.cdc.gov/obesity/causes/health.html

Centers for Disease Control and Prevention (2009e). *Overweight and obesity: U.S. obesity trends.* Retrieved November 23, 2009, from http://www.cdc.gov/obesity/data/trends.html

Centers for Disease Control and Prevention. (2009f). *Physical activity for everyone: Adding physical activity to your life.* Retrieved September 25, 2009, from http://www.cdc.gov/physicalactivity/everyone/getactive/index.html

Centers for Disease Control and Prevention. (2009g). *Physical activity for everyone: How much physical activity do adults need?* Retrieved September 25, 2009, from http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html

Centers for Disease Control and Prevention. (2009h). *Public health genomics: Genomics research.* Retrieved September 25, 2009, from http://www.cdc.gov/genomics/resources/diseases/obesity/obesedit.htm

Clark, F., Reingold, F. S., & Salles-Jordan, K. (2007). Obesity and occupational therapy (position paper). *The American Journal of Occupational Therapy, 61*, 701-703.

Clarke, K. K., Freeland-Graves, J., Klohe-Lehman, D. M., & Bohman, T. M. (2007). Predictors of weight loss in low-income mothers of young children. *Journal of American Dietetic Association, 107*(7), 1146-1154. doi:10.1016/j.jada.2007.04.016

Coakley, E. H., Rimm, E. B., Colditz, G., Kawachi, I., & Willett, W. (1998). Predictors of weight change in men: Results from the health professionals follow-up study. *International Journal of Obesity, 22*, 89-96.

Colquitt, J.L., Picot, J., Loveman, E., Clegg, A.J. (2009). Surgery for obesity. *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.: CD003641. DOI: 10.1002/14651858.CD003641.pub3.

De Vet, E., Oenema, A., Sheeran, P., & Brug, J. (2009). Should implementation intentions interventions be implemented in obesity prevention: The impact of if-then plans on daily physical activity in dutch adults. *International Journal of Behavioral Nutrition and Physical Activity, 6*(11).

De Wit, L. M., van Straten, A., van Herten, M., Penninx, B. W., & Cuijpers, P. (2009). Depression and body mass index, a u-shaped association. *BMC Public Health, 9*, 14. doi:10.1186/1471-2458-9-14

Department of Health and Human Services. (2006). *Facts about healthy weight.* (DHHS Publication No. 06-5830). Washington, DC: U.S. Government Printing Office.

Digenio, A. G., Mancuso, J. P., Gerber, R. A., & Dvorak, R. V. (2009). Comparison of methods for delivering a lifestyle modification program for obese patients: A randomized trial. *Annals for Internal Medicine, 150*, 255-262.

Ferraro, K.F., Su, Y., Gretebeck, R.J., Black, D.R., & Badylak, S.F. (2002). Body mass index and disability in adulthood: A 20-year panel study. *American Journal of Public Health.* 92(*5*), 834-840.

Fernandes, M.A.P., Atallah, Á.N., Soares, B., Saconato, H., Guimarães, S.M., Matos, D., . . . & Richter, B. (2007) Intragastric balloon for obesity. *Cochrane Database of Systematic Reviews*, Issue 1. Art. No.: CD004931. doi: 10.1002/14651858.CD004931.pub2.

Ghroubi, S., Elleuch, H., Chikh, T., Kaffel, N., Abid, M., & Elleuch, M. H. (2009). Physical training combined with dietary measures in the treatment of adult obesity: A comparison of two protocols. *Annals of Physical and Rehabilitation Medicine,* , 394-413. doi:10.1016/j.rehab.2008.12.017

Griffin, J., McKenna, K., & Tooth, L. (2006). Discrepancy between older clients' ability to read and comprehend and the reading level of written educational materials used by occupational therapists. *American Journal of Occupational Therapy, 60,* 70-80.

Gruber, K. J., & Haldeman, L. A. (2009). Using the family to combat childhood and adult obesity. *Preventing Chronic Disease, 6*(3), 1-10. Retrieved from http://www.cdc.gov/pcd/issues/2009/jul/08_0191.htm. Accessed August 26, 2009.

Harvie, M., Howell, A., Vierkant, R.A., Kumar, N., Cerhan, J.R., Keleman, L.E., … Sellers, T.A. (2005). Association of gain and loss of weight before and after menopause with risk of postmenopausal breast cancer in the Iowa women's health study. *Cancer Epidemiology, Biomarkers & Prevention,* 14(*3*), 656-661.

Harvey, E.L., Glenny, A.M., Kirk, S.F.L., & Summerbell, C.D. (2001). Improving health professionals' management in the organisation of care for overweight and obese people. *Conchrane Database of Systematic Reviews*, Issue 2. Art. No.: CD000984. doi: 10.1002/14651858.CD000984.

Heading, G. (2008). Rural obesity, healthy weight and perceptions of risk: Struggles, strategies and motivation for change. *Australian Journal of Rural Health, 16*, 86-91.

Health Partners, Inc. (2009). 10,000 steps program. Retrieved from http://www.10k-steps.com/content/pedometer.aspx?owt=1

Hill, R. K., Thompson, J. W., Shaw, J. L., Pinidiya, S. D., & Card-Higginson, P. (2009). Self-reported health risks linked to health plan cost and age group. *American Journal of Preventive Medicine, 36*(6), 468-474. doi:10.1016/j.amepre.2009.01.034

International Food Information Council Foundation. (2006). *MyPyramid print materials: Your personal path to health: Steps to a healthier you!* Retrieved September 25, 2009, from http://www.mypyramid.gov/tips_resources/printmaterials.html

Jallinoja, P., Absetz, P., Kuronen, R., Nissinen, A., Talja, M., Uutela, A., & Patja, K. (2007). The dilemma of patient responsibility for lifestyle change: Perceptions among primary care physicians and nurses. *Scandinavian Jouranl of Primary Health Care, 25*, 244-249. doi:10.1080

Jia, H., & Lubetkin, E.I. (2005). The impact of obesity on health-related quality-of-life in the general adult U.S. population. *Journal of Public Health,* Retrieved from *Journal of Public Health Advance Access.* doi: 10.1093/pubmed/fdi025.

Kielhofner, G. (2009). The model of human occupation. Conceptual foundations of occupational therapy practice (4th ed., pp. 147-174). Philadelphia, PA: F.A. Davis.

Kamioka, H., Nakamura, Y., Okada, S., Kitayuguchi, J., Kamada, M., Honda, T., . . . & Mutoh, Y. (2009). Effectiveness of comprehensive health education combining lifestyle education and hot spa bathing for male white-collar employees: A randomized controlled trial with 1-year follow-up. *Japan Epidemiological Association.* 19*(5)*:219-230. doi:10.2188/jea.JE20081020

Laroche, H. H., Hofer, T. P., & Davis, M. M. (2007). Adult fat intake associated with the presence of children in households: Findings from NHANES III. *Journal of the American Board of Family Medicine : JABFM, 20*(1), 9-15. doi:10.3122/jabfm.2007.01.060085

Lavie, C. J., Milani, R. V., & Ventura, H. O. (2009). Obesity and cardiovascular disease: Risk factor, paradox, and impact of weight loss. *Journal of the American College of Cardiology, 53*(21), 1925-1932. doi:10.1016/j.jacc.2008.12.068

Loureiro, M. L., & Nayga, R. M. (2006). Obesity, weight loss, and physician's advice. *Social Science and Medicine, 62*(10), 2458-2468. doi:10.1016/j.socscimed.2005.11.011

Lurie, N., Dubowitz, T. (2007). Health disparities and access to care. *Journal of American Medical Association,* 297(*10*), 1118, 1121.

Lutfiyya, M. N., Nika, B., Ng, L., Tragos, C., Wom, R., & Lipsky, M. S. (2008). Primary prevention of overweight and obesity: An analysis of national survey data. *Journal of General and Internal Medicine, 23*(6), 821-823. doi:10.1007

Ma, J., Xiao, L., & Stafford, R. S. (2009). Adult obesity and office-based quality of care in the United States. *Obesity, 17*(5), 1077-1085. doi:10.1038

Mannucci, E., Ricca, V., Bariciulli, E., Di Bernardo, M., Travaglini, R., Cabras, P.L., & Rotella C.M. (1999). Quality of life and overweight: The obesity related well-being (ORWELL 97) questionnaire. *Addictive Behaviors,* 24(*3*), 345-357. Retrieved April 6 from http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VC9-3WG35PP-4&_user=10&_coverDate=05%2F06%2F1999&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=3932a79ecccadebf2323ac4d20caf4a3

McCrory, M.A., Fuss, P.J., Saltzman, E., & Roberts, S.B. (2000**.** Dietary determinants of energy intake and weight regulation in healthy adults**.** *American Society for Nutritional Services,* 130(*2*), 276-279.

Mosley, L. J., Jedlicka, J. S., Lequieu, E., & Taylor, F. D. (2008). Obesity and occupational therapy practice: Present and potential practice trends. *OT Practice,* , 8-15.

Morland, K. B., & Evenson, K. R. (2009). Obesity prevalence and the local food environment. *Health & Place, 15*(2), 491-495. doi:10.1016/j.healthplace.2008.09.004

National Center for Health Statistics. (2009). *Health, United States, 2008*. Hyattsville, MD: Retrieved September 25, 2009, from http://www.cdc.gov/nchs/data/hus/hus08.pdf#075

National Institutes of Health. (1998). In National Heart Lung and Blood Institute (Ed.), *Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: The evidence report.* U.S. Department of Health and Human Services.

Obesity Society, The. (2009). *Obesity, bias, and stigmatization.* Retrieved October 1, 2009, from http://www.obesity.org/information/weight_bias.asp

Padwal, R.S., Rucker, D., Li, S.K., Curioni, C., & Lau, D.C.W. (2003). Long-term pharmacotherapy for obesity and overweight. *Cochrane Database of Systematic Reviews* , Issue 4. Art. No.: CD004094. doi: 10.1002/14651858.CD004094.pub2.

Petit, L., Azad, N., Byszewski, A., Sarazan, F.F.A., & Power, B. (2003). Non-pharmacological management of primary and secondary insomnia among older people: A review of assessment tools and treatments. *Age and Aging,* 32, 19-25.

Plodkowski, R. A., & Krenkel, J. (2005). Combined treatment for obesity and the metabolic syndrome. *Journal of American Dietetic Association, 105*(5), S124-S130. doi:10.1016/j.jada.2005.02.032

Potter, M.B., Vu, J.D., Croughan-Minihane, M. (2001). Weight management: What patients want from their primary care physicians? *Journal of Family Practice,* 50, 505-12.

Porth, C. M. (2005). Alterations in nutritional status. *Pathophysiology: Concepts of altered health status* (7th ed., pp. 217-238). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Puhl, R. M., Andreyeva, T., & Brownell, K. D. (2008). Perceptions of weight discrimination: Prevalence and comparison to race and gender discrimination in America. *International Journal of Obesity, 32*, 992-1000.

Riegar, E., Dean, H. Y., Steinbeck, K. S., Caterson, I. D., & Manson, E. (2009). The use of motivational enhancement strategies for the maintenance of weight loss among obese individuals: A preliminary investigation. *Diabetes, Obesity, and Metabolism, 11*, 637-640. doi:10.1111/j.1463-1326.2008.01027

Rohrer, J. E., Vickers-Douglas, K. S., & Stroebel, R. J. (2009). Uncontrolled eating and obesity in adult primary care patients. *Obesity Research and Clinical Practice, 3*(2), 115-121.

Sallis, J. F., & Glanz, K. (2009). Physical activity and food environments: Solutions to the obesity epidemic. *Milbank Quarterly, 87*(1), 123-154.

Scaffa, M. E., Reitz, S. M., & Pizzi, M. A. (2010). Weight management and obesity reduction. In C. Fratantoro, & P. Waltner (Eds.), *Occupational therapy in the promotion of health and wellness* (pp. 253-279). Philadelphia, PA: F.A. Davis.

Shaw, K.A., Gennat, H.C., O'Rourke, P., & Del Mar, C. (2006). Exercise for overweight or obesity. *Cochrane Database of Systematic Reviews, 4,*1-110. Art. No.: CD003817. doi: 10.1002/14651858.CD003817.pub3.

Smith, N.R., Kielhofner, G., & Watts, J.H. (1986). The relationships between volition, activity pattern, and life satisfaction in the elderly. American Journal of Occupational Therapy, 40, 278-283.

United States Department of Agriculture. (2009, September 17). *Mypyramid.gov: steps to a healthier you*. Retrieved from http://www.mypyramid.gov/index.html

U.S. Department of Health and Human Services (2001). *The Surgeon General's call to action to prevent and decrease overweight and obesity 2001*. (DHHS Publication). Rockville, MD: U.S. Government Printing Office.

Vollmer, W. M., Sacks, F. M., & Svetkey, L. P. (2001). New insights into the effects on blood pressure of diets low in salt and high in fruits and vegetables and low-fat

dairy products. *Current Controlled Trials in Cardiovascular Medicine, 2*(2), 71-74.

Walter, S., Kunst, A., Mackenbach, J., Hofman, A., & Tiemeier, H. (2009). Mortality and disability: The effect of overweight and obesity. *International Journal of Obesity.*

Westerterp, K. R., & Plasqui, G. (2009). Physically active lifestyle does not decrease the risk of fattening. *PloS One, 4*(3), e4745. doi:10.1371/journal.pone.0004745

Wigg, Dammann, K., & Smith, C. (2009). Factors affecting low-income women's food choices and the perceived impact of dietary intake and socioeconomic status on their health and weight. *Journal of Nutrition Education and Behavior, 41*(4), 242-253.

Wikstrom, K., Peltonen, M., Eriksson, J. G., Aunola, S., Ilanne-Parikka, P., Keinanen-Kiukaanniemi, S., Uusitupa, M., Tuomilehto, J., & Lindstrom, J. (2009). Educational attainment and effectiveness of lifestyle intervention in the finnish diabetes prevention study. *Diabetes Research and Clinical Practice,* , e1-e5. doi:10.1016

World Health Organization. (2009). *Obesity and overweight.* Retrieved December 3, 2009, from http://www.who.int/mediacentre/factsheets/fs311/en/index.html

Young, R.L., & Nestle, M. (2002). The contribution of expanding portion sizes to the US obesity epidemic. *American Journal of Public Health,* 92(2), 246-249.

Step It Up
To A
Better You

A Lifestyle Modification Program
For Community Dwelling Adults with Obesity

University of North Dakota
Ashlee M. Lee, MOTS, Julie A. Stolt, MOTS, and Janet S. Jedlicka, PhD, OTR/L

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Step It Up to A Better You:

Lifestyle Modification Program for Community-Dwelling Adults with Obesity

Introduction

Obesity is an epidemic in the United States (U.S) and the world. Globally there are more than 1 billion overweight adults, including 400 million adults who are obese (World Health Organization, [WHO], 2009). Approximately 67 percent of the total U.S. population is considered overweight or obese (National Center for Health Statistics [NCHS], 2009). More specifically North Dakota has a four percent higher average of overweight and obese adults than the nation as a whole (Centers for Disease Control, [CDC], 2009).

Based on an extensive review of literature and an informal needs assessment conducted with a community housing program in a small Midwest City, there is a need for additional resources to provide community dwelling adults with education and support in promoting a healthier lifestyle. Current occupational therapy literature regarding obesity is minimal. The majority of the literature describes the potential role of occupational therapy in treatment of the overweight and obese adult population. There is one identified program that portrays the role of occupational therapy intervention with adults who are experiencing obesity at University of South California Berkeley's [USCB] occupational therapy program ("Weight Management Program," n.d.). USCB has an occupational therapy clinic providing services to adults with obesity incorporating a 16-week outpatient program called Lifestyle Redesign®. There is a need for outcome measures to document the effectiveness of occupational therapy intervention with adults diagnosed with obesity.

