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GenerationACTIVE: Creating Healthier Communities Two Generations at a Time

By

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Submitted to the Occupational Therapy Department

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for the degree of

Master of Occupational Therapy

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Signature of Faculty Advisor

January 5, 2018

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ABSTRACT

Obesity has become an epidemic across all ages, as the prevalence of obesity has nearly tripled over the last 40 years (World Health Organization, 2017-a). Obesity can have a detrimental impact on the health and future of Americans, as many diseases are correlated with obesity. Diabetes, which often occurs secondary to obesity and is the 7th leading cause of death in America, is similarly on the rise (CDC, 2012). To combat these issues, there is a great need for a health promotion initiative that provides individuals of all ages an opportunity to learn about health and wellness, to take steps to improving their health, and to participate in health promoting activities. The objective of this scholarly project was to target health and wellness promotion, specifically regarding obesity in children and diabetes in older adults. Additionally, this program has been designed in support of educational programming identified through the Minnesota Department of Education. To meet these objectives, GenerationACTIVE was created.

GenerationACTIVE is an innovative way to create healthier communities, two generations at a time. Through the use of this intergenerational format, an opportunity for engagement in health initiatives across the lifespan will be provided. An extensive literature review of several databases was performed by the student researchers in order to identify emerging topics of interest and the gaps in current literature revolving around intergenerational programming. The gaps discovered in current literature led the student researchers to generate the innovative product of GenerationACTIVE.

Keywords: occupational therapy, intergenerational program, diabetes, obesity, health

CHAPTER I: INTRODUCTION

In America today, nearly 82% of all individuals do not meet their recommended amounts of physical activity, and less than 34% of adults and an even lower percentage of children eat the daily recommended amount of vegetables (Office of Disease Prevention and Health Promotion [ODPHP], 2017). These trends are causing approximately 34% of adults and 16.2% of children and adolescents to be obese (ODPHP, 2017). Encouraging Americans to eat healthy, meet the daily recommendations for physical exercise, and to achieve and maintain a healthy body weight is critical to improving one's health at any age (ODPHP, 2017). Additionally, encouraging these healthy habits will reduce the onset of chronic diseases such as diabetes. According to the World Health Organization (WHO) (2017-d), health is a resource for individuals in everyday life that allows them the ability to appropriately interact with the environment, recognize self-desires, and to satisfy one's needs. One's overall health is linked to participating in meaningful, daily occupations and occupational therapy focuses on enabling individuals to participate in life activities by maximizing their capacity to function (American Occupational Therapy Association [AOTA], 2017). Therefore, health promotion is a highly relevant area to target in older adults and young children to promote strength and stability of one's everyday resource of health. With that being stated, it would be beneficial for an occupational therapist to structure and implement a health promotion program.

Health promotion is defined by the World Health Organization (2017) as "the process of enabling people to increase their control over, and to improve their health"

(para. 1-b). At this time, the United States is currently utilizing a pharmacological or "curative" approach to health promotion. Through this approach, people are allowing themselves to become ill, and attempting to cure or maintain their health-related issues through pharmacological approaches. It is becoming more recognized that the curative approach does not prevent chronic disease or preserve one's health (Fardet & Rock, 2015). In contrast, the "preventative" approach aims to view health in a holistic way, where chronic disease and one's health are put first. The preventative approach includes education on maintenance and prevention, as well as active involvement and planning, in order to empower an individual to take their health into their own hands (Fardet & Rock, 2015). According to the WHO (2017-b), there are three strategies to prevention and maintenance of disease; Primary prevention refers to taking action aimed at preventing the onset of disease, secondary prevention refers to early detection of a disease which improves the chances of positive health outcomes, and tertiary prevention which decreases the outcomes of a disease once established (WHO, 2017-b).

Health promotion is currently on the rise in the United States, as the nation is working towards promoting and achieving the Healthy People 2020 movement. Healthy People, managed by the U.S. Department of Health and Human Services, provides science-driven objectives to improve the health of Americans (ODPHP, 2017). Healthy People 2020 was launched in December of 2010 and was built on continuous input from diverse groups of individuals and organizations and provided nationwide health objectives for a 10-year span (ODPHP, 2017). According to the ODPHP (2017), the Healthy People 2020 movement follows four overarching objectives which revolve around attaining longer lives through the prevention and maintenance of chronic disease,

improving health of all groups, creating social and physical environments that promote good health for all, and promoting health development and behaviors across all life stages. The Healthy People 2020 movement encourages populations in all life stages to participate in prevention activities and empowers individuals to make informed decisions regarding their health (ODPHP, 2017). According to the AOTA (2011), chronic conditions account for 66% of the nation's health care budget, and more than a quarter of all Americans have multiple chronic conditions" (para. 1). With an aging population, it can be expected that those statistics will continue to increase. Managing chronic diseases and one's health through the use of preventative health care is one way to decrease costs and improve the overall health of the nation.