The purpose of this product is to provide a lifestyle modification program for community-dwelling adults who are overweight or obese with limited financial and other resources. The following provides an overview of the program, specific intervention sessions, and outcome measures of the program. Included is a description of the theoretical model and frame of reference as well as how it served as a guide the process of developing the program. The program is designed to be implemented by occupational therapy students with supervision from a registered occupational therapist, but it could be adapted to other settings and populations.

Description of the Lifestyle Modification Program

The program includes twelve, one-hour group sessions that provide education, resources, and materials. The sessions will take place at a local housing facility at a time that is determined by the program leaders and participants. The group will consist of a maximum of fifteen participants.

The sessions are structured using Cole's (2005) 7-step process for facilitating groups. Each session includes objectives, a warm-up activity, a structured activity to meet the objectives of the group, structured questions for sharing and processing the information, and a summary to restate the objectives of the group. Each session includes an outline with structured activities, questions for the facilitation, and handouts for participants. An estimation of the overall cost of the program is located on page fifteen.

The educational sessions are preparatory, purposeful, and occupation-based activities; the sessions are designed to modify one's habits within the individual's previously established roles and routines. Preparatory activities are

used to prepare the individual for performance in occupation *(*American Occupational Therapy Association, [AOTA*], Framework,* 2008). These activities include stretching, positive self-talk, and rhythmic breathing. Purposeful activities are used to develop specific skills for performance in occupation (AOTA *Framework*, 2008). Purposeful activities include group activities such as making healthy meals, filling out worksheets, and completing homework assignments. Occupation-based activities are meaningful activities an individual chooses to participate in daily life (AOTA *Framework*, 2008). A few examples include walking, making healthy meals at home, choosing healthy food items at the grocery store while shopping, and completing a sleep hygiene program.

Psychosocial well-being and quality of life are addressed in the program by focusing on motivation and self-control through goal setting, readings from *Chicken Soup for the Dieter's Soul* (Canfield, Hansen, & Peluso, 2006) and *Chicken Soup to Inspire the Body and Soul* (Canfield, Hansen, Millman, & Wentworth, 2003), encouragement, identifying support systems, and identifying and developing healthy coping strategies. Resources and materials include handouts, brochures, use of equipment such as a bariatric scale, pedometers, and daily food and activity logs. In addition, a dietician or dietitian student will facilitate one session to provide education on specific healthy and nutritious food choices.

Purpose of Program

The main goal of the lifestyle modification program for adults with obesity is to gain a healthy lifestyle with an enhanced quality of life and ability to participate in one's meaningful daily activities. Another intention of the lifestyle

modification program is to build a sense of community. The sense of community will be established through a supportive and safe atmosphere that provides individuals with the opportunity to share personal stories and encourage each other. The objectives for establishing a healthy lifestyle are to gain knowledge of benefits of a healthy lifestyle, have increased physical activities through occupation, and improved nutrition choices. The objectives for an increased quality of life include gaining increased motivation, body image and self-esteem, develop healthy coping strategies, and improved quality of sleep. You can find the program's goals and objectives starting on page sixteen.

The lifestyle modification program is designed to benefit community-dwelling adults with overweight and obesity and to document outcomes of occupational therapy intervention. Currently, the proposed health care reform is establishing a plan to implement prevention and wellness into health care (Obama, n.d.). The future scope of practice for occupational therapists may extend into providing services for community-dwelling individuals in the area of prevention of obesity and wellness. According to AOTA (2007), occupational therapists' role in prevention and wellness for individuals with obesity is defined as implementing and utilizing a holistic perspective employing the use of occupations and daily activities to manage obesity, while decreasing mortality and developing an improved quality of life. Occupational therapists provide interventions that are meaningful, motivating and promote participation in one's daily life activities through modifying one's habits, roles, and daily routines, remediation/restoration, adaptation/compensation and maintenance of a healthy weight and lifestyle (AOTA, 2007).

Model and Theoretical Frames of Reference

The model chosen to guide the development of the lifestyle modification program is Model of Human Occupation (MOHO). MOHO is described as having an emphasis on client-centered practice that focuses on an individual's participation in life occupations (Kielhofner, 2009). This model has three main concepts; these consist of volition, habituation, and performance capacity. Kielhofner describes volition as the individual's motivation to complete tasks and daily activities. Habituation is comprised of habits, roles, and routines (Kielhofner). Habits are automatic ways of doing; they are incorporated into one's life roles and they influence individual's routines. Kielhofner describes roles as a way of establishing an identity. For example, one could identify as being a student, a professor, a mother, a father, a construction worker, and many more. Roles have societal expectations that shape behavior, which guides the way one acts in relation to others and the environment (Kielhofner).

Performance capacity is the third main concept within MOHO; this includes physical and cognitive skills of an individual that are required to complete a task; and how those skills are used during task completion (Kielhofner, 2009). Physical skills are comprised of musculoskeletal, neurological, cardiopulmonary and other body systems, whereas cognitive skills are memory, motor control, and sensory integration. An individual's skill level determines his or her participation in an activity (Kielhofner). The model also addresses the impact environment has on the individual's ability to perform a task. Kielhofner describes environment as encompassing physical, social,

cultural, economic, and political contexts that influence one's motivation and performance in occupation.

The Model of Human Occupation provides the foundation of the lifestyle modification program for adults with obesity living in the community who may have limited financial and other resources. It encompasses the core of an individual not only the objective measures of obesity. The model incorporates the ideals of client-centeredness and addresses factors that may inhibit occupational performance (Kielhofner, 2009).

Research demonstrates that individuals with obesity have decreased motivation to engage in physical activities (Heading, 2008). MOHO addresses the concept of volition (motivation) by identifying the term as the desire to participate in activities. Kielhofner (2009) describes the desire to participate in activities through personal interests, values, and personal causation. Personal interests and values drive one's choices of activities while one's personal causation is the perception of one's abilities to perform and participate in meaningful activities (Kielhofner). If an individual has limited interests, values, and a negative perception of one's abilities, one will lack motivation to participate in activities. The lifestyle modification program addresses motivation through educational sessions that focus on motivation, goal setting, developing a support system and a sense of community, and utilizing food and activity logs. Increased daily physical activities are encouraged through meaningful occupations and leisure activities to increase individual motivation.

Individuals with obesity frequently demonstrate unhealthy habits such as a lack of participation in physical activities (Banwell et al., 2009; Westerterp &

Plasqui, 2009), selection of unhealthy food choices (Scaffa, Reitz, & Pizzi, 2010), and psychosocial implications. These psychosocial factors include overeating (Scaffa et al.), lack of self-control (Porth, 2005; Rohrer, Vickers-Douglas, & Stroebel, 2009; Scaffa et al.), challenges with motivation (Heading, 2008), feelings of inferiority, and depression (Puhl, Andreyeva, & Brownell, 2008). The lifestyle modification program focuses on individual's unhealthy habits by sessions that assist in identifying healthy habits versus unhealthy habits, gaining skills to maintain healthy habits, identifying negative self-talk and beliefs, and developing strategies to cope in a healthy way.

Individual roles and routines can also affect the development of obesity. There is an increased occurrence of obesity in individuals with sedentary office jobs (Banwell et al., 2009; Kamioka et al., 2009), individuals with less education (Wigg, Dammann, & Smith, 2009), individuals who eat foods away-from-home more frequently (Ayala et al., 2008; CDC, 2006; National Center for Health Statistics, 2009; WHO, 2006), single mothers (Wigg, et al.), and parents with young children at home (Laroche, Hofer, & Davis, 2007). The twelve-week program addresses roles and routines by providing physical activity and dietary tips to fit into one's daily life, roles, and routines.

An individual's environment is taken into consideration using MOHO (Kielhofner, 2009). Certain environmental factors are found to influence the progression of obesity. Urban or rural areas (Banwell et. al, 2009; Bodea, Garrow, Meyer, & Ross, 2009; Wigg, Dammann, & Smith, 2009), communities with a large quantity of people with low socioeconomic status (National Center for Health Statistics; Wigg et al.), contexts that have a higher density of fast-food

restaurants, and communities that have decreased accessibility to super markets are recognized as increasing the probability of adult obesity (Morland & Evenson, 2009; Wigg, et al.). However, obesity is less likely to occur in environments that have more established supports for participation in physical activity, which include safe neighborhoods, large amounts of physical space, family support, decreased traffic, access to healthy foods, and access to recreational facilities (Sallis & Glanz, 2009). The lifestyle modification program considers environment through the exploration of available resources within the participants' community.

The cognitive-behavioral theoretical frame of reference is used in the implementation of the lifestyle modification program (Bruce & Borg, 2002). This program addresses psychosocial factors commonly experienced by adults with obesity. Research identifies individuals with obesity often times use food as a mode of comfort or reward, an unhealthy coping strategy, and to avoid dealing with emotions (Porth, 2005). Cognitive Behavioral Therapy (CBT) combined with diet and physical activity was found to have increased weight loss success compared to diet and exercise alone (Shaw et al., 2005). The program incorporates the use of homework using daily physical activity and food logs. The program's participants use these logs to document daily physical activity, food choices and habits, and goal setting. This provides feedback that will expectantly increase motivation, self-esteem and confidence.

CBT is used as an intervention strategy to increase one's knowledge and problem solving skills (Bruce & Borg, 2002). Problem solving has been a need for individuals with obesity (Wigg, Dammann, & Smith, 2009). CBT assumes that

individual's cognitive processes influence their behavior. For example, if an individual has negative perceptions and thought patterns about his/her ability to complete a task such as eating healthy or participating in physical activity, [describing Kielhofner's term "personal causation" from MOHO, (2009)] then the individual will not complete or participate in that task, therefore affecting his/her behavior. The use of CBT aids in identifying negative thought patterns and perceptions and transforms these into positive thoughts and perceptions. The goal is to increase one's participation in meaningful activities, as a result increasing one's quality of life. The twelve-week program emphasizes adding meaningful physical activities to daily life. It is also important for the individual to experience challenges with success in this frame of reference to become self-sufficient. CBT promotes the development of self-control, healthy coping strategies, and increased self-esteem and self-efficacy (Bruce & Borg).

Methods

Inclusion criteria for the lifestyle modification program include adults who are overweight or obese with a BMI greater than twenty-five. Participants of the program have to be affiliated with the community-housing program. Individuals are asked to commit to the full twelve-week program, consistently attend weekly sessions, demonstrate a moderate level of self-motivation, and a desire to learn. Program participants will be encouraged to get a physician's release before starting the program.

Measures

Based on MOHO and the objectives of the program, the following assessments will be used for the program: Occupational Questionnaire (OQ)

developed from the concepts of MOHO model, Obesity Related quality of life assessment (ORWELL 97), BMI, waist circumference, recorded number of steps via pedometer, use of daily food and activity logs, and Health Partners 10,000 steps program activity conversion chart (Health Partners, 2009). Each participant will be asked to complete all assessments prior to beginning and at the conclusion of the twelve-week program.

The Occupational Questionnaire is an occupational therapy specific assessment based on the MOHO model (Smith, Kielhofner, & Watts, 1986). It is an assessment that can be completed as a self-report or through an interview. It measures time spent in activity, type of activity, individual's interest in the activity, importance of the activity, and self-report perception of how well one completes the activity. The OQ is found to have high reliability for all measured factors and even greater validity (Smith et al., 1986). The OQ is included in this document and can be located in the Appendix.

The Obesity Related Well-Being (ORWELL 97) questionnaire will be the assessment used to measure quality of life factors that encompass health and well-being incorporating physical and mental health (Mannucci et al., 1999). The assessment measures quality of life in the areas of physical, role, and social functioning, as well as mental health related to barriers associated with being obese. These include body image, self-esteem, and motivation (Mannucci et al.). The ORWELL 97 is a measure that can be applied to a variety of obese individuals and has been shown to have internal consistency and test-retest reliability (Mannucci et al.). The ORWELL 97 can be found at

http://www.sciencedirect.com. Please view the reference list for the complete URL address.

The authors of the program developed a Daily Food Habits Questionnaire. The questionnaire was created to record current food choices and habits of each program participant. The questionnaire will be used to document changes in food choices and habits at the conclusion of the program. A client satisfaction survey for program evaluation will be administered to the program members at the concluding session of the program to identify ways to modify and enhance the program. The Daily Food Habits Questionnaire can be found in the Appendix.

Anthropometric measurements, including weight, BMI, and waist circumference will be recorded. Group members will have their weight recorded on a bariatric scale and height will be determined with the use of a body tape measure. BMI will be determined using a BMI Index chart (National Institute of Health [NIH], 1998). Waist circumference is correlated with total body fat content, co-morbidities, and health risks. A body tape measure will be used above the hips aligned with the umbilicus when measuring group members' waist circumference. BMI and waist circumference measurements are used to demonstrate a decrease in weight.

The use of a pedometer is to measure the number of steps taken each week. Group participants will be asked to document the number of steps taken each week. Each week the group participant's will record the type of physical activities that are completed. The Health Partners (2009) 10,000 Steps Program activity conversion chart will be used to convert the type of activity into steps and can be found at http://www.10k-steps.com/content/pedometer.aspx?owt=1.

Each program member will be given a pedometer to wear during participation of physical activities throughout the duration of the program.

Food and physical activity logs will also be provided to each group member. Each group member will be expected to complete these forms each day to keep track of food choices, length and intensity of physical activity. In addition, participants will be asked to identify feelings, triggers, and problems or concerns while striving to make healthier choices.

Effectiveness of *Step It Up To a Better You* twelve-week lifestyle modification program will be evaluated by comparing pre and post program scores on the identified measures. Examples of the assessment tools for the program are located at the conclusion of the manual placed within the Appendix.

Supplies and Cost

Program Resources	Price Per Unit	Total
Scale	1 @ $1,200.00	$1,200.00
Pedometers	15 X 20 @ $300.00	$300.00
Body Fat Analyzer	1 @ $200.00	$200.00
Waist Circumference Measure	1 @ $10.00	$10.00
Chicken Soup for the Dieter's Soul	2 @ $10.00	$20.00
Chicken Soup to Inspire the Body & Soul	2 @ $10.00	$20.00
Participant Handouts – color		
MAP plan	12 X 15 @ $.50	$90.00
Community Resource Guide	15 X 15 @ $.50	$112.50
Completion Certificate	1 X 15 @ $.50	$7.50
Participant Handouts – B/W		
Activity Log	13 X 15 @ $.06	$11.70
Food Log	13 X 15 @ $.06	$11.70
Goal Log	3 X 15 @ $.06	$2.70
Other Session Handouts	10 X 15 @ $.06	$9.00
Physical Activity session	5 X 15 @ $.06	$4.50
Leader Resources		
Pens	30 @ $4.00	$4.00
Pencils	30 @ $8.00	$8.00
Markers	2 packages @ $15.00	$15.00
Colored Pencils	2 packages @ $15.00	$15.00
Crayons	2 packages @ $10.00	$10.00
Colored Construction Paper	3 packages @ $10.00	$10.00
Glue	15 @ $1.00	$15.00
Magazines	Free	
Session Handouts	2 x 100 @ .06	$12.00
Food Items		
Chicken Soup Ingredients	$50.00	$50.00
Yogurt Dessert Ingredients	$25.00	$25.00
Healthy Snacks / Beverages	$25.00	$25.00
Miscellaneous		
Pots and Pans	Provided by leader	
Dish Rag, Towels	Provided by leader	
Soap	Provided by facility	
Mixing bowl	Provided by leader	
Dinner Bowls (can be toss-able)	Provided by leader	
Utensils (can be plastic)	Provided by leader	
Cutting Board / Knives	Provided by leader	
Kitchen	At facility	
Estimated Total		$2,300.00

Program Goals, Activities, and Objectives

Gain a healthy lifestyle with an enhanced quality of life and ability to participate in one's meaningful daily activities.

Enhance Quality of Life

Establish a Healthy Lifestyle

Gaining increased motivation, body image and self-esteem.

Develop healthy coping strategies

Establish an improved quality of sleep.

Gain knowledge and benefits of a healthy lifestyle

Have increased physical activities through occupation

Improve nutrition choices

Enhanced Quality of Life

Participants will be able to:

Session 2: Motivation and You

- Identify a variety of motivational factors.
- Distinguish between factors that facilitate or impede motivation in participation in daily activities and healthy eating habits.
- Describe how the lifestyle modification program can enable success and promote wellness through motivational factors

Session 6: Chicken Soup for the Soul

- Share how motivation can positively or negatively affect participation in daily activities.
- Demonstrate inspiration to continue the program through: Identifing ways to achieve positive self-esteem; Sharing how self-esteem influences motivation; Identifing ways to achieve a positive body image, and Sharing how body image influences motivation

Session 8: Tips for a Quality Sleep

- Describe a sleep hygiene schedule and tips for quality sleep.
- Identify relaxation techniques and ways to utilize them for an improved quality sleep

Session 9: Developing Coping Strategies

- Distinguish between healthy and unhealthy coping strategies.
- Identify how to implement healthy coping strategies

Sessions 10 & 11: Developing a Healthy Lifestyle Maintenance Plan

- Identify the importance and benefits of maintain a healthy lifestyle
- Identify the importance and benefits of having a maintenance plan in place.
- Describe how to continue a healthy lifestyle maintenance plan.

Session 12: Conclusion Ceremony

- Enhanced quality of life
- Increased physical activity
- Increased motivation
- Increased healthy nutrition choices
- Decreased weight

Healthy Lifestyle

Participants will be able to:

Session 1: Introduction

- Describe the purpose of the lifestyle modification program
- Identify the expectations and benefits of the lifestyle modification program
- Utilize the equipment provided (scale, pedometer, worksheets).

Session 3: Adding Meaningful Physical Activity to Your Day

- Identify the benefits of physical activity
- Identify healthy and unhealthy activity habits
- Identify barriers and solutions to participating in physical activities
- Identify ways to increase physical activity in daily life
- Identify ways and routines to incorporate physical activity into daily life utilizing existing roles
- Identify safe ways to participate in physical activity and when to STOP activity
- Identify moderate phsyical activities
- Identify the importance and benefits of a support system

Session 4: Eating Right, Starting Today

- Identify healthy foods
- Demonstrate how to manage calories
- Choose foods and beverages with a moderate amount of calories
- Read food labels
- Identify healthy portion sizes

Session 5: Healthy Meal Preparation on a Budget

- Identify healthy and thrifty ways to prepare meals.
- Identify ways to plan meals on a budget
- Identify ways to grocery shop for healthy food items with a budget.

Session 7: Explore Your Community

- Share at least 5 resources that are available for physical activity and managing a healthy lifestyle in their community.
- Identify ways to increase physical activity in their community.

Session 12: Conclusion

- Identify skills gained from the program
- Identify ways skills will be used to manage healthy lifestyle

Group title: “Step It Up to A Better You”

Session 1: “Introduction”

Format (60 minutes total):

Introduce members – 5 minutes
Introduction to Program, introduction to types of activities – 15 minutes
Introduction and instructions for equipment – 10 minutes
Worksheets (activity log, daily food log) – 10 minutes
Sharing – 10 minutes
Questions and Concerns – 5 minutes
Summary and Wrap up – 5 minutes

Supplies:
Worksheets (activity log, food log)
Pens/ pencils
Scale
Pedometers
Waist circumference tape measure

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with a registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Describe the purpose of the lifestyle modification program
- Identify the expectations and benefits of the lifestyle modification program
- Utilize the equipment provided (scale, pedometer, worksheets).

Description:

1. Introduction:
   Warm-up – Introduce co-leaders of group, have each participant state their name and say their favorite activity.
2. Review objectives of the session.

Activity (Introduction of the Lifestyle Modification Program and expectations)

1. The main goal of this lifestyle modification program is for participants to gain a healthy lifestyle with an enhanced quality of life and ability to participate in meaningful daily activities.
   - From what you have found out so far, what are your expectations of the Program?
   - What would you like to learn about through the course of the 12 weeks?
   - How can we best provide resources for you to reach your own goals for this Program?

2. Our objectives for the lifestyle modification program for each participant is to be able to learn how to use program equipment, plan a healthy and nutritious meal, make a healthy meal on a budget, increase physical and meaningful activities into daily life, and develop self-confidence, self-esteem, a positive body image, and motivation to modify habits.
3. Equipment Introduction– the equipment that we will be using includes pedometers, a scale, and a waist circumference tape measure.
    - Pedometers are a device that enables the user to count how many steps are taken throughout a day. We would like it if you could start wearing a pedometer and write down how many steps you take throughout the day. Our goal is for you to increase the number of steps you take throughout the day. Research illustrates that individuals who have more physically active lifestyles are able to maintain their weight (Bernstein, Costanza, & Morabia, 2004).
    - The scale is a tool used for measuring body weight. As the weeks pass, we would like to weigh you and see if our intervention is having an impact on your life.
    - We would also like to measure your waist circumference because measured waist circumferences of 35 inches and above in women and 40 inches and above for men are positively correlated with health risks.
4. Worksheets – Along with BMI measurements, we would like you to keep a log of your daily activities and food choices. It is our hope that this will not be a difficult process for you but will allow you to visually assess your choices and create attainable goals from these worksheets. *Pass out worksheets and ask if there are any questions or concerns.*

Sharing:

1. Now we would like to go over how you are feeling:
2. After hearing all of this information, what are you thinking as far as what you expect from this program?
3. Is there anything that may have been missed or left out that you would like to have incorporated into the program?

Summary:

1. Review the objectives of the group.
2. Include any general principles using group members' names.
3. Thank members for their participation, openness, honesty, and willingness to share and trust.
4. End group on time, if anything was missed, address here in the summary.
5. Give homework of filling out activity and food logs.
6. Have participants choose a goal to complete for the next week.
7. Next session we will cover motivation and its impact on lifestyle choices.

My Goals

Session 1: Introduction

- ☐ *I will be add more physical activity to my day starting today.*
- ☐ *I will fill out my physical activity chart and food logs every day.*
- ☐ *I will attend every session of Step It Up to A Better You.*
- ☐ *I will be honest with myself and try my best throughout this program.*
- ☐ ________________
- ☐ ________________

Session 2: Motivation and You

- ☐ *I will find one thing this week that motivates me to eat healthy.*
- ☐ *I will call a friend for support if I feel like not exercising.*
- ☐ *I will use what I have learned from the group so far to stay positive.*
- ☐ ________________
- ☐ ________________

Session 3: Adding Meaningful Physical Activity to Your Day

- ☐ *I will add 30 minutes of activity to my week starting today.*
- ☐ *I will take the stairs instead of the elevator this week.*
- ☐ *I will take the stairs instead of the elevator this month.*
- ☐ ________________
- ☐ ________________

Session 4: Eating Right Starting Today

- ☐ *I will eat 5 more servings of vegetables this week.*
- ☐ *I will stop drinking soda-starting today.*
- ☐ *I will use my handouts to remind me of how to eat better.*
- ☐ ________________
- ☐ ________________
- ☐ ________________

Session 5: Healthy Meal Preparation on a Budget

☐ *I will make a budget before I shop this week.*

☐ *I will make 2 healthier meals each week.*

☐ *I will make chicken that is skinless for dinner instead of fried.*

☐ ______

☐ ______

☐ ______

Session 6: Chicken Soup for the Soul

☐ *I will remind myself that I am beautiful.*

☐ *I will remind myself that I am a good person.*

☐ *I will start to love myself for who I am.*

☐ ______

☐ ______

☐ ______

Session 7: Exploring Your Community

☐ *I will find one place that I have never been in town and go there.*

☐ *I will go to the park once a week.*

☐ *I will ride my bike twice a week starting Tuesday.*

☐ ______

☐ ______

☐ ______

Session 8: Tips for Quality Sleep

☐ *I will try one thing from the Sleep Tips handout this week.*

☐ *If I can't sleep, I won't use food to calm me. I will do something else instead. (read a book, watch TV, do breathing exercises).*

☐ *I will develop and use a sleep hygiene schedule.*

☐ ______

☐ ______

Session 9: Developing Coping Strategies

☐ *I will use one coping skill that I learned this week when I feel stressed.*

☐ *When I start to think negatively, I will not eat a pint of ice cream.*

☐ *I will recognize signs of emotional eating within myself.*

☐ ______

☐ ______

Session 10 and 11: Developing a Healthy Lifestyle Maintenance Action Plan (MAP)

☐ *I will use my MAP plan when I start to feel like I am getting off track.*

☐ *I will keep my MAP plan updated.*

☐ *I will notify people in my support system about my MAP plan.*

☐ ______

☐ ______

☐ ______

Session 12: From this Moment On… Conclusion Ceremony

☐ *I will continue to write healthy lifestyle goals for myself.*

☐ *I will use the knowledge and skills that I have gained to be healthier.*

☐ *I will stay positive and enjoy the little things in life.*

☐ ______

☐ ______

☐ ______

Food Log

Date	Breakfast	Lunch	Dinner	Snacks	Water	How I felt during...
Tue	*1 C oatmeal, 8 oz. milk, 1 banana*	*1 serving skinless chicken breast, 1 C broccoli*	*Chili, 1 dinner roll. 2 C corn*	*2 Tbsp. peanut butter and celery*	*8 tall glasses*	*I felt good today, I am proud of myself*
Wed	*2 eggs, 1 piece of toast, 2 tsp. cinnamon sugar*	*2 burgers from a restaurant, fries & 3 pop's*	*Skipped Dinner*	*A Twinkie and a pop*	*5 tall glasses*	*I slipped up and everything went south from there, tomorrow is a new day*
Thur	*1 C cold cereal, 1/3 C. skim milk, a small apple*	*Lunch*	*Dinner*	*Snack*	*64 oz.*	*I am a good person and I am doing great*
Fri						
Sat						
Sun						
Mon						

Food Log

Date	Breakfast	Lunch	Dinner	Snacks	Water	How I felt during...

Physical Activity Log

Date	Type of Activity	Duration	Number of Steps	How I felt during the activity	How I felt after the activity	How close to my goal did I get?
Tue	*Walking*	*30 minutes*	*360*	*Like dying*	*Great!*	*Almost, 40 more steps*
Wed	*None*	*0*	*0*	*Didn't do any ☹*	*I am committed to walking tomorrow*	*Not even close, I didn't do anything*
Thur	*Walking and Biking*	*30 mins / 20 mins*	*400*	*Awful but better than the first day*	*Tired but it was worth IT!*	*Made IT!*
Fri						
Sat						
Sun						
Mon						

Physical Activity Log

Date	Type of Activity	Duration	Number of Steps	How I felt during the activity	How I felt after the activity	How close to my goal did I get?

Group title: “Step It Up to A Better You”

Session 2: “Motivation and You”

Format (60 minutes total):
Introduction – 10 minutes
Outline – 10 minutes
Reading and Discussion – 15 minutes
Activity– 20 minutes
Summary and Wrap up – 5 minutes

Supplies:
Colored Construction Paper (Large size)
Magazines (food, outdoors family, etc.)
Glue
Markers, Pens, Colored Pencils, Pencils

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with a registered OTR/L providing supervision.

Objectives: Individual will be able to:

- Identify a variety of motivational factors.
- Distinguish between factors that facilitate or impede motivation in participation in daily activities and healthy eating habits.
- Describe how the lifestyle modification program can enable success and promote wellness through motivational factors.

Description:

1. Introduction
   Warm-up Activity: Read *The Thighs Have It* (p. 49) from Chicken Soup for the Soul or other appropriate reading. Discuss the following:
   - What are your thoughts after hearing this reading?
2. Review objectives of the session.

Activity:
Motivation is a complex emotion. This includes choosing which activities you do throughout the day and the activities are based on your values and interests. Today we are going to explore what you value and what you are interested in to determine what motivates you. Some factors that can motivate you can include intrinsic or extrinsic factors. Intrinsic factors are also known as internal factors or are a direct benefit to you. Extrinsic factors are also known as external motivators. This can include being paid to work out or obtaining a gift for reaching your goal. These are not necessarily “bad” factors but if not coupled with intrinsic factors you will be less likely to achieve the best possible outcome.

1. When you set meaningful goals, are you more likely to achieve these goals?
2. If someone were to pay you to work out, would you do it just for him or her?
3. How much harder would it be if this were the only factor for motivating you?

Now we are going to do an activity to determine what motivates you, and next we will make a collage of all of the things that motivate you so you can hang it up and let it help you become and stay motivated.

Outline:
On a large sheet of paper or white board make a line down the middle, write motivational factors on the right, and write un-motivational factors on the left. Hand out motivational factors list to each group member.

4. What are some factors that motivate you?
5. What are some factors that make you feel unmotivated?

Once the sheet is filled out, discuss what it is about these factors that make them motivational or un-motivational. Read *Phone Friend* (p.6) from Chicken Soup for the Dieter's Soul or another appropriate story about peer support and how it can increase motivation.

6. How can a friend help motivate you to follow through with your goals?

Activity:
Hand out and let group member choose the color of their construction paper. Lay out the magazines, scissors, markers, pens, pencils, rulers, and glue. Have the group members find quotes, foods, colors, activities, animals, children, and more of what motivates them either from the created list or new things they find in the magazines. When they have completed the collage, they can use these as a visual reminder of the program and their overall goal.

Sharing:
When the group members have completed their collage; have a volunteer share their collage and explain what motivates them. Continue around the group until they have finished.

1. What have you learned from this group?

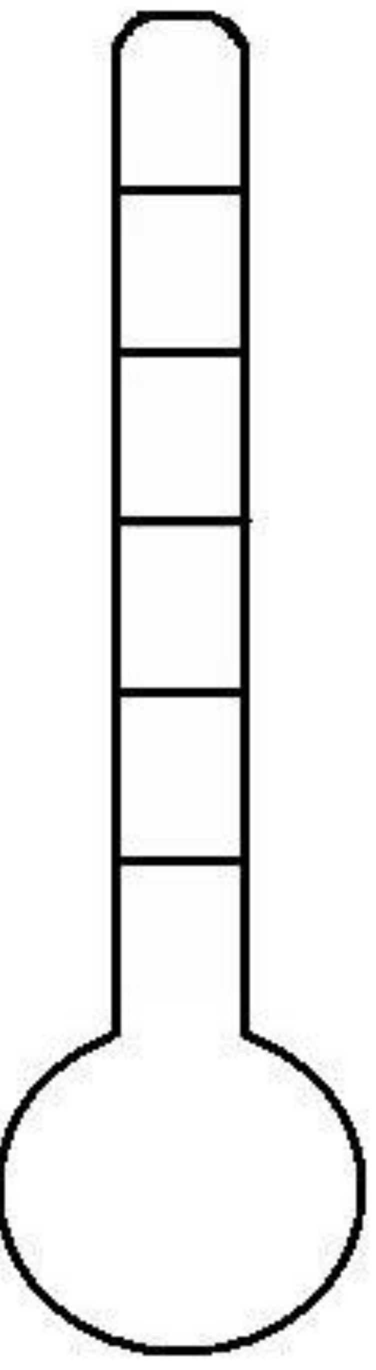
Now I have a surprise. I have a giant thermometer, we will record everyone's steps, and we need to decide as a group the number of steps we want to reach as a group. Have each group member color in the amount of steps they have completed that week.