One solution to effectively increase health promotion and wellness in children and older adults is through the implementation of an intergenerational program (IGP). The IGP experience allows each generation to share their stories, talents, resources, and life experiences, in order to support each other through the means of a budding relationship and community engagement. The specific IGP that will be implemented,

GenerationACTIVE, is an IGP that was created to specifically target managing diabetes in older adults and preventing obesity in younger children. GenerationACTIVE is a seven week long, community-based program that generally focuses on health and wellness promotion strategies. Six of the seven sessions will last approximately 90 minutes, while the seventh session will last approximately 120 minutes. Sessions of this IGP will include creating a healthy snack, creating and discussing goals, engaging in intergenerational physical activity, and educational activities, which all revolve around the topics of health

promotion and wellness. GenerationACTIVE was proposed as an innovate strategy to creating healthier communities, two generations at a time.

The Model of Human Occupation (MOHO) has been utilized to guide the creation of the program, client evaluation, goal setting, and the intervention process. Each session of this program will address one or multiple theoretical concepts from the model. For example, in each of the sessions, the participants will be provided the opportunity to give input and are ultimately in charge of their learning. This type of learning, which provides a sense of volition, allows the participants to learn about health and implement new healthy strategies into their lives. This program also places a large emphasis on the habits and roles of each of the participants by looking at previous habits and how participants can incorporate new strategies into their lives. Each participant is provided the opportunity to utilize or capitalize on their ability to carry out health promoting activities, through the use of hands-on and interactive activities, through the integration of the MOHO.

Subsequent sections of this scholarly project will include a review of the literature, methodology, the GenerationACTIVE intergenerational program product, and a summary. The literature review provides information regarding the current issues of obesity and diabetes, factual information about what IGPs are, their history and benefits, the occupational therapist's role in an IGP, the use of the MOHO, and the current limitations of research. The methodology is a description of the process used to design the GenerationACTIVE product. The GenerationACTIVE product includes assessments, activities, and outlines for the facilitator that are intended to be used to target health and wellness promotion throughout the lifespan. Lastly, the summary will review the main

concepts of this program, limitations, and recommendations for future research development.

Operational definitions of terms utilized in this scholarly project are provided below:

Intergenerational Program: A formally structured and purposeful program that targets a specific form of education through the collaboration of children and older adult participants.

Health Promotion: "The process of enabling people to increase their control over, and to improve their health" (World Health Organization, 2017, para. 1-b).

Obesity: A weight that is higher than what is considered healthy weight for a specific height, as determined by the Body Mass Index, or a measure of body fat based on height (Centers for Disease Control and Prevention, 2016).

Diabetes: An insulin resistance, or a disease in which the body's ability to react to the insulin hormone is impaired (Public Health, 2016).

CHAPTER II: LITERATURE REVIEW

Current Issues

Health promotion has become an emerging topic in the United States due to chronic diseases and health-related epidemics that are continually on the rise. One common chronic disease that is becoming an epidemic in the United States secondary to the lack of health promotion, is obesity. According to Centers for Disease Control and Prevention (CDC) (2016-a), obesity is defined as having a weight that is higher than what is considered healthy weight for a specific height, as determined by the Body Mass Index, or a measure of body fat based on height. There is no definitive answer as to what factor specifically is causing the rise in obesity in the United States at this time, however, there are many theories out there that may contribute to the explanation of the increasing obesity epidemic (Public Health, 2016). According to Public Health (2016), there is a preponderance of evidence that points to two causes that many already suspect: too much food resulting in too many calories, and too little exercise to burn excess caloric intake. To support this proposal, "the U.S. Department of Agriculture (USDA) reports that the average American ate almost 20% more calories in the year 2000 that they did in 1983, thanks, in part, to a boom in meat consumption" (Public Health, 2016, para. 3). Lack of exercise is also a major factor in the obesity epidemic. With the societal decrease of working in fields and on factory floors, comes an increase of individuals who are sitting throughout their workday (Public Health, 2016). The increase in caloric uptake and decrease in physical activity is rationally to blame for the increasing obesity epidemic.