Summary:

1. Review the objectives of the group.
2. Include any general principles using group members' names.
3. Thank members for their participation, openness, honesty, and willingness to share and trust.
4. End group on time, if anything was missed, address here in the summary.

5. Give homework of filling out activity and food logs.
6. Have group members choose a goal to complete for the next week.
7. Next session we will cover adding meaningful physical activity to your life.

Example of Thermometer



* Numbers are placed at the lines, which are determined by the group's overall step goals. The thermometer is colored in as participants complete steps each week.

Factors that Motivate Me	Factors that Don’t Motivate Me

Group title: “Step It Up to A Better You”

Session 3: “Adding Meaningful Physical Activity to Your Life”

Format (60 minutes total):

Review Last Session – 5 minutes
Session’s Introduction and Objectives-2 minutes
Warm-Up- 5 minutes
Instructions for Activity- 1 minute
Power Point Slides-30 minutes
Sharing-5 minutes
Discussion-10 minutes
Summary-2 minutes

Supplies:
Tables and chairs
1 Printed handout for each group member
Writing utensils
Projector
Power Point Presentation
Computer
Chicken Soup for the Dieter’s Soul.

Group Members: Adults who are overweight or obese living in the Grand Forks community.

Group Facilitators: Occupational therapy students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Describe the benefits of physical activity
- Identify healthy and unhealthy activity habits
- Identify barriers and solutions to participating in physical activities
- Verbalize ways to increase physical activity in daily life
- Discuss ways and routines to incorporate physical activity into daily life utilizing existing roles
- Select and participate in moderate physical activities
- Identify safe ways to participate in physical activity and when to STOP activity
- Discuss the importance and benefits of a support system

Description:
Introduction

1. Warm-Up: Read *The Bargain* (p. 227) from Chicken Soup for the Soul or other appropriate reading.
2. Review objectives of session.

Activity:

1. Give every group member a printed handout of the Power Point slides *Adding Physical Activity to Your Life* with notes pages to write down notes. Go through the power point with the group members and answer any questions that arise during the presentation.
2. At the slide where it says, Let's Practice! Go through some simple stretches of the upper and lower extremity with pursed breathing techniques.

Sharing:

1. What are some negative consequences for physical inactivity?
2. What are some barriers to physical activity?
3. Why is it hard to get started?
4. Why is it hard to keep with it?
5. What are some solutions you can think of to overcome the barriers?
6. Who does a support system consist of?

Processing:

1. Why do you think it is important to add physical activity to your life?
2. Why is it beneficial to have a support system?

Generalizing:

1. How can you use the information you learned today?

Application:

1. How will you use this information you learned today in your own life?

Summary:

1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have group members choose a goal to complete for the next week.
7. Next session we will have a guest speaker who will cover the nutritional aspects of food for making more healthy food choices.

Slide 1

ADDING MEANINGFUL PHYSICAL ACTIVITY TO YOUR LIFE

Slide 2

TODAY'S OBJECTIVES

- Individual will be able to:
  - Describe the benefits of physical activity
  - Identify healthy and unhealthy activity habits
  - Identify barriers and solutions to participating in physical activities
  - Verbalize ways to increase physical activity in daily life
  - Discuss ways and routines to incorporate physical activity into daily life utilizing existing roles
  - Select and participate in moderate physical activities
  - Identify safe ways to participate in physical activity and when to STOP activity
  - Discuss the importance and benefits of a support system

Slide 3

WARM-UP ACTIVITY

- Chicken Soup of the Day Reading

Read *The Bargain* (p. 227) from Chicken Soup for the Soul or other appropriate reading.

Slide 4

BENEFITS OF PHYSICAL ACTIVITY

- Strengthens lungs and muscles
- Aids in joint health
- Slows bone loss
- Gives ENERGY
- Aids in relaxation
- Promotes sleep
- Healthy way to cope with stress
- Builds confidence
- Provides enjoyment and time spent with loved ones

National Heart Lung and Blood Institute [NHLBI], 2006

Slide 5

BENEFITS CONTINUED

- Decreases risks for chronic disease
  - Type II Diabetes
  - High blood pressure
  - Heart Disease
  - Stroke
  - Some types of cancer
- Improves cardiovascular health
- Improves one's quality of life
- Improves one's thinking and memory
- Decreases risk for depression

Centers for Disease Control [CDC], 2008

Slide 6

PHYSICAL INACTIVITY

- What are some negative consequences for physical inactivity?

Encourage group members to share their personal feelings and stories. This question is after the benefits of physical activity to encourage the group members to identify unhealthy habits and healthy habits. Unhealthy consequences of physical inactivity could be: risks for chronic diseases such as diabetes, heart disease, and stroke, decreased self-esteem, feelings of depression, weight gain, insomnia or sleep apnea, decreased energy, etc.

Slide 7

BARRIERS TO PHYSICAL ACTIVITY

- What are some barriers to physical activity?
- Why is it hard to get started?
- Why is it hard to keep with it?

Sometimes there are barriers to starting to participate in physical activity. Share some of your barriers. Encourage participation here by sharing a personal story.

Slide 8

BARRIERS TO PHYSICAL ACTIVITY

- It has been a long time
- I am too busy
- I am too tired
- I can't get motivated
- I don't like to be active

(Weight-control Information Network, [WIN], 2006)

WIN, 2006 identifies these barriers.

Slide 9

SOLUTIONS TO BARRIERS

- What are some solutions you can think of to overcome the barriers?

Before providing solutions to the identified barriers of the group and of WIN, 2006. Let the group brainstorm some solutions to their own barriers to participating in physical activity.

Slide 10

SOLUTIONS TO BARRIERS

- It has been a long time
  - Start slow with small steps; talk to your doctor
- I am too busy
  - Be active only a few minutes at a time
- I can't get motivated
  - Complete a variety of activities
  - Complete activities with your friends
  - Set realistic goals
  - Track your progress with your activity log
  - Reward yourself!
- I don't like to be active
  - Complete activities you enjoy
  - Be active with your friends
  - Add music, go outside!

(WIN, 2006)

WIN, 2006 identifies these barriers and solutions for some ideas.

Slide 11

HOW DO I GET STARTED?

- Start with 5-10 minutes of physical activity a day
- Gradually increase time each day
- Keep track of your minutes each day using your physical activity log!
- Try to reach 30 minutes a day by the 12th week!
  - Remember you don't have to complete 30 straight minutes, break it up during your day, completing 10 minutes each time.

NHLBI, 2006; United States Department of Agriculture [USDA], 2009

Encourage the group members that they don't have to go overboard. Managing weight and changing lifestyle is about taking the small steps to limit discouragement. Encourage the group to start with 5-10 minutes of physical activity each day (moderate physical activity) and to gradually increase the time each day. For example: If they start with 10 minutes today, by the end of the week they should strive for 15 minutes each day. Tell the group members to keep track of their physical activity in their daily activity log.

Slide 12

HOW DO I GET STARTED?: IDEAS

- Join a walking club (don’t forget your pedometer!)

Encourage the group members to form a walking club to keep motivated and to reach goals. They could meet once a week and walk around the facility 2-3 times.

Slide 13

HOW DO I START?

- Participate in activities that promote muscle strengthening 2 days per week
- Some ideas:
  - Complete bicep curls with soup cans during meal preparation
  - Complete squats while emptying the dishwasher
  - Lift a milk jug 8-10 times with both arms during breakfast

CDC, 2009

The CDC, 2009 recommends 2 days per week to strengthen large muscle groups. There are some listed ideas to complete within one's daily routine. Again, encourage the group members to not over do it, but to take small steps.

Slide 14

WHAT IS MODERATE PHYSICAL ACTIVITY?

- It is recommended to complete 30 minutes of moderate physical activity each day.
- Moderate physical activity is defined as being able to talk during your activity.

(CDC, 2009)

The CDC, 2009 recommends completing 30 minutes of moderate physical activity each day. That number will be the end goal by the 12th week of the program. You should be able to talk throughout the physical activity for it to be a moderate physical activity.

Slide 15

EXAMPLES OF MODERATE PHYSICAL ACTIVITY

- Moderate Activities:
  - Walking briskly (bring your pedometer!)
  - Water Aerobics
  - Biking (under 10 mph)
  - Tennis
  - Ballroom Dancing

(CDC, 2009; USDA. 2009)

Here are some examples of moderate physical activity.

Slide 16

ADDING PHYSICAL ACTIVITY IN YOUR LIFE

- Participate in activities that are meaningful
  - Go for a walk with a friend
  - Go swimming with your kids and family
  - Take your kids to the park or go with a friend
  - Complete household duties
  - Participate in local sport activities

Scaffa, Reitz, and Pizzi, 2010

To keep motivated and to maintain the recommended amount of physical activity, encourage the group members to choose meaningful activities.

Slide 17

OTHER TIPS TO ADD PHYSICAL ACTIVITY TO YOUR DAY

- Park farther away in the parking lot so you have to walk farther
- Don’t use your remote, get up to change the channel
- Sit on a exercise ball instead of your desk chair when working on your computer
- Stand to do activities such as folding laundry

Here are some additional ideas to increase physical activity throughout one’s day within one’s routine.

Slide 18

REMEMBER

- Before participating in any physical activity
  - Drink plenty of water and stay hydrated
  - Stretch, deep breath, and warm up your muscles!
- Let’s Practice!

Encourage the group members to drink plenty of water throughout the day; especially before, during, and after any physical activity. Water keeps the body hydrated, cushions joints, and keeps the body cool. It is recommended to drink when thirsty (WIN, 2006) It is also important to stretch and warm up before and after physical activity. Demonstrate some quick and simple stretches that incorporate the upper and lower extremity and also demonstrate and practice pursed lip breathing.

Slide 19

SAFE PHYSICAL ACTIVITY

- Where comfortable shoes
- Slow down if you become out of breath
- Stop all activity if:
  - You become dizzy
  - If you have pain or tightness in your shoulder, arm
  - Have cold sweats
  - Have muscle cramps
  - Feel pain in your joints

(WIN, 2006)

It is important to wear suitable shoes during physical activity to protect joints and feet. It is important for the group members to monitor their body during the physical activity and should STOP all activity if the listed situations occur. Encourage them to decrease the amount of time or the intensity of the physical activity. It is important to start at one's physical level and start with small steps.

Slide 20

IMPORTANCE OF HAVING A SUPPORT SYSTEM

- Research shows that people who have a support system
  - lose more weight
  - Keep weight off longer
  - able to carry through and reach goals
  - manage their weight loss more effectively

(Clarke, Freeland-Graves, Klohe-Lehman, & Bohman, 2007; Gruber & Haldeman, 2009)

It is important to develop a support system of friends, family, or someone who the individual is comfortable in participating physical activity with. A support system motivates individuals to keep going and aids in managing weight and changing of one's lifestyle.

Slide 21

IMPORTANCE OF HAVING A SUPPORT SYSTEM

- Who does a support system consist of?

Encourage the group members to share ideas of who may be a great support system. Encourage them to start thinking of who they would want to have a part of their own support system.

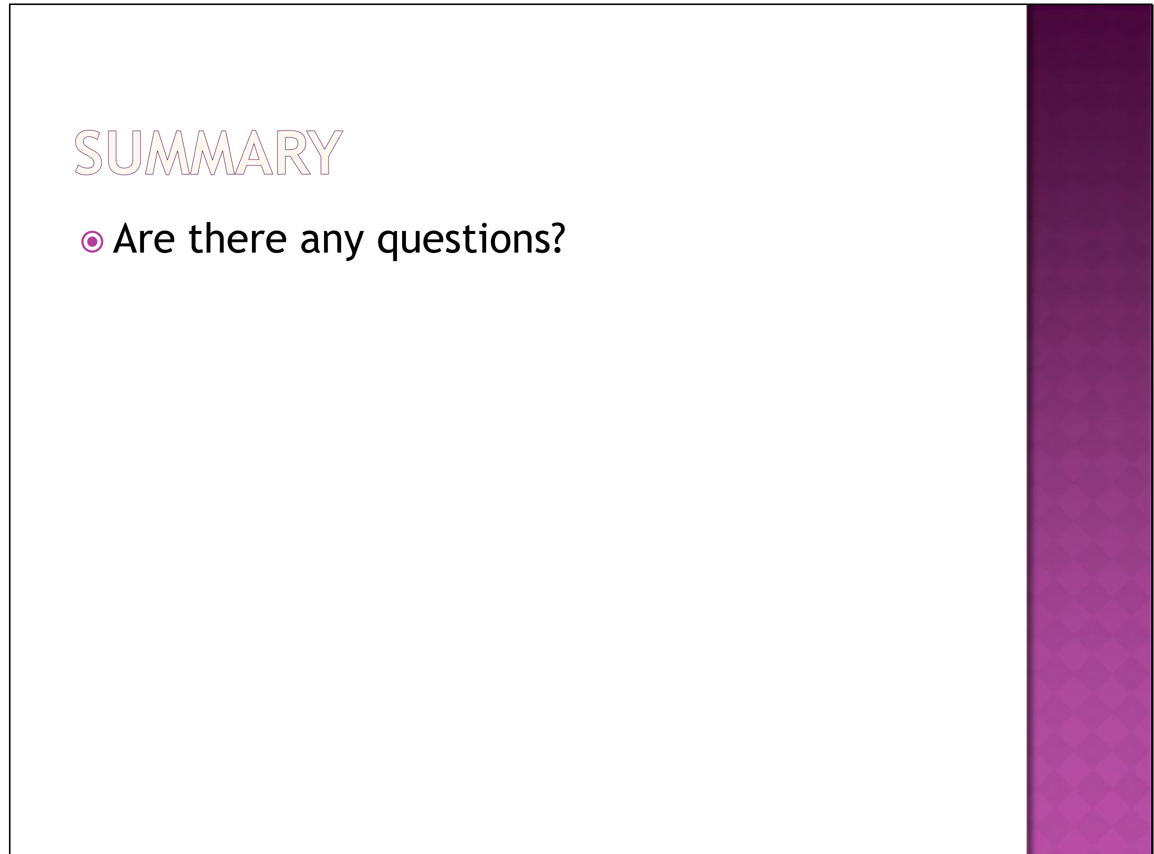
Slide 22

TIME TO MAKE THIS WEEK'S GOAL

- The ultimate goal is to increase your daily physical activity.
- Start with small steps
- Make your goals achievable
- Gradually increase the time (or number of steps) of activity each day
- Example: This week I am going to walk around the building 3 times.
- Example: This week I am going to…

Reiterate that the main goal is to increase physical activity more than what they are used to doing. If it 5 minutes that is great and if it is 10 minutes a day that is great. It is important that the group member makes their goals achievable. They are to make their goals on their weekly goal sheet.

Slide 23



Ask one of the group members to share what they have learned in today's session. Review the objectives of the group.

Slide 24

REFERENCES

- Centers for Disease Control and Prevention. (2008). *Physical activity for everyone: Physical activity and health*. Retrieved September 25, 2009, from http://www.cdc.gov/physicalactivity/everyone/health/index.html
- Centers for Disease Control and Prevention. (2009i). *Physical activity for everyone: Measuring physical activity intensity.* Retrieved September 25, 2009, from http://www.cdc.gov/physicalactivity/everyone/measuring/index.html
- Clarke, K. K., Freeland-Graves, J., Klohe-Lehman, D. M., & Bohman, T. M. (2007). Predictors of weight loss in low-income mothers of young children. *Journal of American Dietetic Association, 107*(7), 1146-1154. doi:10.1016

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REFERENCES

- Gruber, K. J., & Haldeman, L. A. (2009). Using the family to combat childhood and adult obesity. *Public Health Research, Practice, and Policy, 6*(3), 1-10.
- National Heart, Lung, and Blood Institute. (2006). *Facts about healthy weight*. (DHHS Publication No. 06-5830). Washington, DC: U.S. Government Printing Office.
- Scaffa, M. E., Reitz, S. M., & Pizzi, M. A. (2010). Weight management and obesity reduction. In C. Fratantoro, & P. Waltner (Eds.), *Occupational therapy in the promotion of health and wellness*. Philadelphia, PA: F.A. Davis.
- United States Department of Agriculture. (2009b). *Inside the pyramid: What is physical activity?* Retrieved September 25, 2009, from http://www.mypyramid.gov/pyramid/physical_activity.html
- Weight-control Information Network, Initials. (2006, October). *Active at any size*. Retrieved from http://win.niddk.nih.gov/publications/a ctive.htm#What_physical_activities_can_ a_very_large_person_do

Participant Handout

ADDING MEANINGFUL PHYSICAL ACTIVITY TO YOUR LIFE

TODAY'S OBJECTIVES

- Individual will be able to:
  - Describe the benefits of physical activity
  - Identify healthy and unhealthy activity habits
  - Identify barriers and solutions to participating in physical activities
  - Verbalize ways to increase physical activity in daily life
  - Discuss ways and routines to incorporate physical activity into daily life utilizing existing roles
  - Select and participate in moderate physical activities
  - Identify safe ways to participate in physical activity and when to STOP activity
  - Discuss the importance and benefits of a support system

WARM-UP ACTIVITY

- Chicken Soup of the Day Reading

BENEFITS OF PHYSICAL ACTIVITY

- Strengthens lungs and muscles
- Aids in joint health
- Slows bone loss
- Gives ENERGY
- Aids in relaxation
- Promotes sleep
- Healthy way to cope with stress
- Builds confidence
- Provides enjoyment and time spent with loved ones

National Heart Lung and Blood Institute [NHLBI], 2006

BENEFITS CONTINUED

- Decreases risks for chronic disease
  - Type II Diabetes
  - High blood pressure
  - Heart Disease
  - Stroke
  - Some types of cancer
- Improves cardiovascular health
- Improves one's quality of life
- Improves one's thinking and memory
- Decreases risk for depression

Centers for Disease Control [CDC], 2008

PHYSICAL INACTIVITY

- What are some negative consequences for physical inactivity?

BARRIERS TO PHYSICAL ACTIVITY

- What are some barriers to physical activity?
- Why is it hard to get started?
- Why is it hard to keep with it?

BARRIERS TO PHYSICAL ACTIVITY

- It has been a long time
- I am too busy
- I am too tired
- I can't get motivated
- I don't like to be active

(Weight-control Information Network, [WIN], 2006)

SOLUTIONS TO BARRIERS

- What are some solutions you can think of to overcome the barriers?

SOLUTIONS TO BARRIERS

- It has been a long time
  - Start slow with small steps; talk to your doctor
- I am too busy
  - Be active only a few minutes at a time
- I can't get motivated
  - Complete a variety of activities
  - Complete activities with your friends
  - Set realistic goals
  - Track your progress with your activity log
  - Reward yourself!
- I don't like to be active
  - Complete activities you enjoy
  - Be active with your friends
  - Add music, go outside!

(WIN, 2006)

HOW DO I GET STARTED?

- Start with 5-10 minutes of physical activity a day
- Gradually increase time each day
- Keep track of your minutes each day using your physical activity log!
- Try to reach 30 minutes a day by the 12th week!
  - Remember you don't have to complete 30 straight minutes, break it up during your day, completing 10 minutes each time.

NHLBI, 2006; United States Department of Agriculture [USDA], 2009

HOW DO I GET STARTED?: IDEAS

- Join a walking club (don't forget your pedometer!)

How Do I Start?

- Participate in activities that promote muscle strengthening 2 days per week
- Some ideas:
  - Complete bicep curls with soup cans during meal preparation
  - Complete squats while emptying the dishwasher
  - Lift a milk jug 8-10 times with both arms during breakfast

CDC, 2009

What Is Moderate Physical Activity?

- It is recommended to complete 30 minutes of moderate physical activity each day.
- Moderate physical activity is defined as being able to talk during your activity.

(CDC, 2009)

Examples of Moderate Physical Activity

- Moderate Activities:
  - Walking briskly (bring your pedometer!)
  - Water Aerobics
  - Biking (under 10 mph)
  - Tennis
  - Ballroom Dancing

(CDC, 2009; USDA, 2009)

Adding Physical Activity in Your Life

- Participate in activities that are meaningful
  - Go for a walk with a friend
  - Go swimming with your kids and family
  - Take your kids to the park or go with a friend
  - Complete household duties
  - Participate in local sport activities

Scaffa, Reitz, and Pizzi, 2010

Other Tips to Add Physical Activity to Your Day

- Park farther away in the parking lot so you have to walk farther
- Don't use your remote, get up to change the channel
- Sit on a exercise ball instead of your desk chair when working on your computer
- Stand to do activities such as folding laundry

Remember

- Before participating in any physical activity
  - Drink plenty of water and stay hydrated
  - Stretch, deep breath, and warm up your muscles!
- Let's Practice!

SAFE PHYSICAL ACTIVITY

- Where comfortable shoes
- Slow down if you become out of breath
- Stop all activity if:
  - You become dizzy
  - If you have pain or tightness in your shoulder, arm
  - Have cold sweats
  - Have muscle cramps
  - Feel pain in your joints

(WIN, 2006)

IMPORTANCE OF HAVING A SUPPORT SYSTEM

- Research shows that people who have a support system
  - lose more weight
  - Keep weight off longer
  - able to carry through and reach goals
  - manage their weight loss more effectively

(Clarke, Freeland-Graves, Klohe-Lehman, & Bohman, 2007; Gruber & Haldeman, 2009)

IMPORTANCE OF HAVING A SUPPORT SYSTEM

- Who does a support system consist of?

TIME TO MAKE THIS WEEK'S GOAL

- The ultimate goal is to increase your daily physical activity.
- Start with small steps
- Make your goals achievable
- Gradually increase the time (or number of steps) of activity each day
- Example: This week I am going to walk around the building 3 times.
- Example: This week I am going to…

Group title: "Step It Up to A Better You"

Session 4: "Eating Right, Starting Today"

Format (60 minutes total):

Review Last Session – 5 minutes
Session's Introduction and Objectives-2 minutes
Instructions for Activity- 1 minute
Handouts
Sharing-5 minutes
Discussion-10 minutes
Summary-5 minutes

Supplies:
Tables and chairs
Handouts will be provided for each group member from Dietician student
Writing utensils

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Dietician student from the University of North Dakota with assistance from occupational therapy students from University of North Dakota.

Objectives: Individuals will be able to:

- Identify healthy foods
- Demonstrate how to manage calories
- Choose foods and beverages with a moderate amount of calories
- Read food labels
- Identify healthy portion sizes

Description:

1. Introduce student presenter and allow group to introduce themselves.
2. Review objectives of session.

Activity:
Give every group member prepared handouts. Present the information and go through the handout with the group members and answer any questions that arise during the presentation of the worksheet.

Sharing:

1. How do you feel about the information presented today?

Processing:

1. Why is it important to know how to identify healthy foods and unhealthy foods?
2. Why is it important to keep track of your calories?

3. Why is it important to be aware of food portion sizes?
4. Why is it important to read food labels?
5. Why is it beneficial to know the advantages of eating healthy?

Generalizing:

1. How can you use this information you used today?

Application:

1. How will you use this information in your own life?
2. I want everyone to make a goal for this week to use this information you learned today.

Summary:

1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have the group members choose a goal to complete for the next week.
7. Next session will help you in preparing healthy meals on a budget.

Group title: “Step It Up to A Better You”

Session 5: “Healthy Meal Preparation on a Budget”

Format (60 minutes total):
Introduce Members – 5 minutes
Review Last Session – 5 minutes
Session’s Objectives-2 minutes
Instructions for Activity- 1 minute
Worksheets-10 minutes
Cooking Activity-20 minutes
Sharing-5 minutes
Discussion-10 minutes
Summary-5 minutes

Supplies:
Tables and chairs
Three Printed handouts/resources
Extra sheets of paper for warm-up activity
Extra sheet of paper for goal setting
Writing utensils
Kitchen with working stove and oven with additional space for group discussion
Food items to prepare one healthy and thrifty recipe

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:
- Identify healthy and thrifty ways to prepare meals.
- Identify ways to plan meals on a budget
- Identify ways to grocery shop for healthy food items with a budget.

Description:
1. Introduction
   Warm-Up: Tell all the members to write down three reasons why it may be difficult to eat healthy while on a budget. The group facilitator will give the group an opportunity to share their ideas. Read *Weight Loss Wisdom from a Toddler* (p. 96) and *Ten Tricks to Help You Stay on Your Diet* (p. 99) from Chicken Soup for the Soul or other appropriate reading.
2. Review objectives of session.

Activity:
1. Give every group member a handout that provides tips for healthy meal planning and preparation on a budget. Go through the handout with the

group members and answer any questions that arise during the presentation of the worksheet.

2. Prepare yogurt, granola, and chocolate chips to demonstrate thrifty meal and dessert ideas after the presentation of the worksheet to demonstrate healthy meal preparation on a budget. Hand out the recipe to each of the group members.

Sharing:
1. How many of you use or have used some of the healthy meal and budget tips on the handouts?
2. Can someone share where and how they receive grocery coupons?
3. Does someone have any additional information or tips they would like to share with the group?

Processing:
1. Why do you think it is important to make a healthy meal plan before making the meal?
2. Does anyone know why homemade meals or making meals from "scratch" is cheaper and often times healthier than buying the pre-packaged meals?
3. Does anyone know why buying store brands or "off" brands is a good idea?
4. Why is reading the Nutritional Label on packaged foods a good idea?

Generalizing:
1. How can you use the information you learned today?
2. Why is it important to learn what foods are healthy?

Application:
1. Do you think healthy meal planning and preparation will be something you will strive to add into your life?
2. How will you use these tips in your own life?
3. I would like everyone to make a weekly goal on how you are going to make a healthy meal utilizing the tips you learned today. (give every member a piece of paper to make a goal)

Summary:
1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have group members choose a goal to complete for the next week.
7. Next session we will make chicken soup and explore sources of inspiration.

Healthy Meal Planning on a Budget

Healthy Meal Planning Tips:

- Before you go shop, make a grocery list and stick to it.
- Find and use coupons, find ads for specials/sales, buy off-brand products.
- Make meals with food items you already have in the kitchen.
- Build your meal around brown rice, wheat noodles, or other grains instead of expensive meats.

Meal Planning the Easy Way:

- Cook with a crock-pot or slow cooker.
- Make large meals and freeze half of it for leftovers. Ex: pot roast, stews, and soups.
- Healthy and easy snacks include fresh fruit, raw vegetables, or whole grains (whole-wheat peanut butter sandwich).

Tips while you grocery shop:

- Buy and stock on low-priced nutritious foods.
- Compare the cost of pre-packaged and meals made from scratch.
- Buy store brands
- Compare fresh, frozen, and canned fruits and vegetables; buy the sale.
- Read the Nutrition Label on packaged foods and buy foods with less sodium, calories, and fat.
- Check the expiration dates!
- Check the cost of foods per ounce, pound, etc.

Healthy Meal Preparation on a Budget

Tips for Healthy Cooking:

- Bake or grill meats and remove the skin off chicken. This cuts excess fat.
- Flavor your food with special seasonings (Mrs. Dash) instead of high fat sauces and gravy.
- If you buy canned vegetables and fruit, make sure you make your meals with at least one fresh ingredient.
- Make homemade desserts with fruit to cut costs and provide nutrition.

Tips for Eating Out the Healthy Way

- Avoid dishes with lots of cheese, sour cream and mayonnaise.
- Instead of fried foods, choose boiled spiced shrimp, or baked, boiled or grilled fish or chicken.
- Choose bread or pita pockets over croissants.
- Salads make great meals, but be careful of the dressing.
- Split a large entree with another family member. You'll save dollars — and calories! (alternatively, eat half at the restaurant and take the next half home!)
- Try to avoid all-you-can-eat buffets because you are more likely to overeat.
- Pickles, onions, lettuce, tomato, mustard and catsup add flavor without the fat.
- A baked potato instead of French-fries can be a healthier option.

References

United States Department of Agriculture, Center for Nutrition Policy and Promotion. (2000). *Recipes and tips for healthy, thrifty meals*. Washington, DC: Government Printing Office.

American Heart Association. (2008a, April 11). *Tips for eating at family restaurants*. Retrieved from http://www.americanheart.org/presenter.jhtml?identifier=1091

American Heart Association. (2008b, April 11). *Tips for eating fast food*. Retrieved from http://www.americanheart.org/presenter.jhtml?identifier=1092

Group title: “Step It Up to A Better You”

Session 6: “Chicken Soup for the Soul”

Format (60 minutes total):

Chicken Soup Prep – 5 minutes
Reading and Discussion – 40 minutes
Eat Soup – 10 minutes
Summary and Wrap up – 5 minutes

Supplies:
Soup Supplies:
See Recipe
Chicken Soup for the Dieters Soul and, or Chicken Soup to Inspire the Body and Soul

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with a registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Share how motivation can positively or negatively affect participation in daily activities.
- Demonstrate inspiration to continue the program through:
    - Identify ways to achieve positive self-esteem
    - Share how self-esteem influences motivation.
    - Identify ways to achieve a positive body image
    - Share how body image influences motivation.

Description:

1. Introduction
   A batch of soup should be already prepared and ready to eat after another batch of soup is started. This way the meal can still be eaten during the hour and the participants can have a healthy meal to take home. Start the group by preparing stations of cutting, mixing, chopping, etc. for making chicken soup.
2. State the objectives of the session.

Sharing:
Begin by reading *The Only Way to Begin Is to Begin* (p.314) from <u>Chicken Soup to Inspire the Body & Soul</u> or an appropriate inspirational story, and have the group members discuss the story.

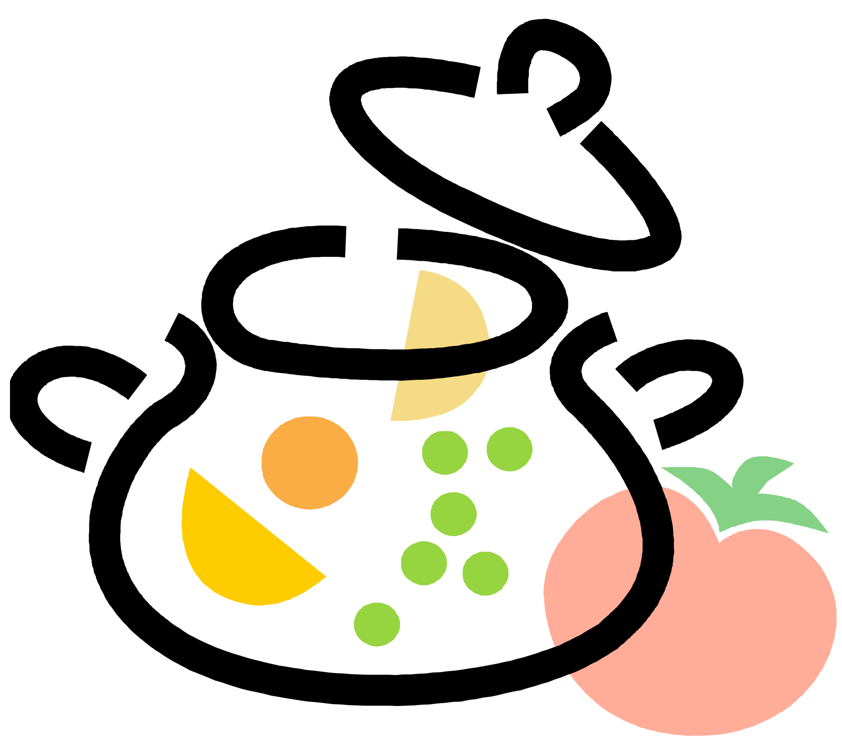
1. How did this make you feel?
2. Did you relate to the people in the story?
3. How are you feeling as we are completing the program?

4. How are things going?
5. Are you implementing the strategies we have taught you?
6. What do you find easy?
7. What do you find challenging?
8. What can we do to help you succeed?
9. What can you do for yourself to help you succeed?

Summary:

1. Review the objectives of the group.
2. Include any general principles using group members' names.
3. Thank members for their participation, openness, honesty, and willingness to share and trust.
4. End group on time, if anything was missed, address here in the summary.
5. Give homework of filling out activity and food logs.
6. Have group members choose a goal for the next week.
7. Next session we will explore what opportunities are available in the Greater Grand Forks Community to aid in your lifestyle modification process.

Chicken Soup Recipe



1 lb chicken
½ head shredded green cabbage
1 minced garlic clove
2 chopped celery stalks
2 lbs diced fresh tomatoes
3 chopped carrots
2 Tbsp. chopped fresh parsley
½ tsp. dried thyme (optional)
½ tsp. dried basil (optional)
Freshly ground black pepper to taste
4 C. low-sodium chicken stock, or 4 C. water
2 Tbsp. fresh lemon juice, or 2 Tbsp. cider vinegar

In a large heavy bottomed soup pot, bring all the ingredients except lemon juice or vinegar to a boil. Lower heat and simmer 1 hour. Remove chicken parts and shred chicken and return to pot. Add lemon juice or vinegar. Taste, and adjust seasonings.

Group title: “Step It Up to A Better You”

Session 7: “Exploring Your Community”

Format (60 minutes total):

Review Last Session – 5 minutes
Session’s Objectives-1 minute
Instructions for Activity- 5 minutes
Worksheets-30 minutes
Sharing-5 minutes
Discussion-10 minutes
Summary-4 minutes

Supplies:
Tables and chairs
Grand Forks Community Resource Package for each member (27 pages)
Extra paper for goal making
Writing utensils

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Share at least 5 resources that are available for physical activity and managing a healthy lifestyle in their community.
- Identify ways to increase physical activity in their community.

Description:

1. Introduction
   Warm-Up: Research shows that communities that have large amounts of space, parks, and that are safe increase participation in physical activity. Begin by reading *No More Pancakes on This Woman’s Shopping List* (p.220) from <u>Chicken Soup to Inspire the Body & Soul</u> or other appropriate story.
2. Review objectives of session.

Activity:

1. Give every group member a 2009-2010 Grand Forks Resource packet. Go through the packet with the group members and answer any questions that arise during the presentation of the packet.

Sharing:

1. Does anyone see anything that they did not know Grand Forks had?
2. Does anyone see anything that they know they would like to do?

3. Is there something missing from the resource binder that you would like to have or to know more about?
4. Has anyone already participated in these activities?
5. Does anyone know of other activities that Grand Forks has that is not in the package?

Processing:
1. Does this resource package make management of your healthy lifestyle easier?
2. How does this resource package make management of your healthy lifestyle easier?

Generalizing:
1. How are you going to use this resource package?
2. Do you think this resource package will help you stay active in the community?

Application:
1. Do you think the resources in this package will help you stay active and help manage your healthy lifestyle?
2. I want everyone to make a weekly goal to plan an activity to participate in using this resource package. (give everyone a piece of paper and pen to make a weekly goal)

Summary:
1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have group members choose a goal to complete for the next week.
7. Next session we will discuss how sleep can affect health and wellness.

Grand Forks Community Resources

A Guide to Activities and Events in the Grand Forks Area

Adapted from the work of 3rd Year Occupational Therapy Students from the University of North Dakota

Introduction

The Community Resource binder was developed by the fall 2009 Masters of Occupational Therapy Students, Principles of Education class. It was created to serve as a book to provide people living in Grand Forks with limited budgets, ideas of activities to do within the area. This book contains ideas for places to go shopping, area churches, area parks, warm and cold weather activities.

This resource also has information on year round activities like movie theaters, bowling alleys, fitness centers, museums, and other community events. The book was created with information from the current year of 2009, so times, prices, and events may vary. Contact information has been provided for all activities and businesses. Please call these locations to verify information provided in this packet.

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Warm Weather Activities

- **Parks and Recreation Areas**
  - ***The Greenway*** (See attached map)
    Consists of 2,200 acres of natural space lining the Red River.
    Activities include:

- Golfing
- Biking
- Camping
- Hiking
- Boating
- Picnic areas
- Bird watching
- Walking/Running
- Canoeing
- Rollerblading
- Kayaking
- Fishing

  - ***Lincoln Drive***, Grand Forks
    - Includes: dog park, Frisbee golf, gardens, horseshoe pits, picnic areas, sand volleyball

  - ***Sherlock Park,*** East Grand Forks
    - Includes: outdoor pool, playground, picnic areas, gardens

  - ***University Park,*** Grand Forks
    - Includes: Floral gardens, picnic areas, Splash park, tennis courts, horseshoe pits

  - ***Bringewatt Park,*** Grand Forks
    - Includes: picnic areas, sand volleyball, soccer field

  - ***Elks Park***, Grand Forks
    - Includes: Outdoor pool, splash park

  - ***Sertoma Park,*** Grand Forks
    - Includes Ali's Boundless Playground, the Japanese Garden, and picnic areas

- **Bike Riding**
  - More than 43 miles of bike trails available
    - *2009 Bikeway Map included*
  - Bike Rentals from Ski & Bike Shop located on S Washington St.

- **Golfing**
  - ***Kings Walk***, 5301 S Columbia Road, Grand Forks
    - Contact: 701-787-5464 or www.kingswalk.org
    - 18 holes with 4 sets of tees
    - Clubhouse includes golf shop, dining room & patio

  - ***Valley Golf,*** 2401 River Rd NW, East Grand Forks, MN
    - Contact: 218-773-1207 or www.valleygolfegf.com
    - 18 hole course

  - ***Ray Richards Golf Course*** ¸ 3501 DeMers Ave, Grand Forks
    - Contact: 701-777-4340
    - 9 holes

  - ***Lincoln Golf Course,*** Elks Dr. and Belmont Rd, Grand Forks
    - Contact: 701-746-2788
    - 9 hole course

- **Canoeing**
  - Canoe and equipment rentals are available through UND Lifetime Sports Center
    - Contact: 701-777-3981 or www.naturenorthwest.org/redlakeriver

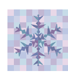
- **Fishing**
  - More than 50 species of fish most popular include catfish, northern pike, walleye, sauger, small mouth bass, and carp
  - Contact Convention and Visitors Bureau at 800-866-4566

- **Racing Events**
  - ***River City Speedway***, 2300 Gateway Dr, Grand Forks
  - Friday night races: Hot Laps starting at 6:30 p.m. Racing beginning at 7:30 p.m.
  - For more information: 701-780-0999 or www.riverspeedway.com

Cold Weather Activities

Hiking, Snow shoeing, Sledding and Skiing at the Greenway

- Multi-purpose trails along the Red River contains almost 20 miles of trains and an 8.5-mile loop of groomed trail with two pedestrian bridges and scenic views.
- Gear Rentals:
  - **Gerrells Sports Center**
    (701) 775-0553
    1004 South Washington St.
    Men's Hockey and women's recreational Skates

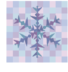


  - **Play It Again Sports**
    (701) 795-1424
    1803 South Washington Street
    Men and women's ice skates

  - **Scheels Sports Store**
    (701) 780-9424
    1375 Columbia Road
    Downhill and cross country skis, snowboards, snowshoes

  - **Ski and Bike Shop**
    (701) 772-5567
    1711 South Washington Street
    Downhill and cross country skis, boots and poles, snowshoes

  - **UND Lifetime Sports Center**
    (701) 777-3981



Ice Fishing on the Red River

- Renting gear unavailable: may be purchased fishing equipment at Scheels, Cabela's, and Wal-Mart

Ice Hockey Rinks: Outdoor Skating

- Park Activity Building Hours:
  M-F: 3:30-8:30 pm
  Sat, Sun, and Holidays 12:00pm-8:30pm
  (rinks are open prior to 12pm, however the Park Activities Building is only open during designated hours.)

- Available at the following parks: not all addresses available
  - Ben Franklin Park: 2121 Westward Dr
  - Cox Park: 2207 10th St Ave
  - Dike Park
  - Elks Park: 1002 13th Ave South
  - Griggs Park
  - Harney Park
  - Jaycees Park: 4790 Technology Circle
  - Kelly Park: 904 32nd Ave South
  - Lincoln Drive: 120 Euclid Ave
  - Lions Park: 3211 17th Ave South
  - Exchange Club
  - Riverside Park: 100 Park
  - Maplewood Park
  - University Park
  - Stauss Park
  - Optimist Park: 4600 Cherry
  - O'Leary Park
  - Nash Park

Christmas in the Park

- Route through Lincoln Drive Park in the Greenway
- Cost: $5 per car
- Contact: 701-775-5759
- Dates: November 27, 2009-December 31,2009
- Time: 5:30PM – 10:00PM

To learn more about the activities suggested:

- Access computers and internet at the East Grand Forks and Grand Forks Public Libraries: GF library cards 50¢, EGF library cards free
  - Grand Forks Library
    2110 Library Circle
    Address: Grand Forks, ND 58201-6324; Phone: (701) 772-8116
  - East Grand Forks Campbell Library
    422 4th St NW
    East Grand Forks, MN 56721
    (218) -773-9121
- http://www.gfparks.org:
- http://www.grandforksgov.com/
- http://www.visitgrandforks.com ** Information obtained from the Grand Forks Visitors Bureau

Community Events in Grand Forks

Chess Night
Grand Forks Public Library
Phone: (701) 772-8116
Email: GFPLChildrens@yahoo.com

Note: Introduction to Chess Night. All ages welcome.

Open Mic Night
DeMers Avenue
East Grand Forks, MN
Phone: (218) 773-2479

Note: Every Thursday open mic night at Mike's Pizza. All ages welcome. Features local talent.

Book Club
When: Last Thursday every month; 7-8 p.m.
Where: Grand Forks Library (442-3944)
Event: Public
Admission: Free

Alerus Center's Annual Easter Egg Hunt

1200 S. 42nd St.
Grand Forks, ND 58201
(701) 792-1200-General Office

Event Date: Saturday, April 3, 2010
Time: 9am-12pm
Tickets: Free
Status: Public

Annual Grand Forks Art and Craft Festival

Alerus Center
1200 S. 42nd St.
Grand Forks, ND 58201
(701) 792-1200-General Office

Event Date: Annual
Tickets: $2.00
Status: Public

Taste of the Holiday
What: A sampling extravaganza of fine foods, wines, beverages and gifts
Where: Alerus Center

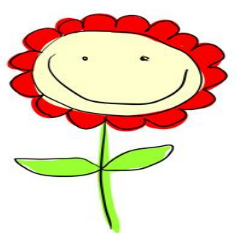
1200 S. 42nd St.
Grand Forks, ND 58201
(701) 792-1200-General Office

Event Date: November 10, 2009
Tickets: $10 advance; $15 day of show
Status: Public

UND Sporting Events

UND Ticket Office
One Ralph Engelstad Drive
University of North Dakota
Grand Forks, ND 58202

(701) 772-5151
www.fightingsioux.com



Pride of Dakota Holiday Showcase
Alerus Center
1200 42nd St S
Grand Forks, ND United States
Contact: (701) 740-2230 or
www.prideofdakota.com.

When: Annual

What: Get all your Christmas shopping done in one stop by attending the Pride of Dakota Holiday Showcase! Over one hundred vendors will be selling products made right here in North Dakota.

Santa Village
Where: Lincoln Golf Course Clubhouse
When: Starts Thursday December 10; Ends Sunday December 20
Event: Public
Admission: Non-perishable food, toy, cash.
Contact: Lynne Roche (701) 746-2750

Family Fun Night and Chalk It Up!
What: Family games, hotdogs, ice cream, a parade by the Just for Fun kids, face painting, inflated games, clowns and much more!
Where: Lincoln Drive Park
When: July
Event: Public
Admission: Free
Contact: Lynne Roche (701) 746-2750

Friday Night Races
Where: 2300 Gateway Dr/River Cities Speedway
Event: Public
When: Summer; 7:30 p.m.
Contact: (701) 780-0999 or
http://www.rivercitiesspeedway.com

Town Square Farmers Market
Where:Downtown - corner of DeMers Ave & 3rd St
Contact: Phone: 218-779-1382;
creitmeier@canadinns.com or
http://www.tsfarmersmarket.com
When: Summer; 9 a.m.-2 p.m.
Event: Public
Admission: Free!

Chester Fritz Auditorium
What: Live entertainment
Where: 3745 University Avenue Stop 9028
Grand Forks, ND
Contact: (701) 777-4090 or
www.cra.und.edu
Event: Public

Empire Arts Center
What: Art exhibits, theatre performances, movies, and much more!
Where: 415 DeMers Ave.
Contact: (701) 746-5500 or
www.empireartscenter.com

Blues on the Red
What: Enjoy an evening of great blues music in the heart of beautiful downtown Grand Forks. Top musicians from around the country will provide the free entertainment, while CanadInns catering sells great barbecue and burgers.
Where: Town Square
Contact: 701-772-8404;
creitmeier@canadinns.com
When: Summer; 5-10 p.m.
Admission: Free, but there is a charge for food and beverages

Parks in Grand Forks

Butterfly Garden
Where: 1827 Bygland Rd.
East Grand Forks, MN
Contact: Call to make arrangements for a tour; (218) 773-3190 or www.egf.k12.mn.us
What: 25,000-square-foot butterfly garden is located on a 30-acre native prairie site that attracts all types of butterflies. Additionally, the prairie site features a variety of different grasses, wildflowers, and birds to watch.
Event: Public
Admission: Free

Japanese Garden
Where: Sertoma Park
3300 11th Ave S
Grand Forks, ND
What: Japanese garden that features the beauty of rocks, water, hills, tress, and plants, along with three granite Japanese-style rock lanterns.
Event: Public
Admission: Free

Dog Park
Where: Lincoln Drive Park
120 Euclid Avenue
Grand Forks, ND
What: Bring your dog to run free with other dogs within a fenced in park.
Event: Public
Admission: Free

Lincoln Drive Park
Where: 120 Euclid Avenue
Grand Forks, ND
(13th Avenue South and Lincoln Drive)
What: You can come here to walk or bike on the trails, Frisbee golf, cross country ski (in the winter) and much more!!

University Park
Where: 320 North 25th Street
Grand Forks, ND
(University Avenue and North 25th Street)
What: You can come here to walk or bike on the trails, play tennis or horseshoes, enjoy the flower gardens, play in the spray park and more!!

Find other parks in Grand Forks… http://www.gfparks.org/parksshelters.htm

Places to Exercise in Grand Forks

Altru's Health and Fitness Center
1300 S Columbia Rd, Grand Forks, ND
701-780-2516
Call for membership rates and hours.

Center Court Fitness Club
1600 32nd Ave S, Grand Forks, ND
701-746-2790
Call for membership rates and hours.

YMCA
215 N 7th St, Grand Forks, ND
701-775-2586
Call for membership information, hours and programs offered here.

Sneaker Steps Mall Walker Club

Columbia Mall
2800 Columbia Road, Grand Forks, ND
701-746-7383
Walking occurs 7 days/week and doors open to mall walkers 2 hours before stores open. Call for more information or to sign up!

Also,…You can walk at any of the parks listed above, or simply take a walk at the Greenway by the Red River or around town!

Museums in Grand Forks

North Dakota Museum of Art
261 Centennial Drive, Grand Forks, ND
701-777-4195
Website: http://www.ndmoa.com
Hours: M-F 9:00am to 5:00pm
Sat-Sun 1:00pm-5:00pm
Admission: Free

Artsplace
1110 2nd Ave, Grand Forks, ND
701-746-6479
Call for more information

Grand Forks County Historical Society
2405 Belmont Road, Grand Forks, ND
701-775-2216
Website: http://grandforkshistory.com
Hours: Open May 15 to September 15
Tours daily 1pm-5pm

During winter hours, contact the museum for a tour

Admission:
$5 for ages 16 years and older
$3 for ages 10 to 16 years
Free for children under 10 years
Check the website for information on events held here throughout the year

Grand Forks/East Grand Forks Community Theaters

Carmike 10 Cinema (Grand Forks)
Located at 2306 32nd Ave S, Grand Forks, ND 58208
Phone: (701) 772-4719
Call for daily movies and movie times
Theater Prices: Adult Matinee- $4.50
Child Matinee- $4.50
Adult Evening- $6.50
Child Evening- $4.50
For additional information go to:
http://www.carmike.com/showtimes.aspx?fct=5&tid=141

River Cinema 12 (East Grand Forks)
Located at 211 DeMers Ave, East Grand Forks, MN 56721
Phone: (218) 399-9000
Call for daily movies and movie times
Theater Prices: Matinee (before 6pm) - $4.50
Evening- $6.50
Children (under 12) - $4.50
Senior Citizens- $4.50
Matinee (for senior citizens Tues-Thurs) - $3.00
For additional information go to:
http://www.moorefamilytheatres.com/rivercinema12.asp

Grand Forks/East Grand Forks Community Bowling Alleys

Red Ray Lanes (Grand Forks)
Located at 2105 South Washington St, Grand Forks, ND 58201
Phone: (701) 775-0663
Bowling Prices: Adult day bowling (11a.m.-6p.m.)- $3.00, children (under 12)- $2.50
Adult evening bowling (9:30 to close)- $3.75, children (under 12)- $3.00
Shoe rental- $2.00
Bowling Times: 11a.m.-6p.m. and 9:30p.m. to close

Liberty Lanes Lounge & Grill (East Grand Forks)
Located at 1500 5th Ave NE, East Grand Forks, MN
Phone: (218) 773-3477
Bowling Prices: Adult and children- $2.50
Shoe rental- $2.00
Bowling Times: 8:00a.m.-1:00p.m. Sunday-Saturday
Bowling League Nights, (bowling is not open to the public):
Mon and Tues starting at 6:30p.m

Group Title: "Step It Up to A Better You"

Session 8: "Tips for Quality Sleep"

Format (60 minutes total):

Review Last Session – 5 minutes
Session's Introduction and Objectives-2 minutes
Warm-Up- 15 minutes
Instructions for Activity- 1 minute
Worksheet-15 minutes
Sharing-5 minutes
Discussion-10 minutes
Summary-5 minutes

Supplies:
Tables and chairs
One Printed handout for each group member
Writing utensils

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Describe a sleep hygiene schedule and tips for quality sleep.
- Identify relaxation techniques and ways to utilize them for an improved quality sleep.

Description:

1. Introduction:
   Warm-Up: Begin by reading *Spaghetti Head* (p.157) from Chicken Soup to Inspire the Body & Soul or other appropriate story.
2. The objectives of session are addressed at this time.

Activity:

1. Give every group member a handout that provides tips for quality sleep. Go through the handout with the group members and answer any questions that arise during the presentation of the worksheet.

Sharing:

1. Does anyone have trouble getting a good quality of sleep?
1. Do you think these tips on quality of sleep will help you have improved sleep?
2. Does anyone have any additional information or tips they would like to share with the group?

Processing:

1. Why do you think it is important to have quality sleep?
2. Why is quality sleep beneficial to have?

Generalizing:

1. How can you use the information you learned today?

Application:

1. How will you use these tips in your own life?

Summary:

1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have each group member choose a goal to complete for the next week.
7. Next session we will explore how unhealthy and healthy coping strategies have an impact on your lifestyle

Ideas to Improve Your Sleep

Setup your room for sleep

- Keep your room at a comfortable temperature
- Keep your room dark
- Wear earplugs if you hear noise
- Imagine your arms and legs are heavy and relaxed
- Focus on feeling relaxed and sense relaxation

Relax before bed

- Listen to soft, soothing music
- Breath in and out slowly 5 times and softly say "relax" as you exhale
- Meditate
- Relax your muscles

Tips for Quality Sleep

- Avoid taking naps during the day; establish a "getting ready for bed" routine.
- Avoid caffeine, nicotine, and alcohol. (especially later in the day)
- Avoid eating large meals 2 hours before bedtime.
- Avoid drinking beverages after your evening meal.
- Avoid environments that will make you feel active.
- Setup your room for sleep
- Relax before bed
- Go to bed only when you feel tired
- Use your bed only for sleep. (Do not read, watch TV. Or eat, etc.)
- While in bed, think of pleasant thoughts and relax
- Leave your room if you do not fall asleep within 15-20 minutes
- Go back to bed when you feel tired again; if you cannot fall asleep after 15-20 minutes leave your room again.
- Get up at the same time every morning. (set an alarm)
- Get regular physical activity!

Group title: "Step It Up to A Better You"

Session 9: "Developing Coping Strategies"

Format (60 minutes total):
Warm Up Activity– 5 minutes
Charades – 15 minutes
Worksheet and Discussion– 25 minutes
Introduce MAP – 10 minutes
Summary and Wrap up – 5 minutes

Supplies:
Charades Game Pieces
Coping Skill Worksheet
MAP Plan package for each member (12 pages)
Pencils / Pens

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with a registered OTR/L providing supervision.

Objectives: Individuals will be able to

- Distinguish between healthy and unhealthy coping strategies.
- Identify how to implement healthy coping strategies.

Objectives for MAP plan: Individuals will be able to:

- Identify the importance and benefits of maintain a healthy lifestyle
- Identify the importance and benefits of having a maintenance plan in place.
- Describe how to continue a healthy lifestyle maintenance plan.

Description:

1. Introduction:
   Warm-up: Share a personal story about how healthy coping strategies helped achieve a goal. Either coping strategies can help us reach our goals, or they can add to our stress and push us farther away from reaching our goals. Now we will play charades to learn some coping skills, both positive and negative.
2. Review objectives of session.

Activity:
"Coping Skills Charades": Have each group member act out a coping skill they draw from a pile/hat. When the skill is guessed, have the group determine if it is healthy or un-healthy coping skill. Have group members save the strategy they acted out for the next group activity.

Sharing:
Hand out the worksheet on coping strategies. Have the group fill out their sheet. Have the group members use the strategy they acted out. Ask:

1. Have you used the strategy before?
2. What was the situation?
3. What was the outcome of the situation?

If it was a negative coping skill, have the member determine a positive skill and how the outcome would be different. Have each member do this so that everyone's worksheets get filled out. Ask:

4. How can using negative coping strategies make us unmotivated?
5. How can using positive coping strategies motivate us?

Give every group member a MAP plan packet. Briefly describe the purpose of the MAP plan, which is to provide the participant a guide to maintain his or her lifestyle after the end of the program. Review the objectives of the MAP plan. Proceed to fill out MAP plan until after the "Wellness Tools" section, which incorporates healthy coping strategies the participants, learned in today's session.

Summary:

1. Review the objectives of the group.
2. Include any general principles using group members' names.
3. Thank members for their participation, openness, honesty, and willingness to share and trust.
4. End group on time, if anything was missed, address here in the summary.
5. Give homework of filling out activity and food logs.
6. Have group members choose a goal to complete for the next week.
7. Next session we will continue to develop our MAP healthy maintenance plans.

Healthy Coping Strategies I utilize now in my life…	Unhealthy Coping Strategies I utilize now in my life …
Healthy Coping Strategies I want to implement in my life …	Unhealthy Coping Strategies I want to cut down on in my life…

Charades

Ride a Bike	Take a Walk	Swim	Take a shower
Take a bath	Take a nap	Call someone	Draw
Journal	Play sports	Watch Sports	Go to the Park
Read a book	Watch a comedy on TV	Sing	Dance
Take a deep breath	Eat a healthy snack	Think positive	Get a new haircut / style
Dress up	Look at your Motivational Collage	Re-read your goals	Spirituality
Listen to music	Enjoy the little things	Overeating or Stress / Emotional Eating	Being a couch potato
Cry	Throw things	Being Negative	Giving Up
Negative Self Talk	Taking Anger out on someone else	Throwing a Pity Party for yourself	Meditation
Think negative	Going to Fast Food	Relax	Count to 10

Maintenance Action Plan

Your Guide to Maintaining a Healthy Lifestyle

Adapted from the work of Mary Ellen Copeland, MA, MS

www.mentalhealthrecovery.com

Personal Information

This Healthy Lifestyle Maintenance Plan Belongs to:

Name____

Address____

City______________________State________________Zip________________

Telephone____

Email____

Signatures

I, ________________________developed this plan on_______________________

Name   Date

I developed this plan with:

1.____

2.____

3.____

Signed______________________________________Date__________________

Witness_____________________________________Date__________________

Witness_____________________________________Date__________________

Witness_____________________________________Date__________________

Wellness Tools

The wellness tools are your healthy coping strategies you use or have developed from this program. The wellness tools also are things you do to keep living a healthy lifestyle (eating healthy and being active).

This is a list of **wellness tools** that I can use to keep living a healthy lifestyle.

______________________________	____________________________
______________________________	____________________________
______________________________	____________________________
______________________________	____________________________
______________________________	____________________________
______________________________	____________________________
______________________________	____________________________

Daily Maintenance Plan

You have developed ways to keep on a healthy track each day. This plan helps you decide what you need to do each day to remain healthy, and to help you plan each day. If you start to feel like you are getting off your healthy track, you can come back to this list to see what is on your Daily Maintenance Plan.

The following is a list of **things that I do each day to remain on my healthy track** (example: eat fruit, drink water, go for a walk).

____________________________ ____________________________

____________________________ ____________________________

____________________________ ____________________________

The following is a list of **how I feel when I am on my healthy track** (example: proud, motivated, and healthy).

____________________________ ____________________________

____________________________ ____________________________

____________________________ ____________________________

Triggers

There may be certain situations or things that make you want to overeat, eat unhealthy foods, or lay on the couch all day. The awareness of these triggers will help you cope and avoid unhealthy reactions.

The following is a list of things that trigger unhealthy habits and reactions (walking by my favorite fast food restaurant, not eating breakfast, getting into a fight with my friend).

_____________________________ _____________________________

_____________________________ _____________________________

_____________________________ _____________________________

If I am triggered, I want to….(call a friend for support, listen to relaxing music, practice positive self-talk).

_____________________________ _____________________________

_____________________________ _____________________________

_____________________________ _____________________________

Early Warning Signs

You may find yourself getting off your healthy lifestyle track. You may experience early signs that may point out you need to take further action to get back on track.

The following list are early warning signs that may happen if I got off track and need further action to get back on track (not eating healthy meals, not being physically active).

____________________	____________________
____________________	____________________
____________________	____________________

If I notice these early warning signs, I will take the following actions (call a friend for support, start fresh the next day, take baby steps to get back onto the track, read motivational stories).

____________________	____________________
____________________	____________________
____________________	____________________

Crisis Planning

You may find yourself totally off your healthy lifestyle track where you may need someone to assist you to get back on. You may have lost all control and motivation. Crisis planning helps you stay in control with the help of others. The individuals you identify to help you will know exactly what to do to assist you.

The following is a list of individuals who I trust that will help me get back on my healthy lifestyle track.

Support #1: Name____

Support #2: Name____(optional)

Support #3: Name____(optional)

If I am in a crisis, my supporters need to help me and follow my crisis plan.

Your crisis plan has to let your supporters know:

- What to do when you have fallen off track (go grocery shopping with you, go for a walk with you)
- What to say when you have fallen off track ("You can do it!", "You can start fresh tomorrow")

You want to let your supporters know when you are starting to feel better.

Post Crisis Planning

When you start getting back on your healthy lifestyle track you still may feel like you are not 100% back on track. You may get off track again but your post crisis plan will help you have a simpler time getting back on track.

The following questions are there for you to ask yourself.

1. How did I get off track?

 ____

 ____

 ____

 ____

2. What do I need to change?

 ____

 ____

 ____

 ____

Post Crisis Planning Continued: Getting Back on Track

When you are getting back on track, it is important to resume responsibilities for yourself and for your supporters. Also, it is important to plan who is responsible for what when you are having a hard time.

Responsibility:____

____

Who has been doing this for me?:____

____

When I resume this responsibility, I need to (review my Daily Maintenance Plan)

____

____

____

Responsibility:____

____

Who has been doing this for me?:______________________________________

____

When I resume this responsibility, I need to (review my Daily Maintenance Plan)

____

____

____

Responsibility:____

____

Who has been doing this for me?:______________________________________

____

When I resume this responsibility, I need to (review my Daily Maintenance Plan)

____

____

____

Responsibility:____

____

Who has been doing this for me?:______________________________________

____

When I resume this responsibility, I need to (review my Daily Maintenance Plan)

____

____

____

Responsibility:____

____

Who has been doing this for me?:____

____

When I resume this responsibility, I need to (review my Daily Maintenance Plan)

____

____

____

The following is a plan for when I resume my responsibilities to maintain a healthy lifestyle (eat healthy every day, participate in daily physical activities)

____

____

____

____

____

Notes and Ideas

Group Title: "Step It Up to A Better You"

Session 10 & 11: "Developing a Healthy Lifestyle Maintenance Plan"

Format (60 minutes total):

Review Last Session – 5 minutes
Session's Objectives-1 minute
Instructions for Activity- 5 minutes
Worksheets-30 minutes
Sharing-5 minutes
Discussion-10 minutes
Summary-4 minutes

Supplies:
Tables and chairs
MAP Plan package for each member (12 pages)
Writing utensils

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Identify the importance and benefits of maintain a healthy lifestyle
- Identify the importance and benefits of having a maintenance plan in place.
- Describe how to continue a healthy lifestyle maintenance plan.

Description:

1. Introduction
   Warm-Up: Begin by reading *The Road to Self-Worth* (p.123) from Chicken Soup to Inspire the Body & Soul or other appropriate story. For session, 11 read *Weight in the Balance* (p.150) from Chicken Soup to Inspire the Body & Soul or other appropriate story
2. Describe the objectives of the session.

Activity:
Give every group member a MAP plan packet. Go through the packet with the group members and answer any questions that arise during the presentation of the packet.

Sharing:

1. What would help each of us stay on our healthy lifestyle track?

Processing:
1. Why do you think it is important to make a healthy lifestyle maintenance plan?
2. Why is it important to have a support system?
3. Why is it important that your support system is involved in your maintenance plan?

Generalizing:
1. How are you going to use your maintenance plan?
2. Do you think making this maintenance plan will help you stay on track?

Application:
1. Do you think making this maintenance plan will help you stay on track?

Summary:
1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members' names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.
6. Have group members choose a goal to complete for the next week.
7. Next session will complete our MAP plans.

Group title: “Step It Up to A Better You”

Session 12: “From This Moment On…”

Format (60 minutes total):

Review Last Session – 5 minutes
Session’s Introduction and Objectives-2 minutes
Instructions for Activity- 1 minute
Sharing-5 minutes
Discussion-10 minutes
Summary-5 minutes

Supplies:
Tables and chairs
Program Evaluation/Satisfaction Survey for every member
Healthy Snacks and beverages for every member
Certificate for every member for successful completion of the 12-week program

Group Members: Adults over the age of 18 interested in improving their health and quality of life.

Group Facilitators: Occupational therapy Students from the University of North Dakota with registered OTR/L providing supervision.

Objectives: Individuals will be able to:

- Identify skills gained from the program
- Identify ways skills will be used to manage healthy lifestyle

At the conclusion of the 12-week program group members should have

- Enhanced quality of life
- Increased physical activity
- Increased motivation
- Increased healthy nutrition choices
- Decreased weight

Description:

1. Introduction:
   Warm-Up: Congratulations to all for completing the 12-week program! Group facilitator will read an inspirational reading from Chicken Soup of the day.
2. Cover the objectives of the session at this time.

Activity:

1. Group members will participate in a celebration ceremony for the completion of the 12-week program. Every group member will be given a

certificate for successful completion of the program. Every member will complete a program evaluation/satisfaction survey.

Sharing:

1. How did this program benefit you?
2. Do you feel that this program gave you the skills to manage your healthy lifestyle independently?
3. Is there anything this program did not cover that you would like incorporated next time?

Processing:

1. Why is it important to think of it as changing your lifestyle and not being on a “diet”?

Generalizing:

1. How will this program assist you in managing your healthy lifestyle?

Application:

1. How are you going to keep using your skills from this program to manage and maintain your healthy lifestyle?

Summary:

1. Ask a volunteer to summarize.
2. Review the objectives of the group.
3. Include any general principles using group members’ names.
4. Thank members for their participation, openness, honesty, and willingness to share and trust.
5. End group on time, missing steps can be addressed here in the summary.

Certificate of Completion

Awarded to:

____

For completion of:

"Step It Up To A Better You"
A Lifestyle Modification Program

On the Date of:

____

By
The University of North Dakota
Occupational Therapy Department

____________________	____________________	____________________
Ashlee M. Lee, MOTS	Julie A. Stolt, MOTS	Janet S. Jedlicka, PhD, OTR/L

Daily Food Habits

Please answer the following questions to the best of your abilities. This information will be used to evaluate the effectiveness of the lifestyle modification program.

	Breakfast	Lunch	Dinner	Snacks
How often do you eat this meal a week?				
What does this meal typically consist of?				
How often do you make meals for yourself?				
How often do you eat pre-made food? (i.e. restaurant, frozen meals)				
What does a pre-made meal typically consist of?				

Developed by:
Ashlee M. Lee, MOTS; Julie A. Stolt, MOTS; & Janet S. Jedlicka, PhD, OTR/L
University of North Dakota Occupational Therapy Department

OCCUPATIONAL QUESTIONNAIRE

Developed by N. Riopel Smith with assistance from G. Kielhofner and J. Hawkins Watts (1986).[1]

INSTRUCTIONS:

In this questionnaire you will be asked to record your usual daily activities, and to answer some questions about these activities.

PART ONE:

Please think about how you have been spending your days the past few weeks. Try to decide what you do on a usual weekday (Monday - Friday). Using the worksheet that begins below, record your activities from the time you wake up. Each row represents a half hour. For each half hour record the main activity that you would be doing during that half hour. An activity can be anything from talking to a friend, to cooking, to bathing. If you do an activity for longer than a half hour, write it down again for as long as you continue to do that activity.

PART TWO:

After you have listed your activities, answer all four of the questions for each activity by circling the number of the most appropriate answer. Notice that the questions ask you to consider whether your activities are work, daily living tasks, recreation, or rest, and to consider how well you do the activities, how important they are to you, and how much you enjoy them. In the first question, work does not necessarily mean that you are paid for the activity. Work can include productive activities that are useful to other people, like volunteering at a hospital. Daily living tasks are activities that are related to your own self care, such as housekeeping and shopping. Rest includes taking a nap and not doing anything in particular. Even if a question does not seem appropriate for some of your activities, please try to respond to each one as accurately as possible. Your answers to every question are important!

[1] This instrument was first published in: Smith, N.R., Kielhofner, G., & Watts, J.H. (1986). The relationships between volition, activity pattern, and life satisfaction in the elderly. American Journal of Occupational Therapy, 40, 278-283.

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Occupational Questionnaire

Developed by N. Riopel Smith with assistance from G. Kielhofner and J. Hawkins Watts (1986).

Today's date ______________________

Name ______________________

Age ______________________

Typical Activities For the half hour beginning at:	Question 1 I consider this activity to be: 1 - work 2 - daily living work 3 - recreation 4 - rest	Question 2 I think that I do this: 1 - Very well 2 - Well 3 - About average 4 - Poorly 5 - Very poorly	Question 3 For me this activity is: 1 - Extremely important 2 - Important 3 - Take it or leave it 4 - Rather not do it 5 - Total waste of time	Question 4 How much do you enjoy this activity: 1 - Like it very much 2 - Like it 3 - Neither like it nor dislike it 4 - Dislike it 5 - Strongly dislike it
5:00 am	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
12:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

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Occupational Questionnaire (Continued)

Typical Activities For the half hour beginning at:	Question 1 I consider this activity to be: 1 - work 2 - daily living work 3 - recreation 4 - rest	Question 2 I think that I do this: 1 - Very well 2 - Well 3 - About average 4 - Poorly 5 - Very poorly	Question 3 For me this activity is: 1 - Extremely important 2 - Important 3 - Take it or leave it 4 - Rather not do it 5 - Total waste of time	Question 4 How much do you enjoy this activity: 1 - Like it very much 2 - Like it 3 - Neither like it nor dislike it 4 - Dislike it 5 - Strongly dislike it
12:30pm	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
1:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
1:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11:00	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11:30	1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

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Bibliography on the Model of Human Occupation

(Published Works on Instruments)

The Occupational Questionnaire

Barris, R., Kielhofner, G., Burch, R.M., Gelinas, I., Klement, M., & Schultz, B. (1986). Occupational function and dysfunction in three groups of adolescents. Occupational Therapy Journal of Research, 6, 301-317.

Ebb, E.W., Coster, W., & Duncombe, L. (1989). Comparison of normal and psychosocially dysfunctional male adolescents. Occupational Therapy in Mental Health, 9(2), 53-74.

Kielhofner, G., & Brinson, M. (1989). Development and evaluation of an aftercare program for young and chronic psychiatrically disabled adults. Occupational Therapy in Mental Health, 9(2), 1-25.

Rust, K., Barris, R., & Hooper, F. (1987). Use of the model of human occupation to predict women's exercise behavior. Occupational Therapy Journal of Research, 7, 23-35.

Smith, N., Kielhofner, G. & Watts, J. (1986). The relationship between volition, activity pattern and life satisfaction in the elderly. American Journal of Occupational Therapy, 40, 278-283.

Smyntek, L. Barris, R., & Kielhofner, G. (1985). The model of human occupation applied to psychosocially functional and dysfunctional adolescents. Occupational Therapy in Mental Health, 5(1), 21-40.

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Printed name	Signature	Date (mm/dd/yy)
Ashlee M. Lee	Ashlee M. Lee	12-08-09
Julie A. Stolt	Julie A Stolt	12/8/09

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By: [signature]
Date: 01/05/10

References

American Heart Association. (2008a, April 11). *Tips for eating at family restaurants*. Retrieved from http://www.americanheart.org/presenter.jhtml?identifier=1091

American Heart Association. (2008b, April 11). *Tips for eating fast food*. Retrieved from http://www.americanheart.org/presenter.jhtml?identifier=1092

American Occupational Therapy Association. (2007). Obesity and occupational therapy (position paper). *The American Journal of Occupational Therapy,* 701-703.

American Occupational Therapy Association. (2008). Occupational therapy framework: Domain and process. *American Journal of Occupational Therapy, 62*(6), 625-683.

Ayala, G. X., Rogers, M., Arredondo, E. M., Campbell, N. R., Baquero, B., Duerksen, S. C., & Elder, J. P. (2008). Away-from-home food intake and risk for obesity: Examining the influence of context. *Behavior and Psychology, 16*(5), 1002-1008.

Banwell, C., Lim, L., Seubsman, S.A., Bain, C., Dixson, J., & Sleigh, A. (2009). BMI and health-related behaviors in a national cohort of 87,134 Thai open university students. *Journal of Epidemiology Community Health.* doi: 10.1136/jech.2008.080820

Bernstein, M. S., Costanza, M. C., & Morabia, A. (2004). Association of physical activity intensity levels with overweight and obesity in a population-based sample of adults. *Preventive Medicine, 38*(1), 94-104. doi:10.1016/j.ypmed.2003.09.032

Bodea, T.D., Garrow, L.A., Meyer, M.D., Ross, C.L. (2009). Socio-demographic and built environment influences on the odds of being overweight or obese: The Atlanta experience. *Transportation Research Part A,* 43, 430-444.

Bruce, M., & Borg, B. (2002). *Psychosocial frames of reference*. Thorofare, NJ: Slack Incorporated.

Canfield, J., Hansen, M., Millman, D., & Wentworth, D. (2003). *Chicken soup to inspire the body and soul*. Deerfield Beach, FL: Health Communications Incorporated.

Canfield, J., Hansen, M., & Peluso, T. (2006). *Chicken soup for the dieter*. Deerfield Beach, FL: Health Communications Incorporated.

Centers for Disease Control and Prevention. (2006). *Research to Practice Series No. 2: Portion Size*. Atlanta, GA: Division of Nutrition and Physical Activity.

Centers for Disease Control and Prevention. (2009). *Overweight and obesity: U.S. obesity trends*. Retrieved November 23, 2009, from http://www.cdc.gov/obesity/data/trends.html

Cole, M.B. (2005). *Group dynamics in occupational therapy*. Thorofare, NJ: Slack Incorporated.

Heading, G. (2008). Rural obesity, healthy weight and perceptions of risk: Struggles, strategies and motivation for change. *Australian Journal of Rural Health, 16*, 86-91.

Health Partners, Inc. (2009). *10,000 steps program*. Retrieved from http://www.10k-steps.com/content/pedometer.aspx?owt=1

Kamioka, H., Nakamura, Y., Okada, S., Kitayuguchi, J., Kamada, M., Honda, T., . . . & Mutoh, Y. (2009). Effectiveness of comprehensive health education combining lifestyle education and hot spa bathing for male white-collar employees: A randomized controlled trial with 1-year follow-up. *Japan Epidemiological Association*. 19*(5)*:219-230. doi:10.2188/jea.JE20081020

Kielhofner, G. (2009). The model of human occupation. *Conceptual foundations of occupational therapy practice* (4th ed., pp. 147-174). Philadelphia, PA: F.A. Davis.

Laroche, H. H., Hofer, T. P., & Davis, M. M. (2007). Adult fat intake associated with the presence of children in households: Findings from NHANES III. *Journal of the American Board of Family Medicine : JABFM, 20*(1), 9-15. doi:10.3122/jabfm.2007.01.060085

Lichstein, K.L., Wilson, N.M., & Johnson, C.T. (2000). Psychological treatment of secondary insomnia. *Psychology and aging,* 15 (*2*), 232-240.

Mannucci, E., Ricca, V., Bariciulli, E., Di Bernardo, M., Travaglini, R., Cabras, P.L., & Rotella C.M. (1999). Quality of life and overweight: The obesity related well-being (ORWELL 97) questionnaire. *Addictive Behaviors,* 24(*3*), 345-357. Retrieved April 6 from http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VC9-3WG35PP-4&_user=10&_coverDate=05%2F06%2F1999&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version

=1&_urlVersion=0&_userid=10&md5=3932a79ecccadebf2323ac4d20caf4a3

Morland, K. B., & Evenson, K. R. (2009). Obesity prevalence and the local food environment. *Health & Place, 15*(2), 491-495. doi:10.1016/j.healthplace.2008.09.004

National Center for Health Statistics. (2009). *Health, United States, 2008*. Hyattsville, MD: Retrieved September 25, 2009, from http://www.cdc.gov/nchs/data/hus/hus08.pdf#075

National Institutes of Health. (1998). In National Heart Lung and Blood Institute (Ed.), *Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: The evidence report*. U.S. Department of Health and Human Services.

Obama, B. (n.d.) President Obama's fiscal 2010 budget. Retrieved from http://www.whitehouse.gov/omb/fy2010_key_healthcare/ on November 23, 2009.

Petit, L., Azad, N., Byszewski A., Sarazan, F., & Power, B. (2003). Non-pharmacological management of primary and secondary insomnia among older people: Review of assessment tools and treatments. *Age and Ageing,* 32, 19-25.

Porth, C. M. (2005). Alterations in nutritional status. *Pathophysiology: Concepts of altered health status* (7th ed., pp. 217-238). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Puhl, R. M., Andreyeva, T., & Brownell, K. D. (2008). Perceptions of weight discrimination: Prevalence and comparison to race and gender discrimination in America. *International Journal of Obesity, 32*, 992-1000.

Rohrer, J. E., Vickers-Douglas, K. S., & Stroebel, R. J. (2009). Uncontrolled eating and obesity in adult primary care patients. *Obesity Research and Clinical Practice, 3*(2), 115-121.

Sallis, J. F., & Glanz, K. (2009). Physical activity and food environments: Solutions to the obesity epidemic. *Milbank Quarterly, 87*(1), 123-154.

Scaffa, M. E., Reitz, S. M., & Pizzi, M. A. (2010). Weight management and obesity reduction. In C. Fratantoro, & P. Waltner (Eds.), *Occupational therapy in the promotion of health and wellness* (pp. 253-279). Philadelphia, PA: F.A. Davis.

Shaw, K.A., Gennat, H.C., O'Rourke, P., & Del Mar, C. (2006). Exercise for overweight or obesity. *Cochrane Database of Systematic Reviews, 4,*1-110. Art. No.: CD003817. doi: 10.1002/14651858.CD003817.pub3.

Smith, N.R., Kielhofner, G., & Watts, J.H. (1986). The relationships between volition, activity pattern, and life satisfaction in the elderly. American Journal of Occupational Therapy, 40, 278-283.

USC Division of Occupational Science and Occupational Therapy. (n.d.). *Weight management program*. Retrieved from http://ot.usc.edu/patient-care/faculty-practice/lr-weight-management/

Used 2007 Microsoft Word clipart images for the development of the Scholarly Project.

Westerterp, K. R., & Plasqui, G. (2009). Physically active lifestyle does not decrease the risk of fattening. *PloS One, 4*(3), e4745. doi:10.1371/journal.pone.0004745

Wigg, Dammann, K., & Smith, C. (2009). Factors affecting low-income women's food choices and the perceived impact of dietary intake and socioeconomic status on their health and weight. *Journal of Nutrition Education and Behavior, 41*(4), 242-253.

World Health Organization. (2009). *Obesity and overweight*. Retrieved December 3, 2009, from http://www.who.int/mediacentre/factsheets/fs311/en/index.html