Obesity has been linked to many chronic illnesses and conditions, including diabetes. According to Public Health (2016), diabetes is defined as an insulin resistance, or a disease in which the body's ability to react to the insulin hormone is impaired. This impairment causes high blood glucose levels. Similarly to obesity, the rate of diabetes has risen almost 70% since 1995 (Diabetes Research Institute Foundation, 2016). According to the Diabetes Research Institute Foundation (2016), "diabetes is a leading cause of blindness, kidney failure, amputations, heart failure and stroke" (para. 3). In addition to this fact, living with diabetes places financial, physical, and emotional burdens on the entire family. Globally, diabetes affects more than 380 million people, and it is estimated that by 2030, that number will more than double (Diabetes Research Institute Foundation, 2016). Obesity and diabetes are chronic diseases that can affect anyone, at any point in their life. With this rapid influx of chronic illnesses like obesity and diabetes, it is crucial for everyone to engage in health promotion activities where they are taught about what these diseases are, how they can impact one's life, and how they can be prevented and managed.

Adults

According to the CDC (2016-b), diabetes is one of the top seven leading causes of death. The percentage of Americans with diagnosed or undiagnosed diabetes age 65 and older is at an alarming 25.2%, or 12 million individuals (American Diabetes Association, 2017). While there have been attempts to increase lifestyle and psychosocial interventions in aged care facilities, Baker, Webster, Lynn, Rogers and Belcher (2017), mention in their research that five recent studies have discovered that residents spend the majority of their time sleeping, watching TV, or not doing anything, and only 13% of

older individuals communicate with others or participate in hobbies. The overarching issue is that older adults are becoming more sedentary earlier in life, and are not participating in health promotion-related activities. Health promotion activities are ways in which the older adults may combat obesity, weight gain, and/or the increasing rate of diabetes within their population.

School-Aged Kids

According to the American Diabetes Association (2017), in 2012, 29.1 million Americans had diabetes. While individuals of older age are generally thought to make up this population, it was found that approximately 208,000 Americans under the age of 20 were estimated to have diagnosed diabetes (American Diabetes Association, 2017). The CDC (2016-c) reports that diabetes in children is commonly caused by excess weight gain. Childhood obesity is an epidemic in the United States and the amount of children determined to be obese is continually increasing at a startling rate. Childhood obesity can have a negative impact on the physical and psychosocial development of youth during their formative years (Kugel, Hemberger, Krpalek, & Javaherian-Dysinger, 2016). There are many different factors that can contribute to excess weight gain during childhood, such as eating low-nutrient and high caloric foods and beverages, not getting enough physical activity for the amount of calories one is taking in daily, screen time, family socioeconomic status, community, genetic factors, and media (CDC, 2016-c). Food may also be used as an unhealthy coping strategy when dealing with anxiety, stress, depression, and self-esteem during developmental years, which can lead to obesity (CDC, 2016-c). In addition to these factors, weight gain has also been found to be indirectly caused by the community in which a child resides (CDC 2016-c). According to the

ODPHP (2017), addressing environmental factors, such as creating safe places for children to play and be active, and increasing access to healthy foods in communities, is a critical component to improving the nation's obesity epidemic.

Solutions for Prevention of Obesity & Management of Diabetes

There are many ways that one could target the prevention of obesity. For example, one could prevent obesity through lifestyle changes in diet, exercise, support systems, or simple education. According to Sanford Healthcare (2016), an individual should consume at least five to six servings of fruits and vegetables daily, and choose whole grain foods, versus highly processed foods. In addition, an individual should accumulate approximately 30 minutes of physical activity as an adult, and up to an hour of physical activity as a child, most days of the week, or as often as possible. Furthermore, is it even more beneficial for the prevention of diabetes if the individual reduces their time in front of a television or a computer to less than two hours per day (Sanford Healthcare, 2016). According to the American Psychological Association (2017), it has been proven that a group approach helps when combatting weight loss, and that it is easier to stick with a weight loss plan when you have support. Forms of support may include, but are not limited to, exercise groups or clubs, fitness memberships, family, friends, community support groups, or online support groups (American Psychological Association, 2017). Support systems allow individuals to share diet and exercise tips, inspiration, and encouragement (American Psychological Association, 2017). According to the American Psychological Association (2017), education can target the prevention of diabetes through teaching individuals or communities about what obesity is, how it can impact one's future health, and through educating about healthy diet and exercise recommendations.

Management of diabetes can also be achieved through similar approaches to those of obesity. Shrivastava, Shrivastava and Ramasamy (2013) mention that education is

equally important for diabetes management, however, the education must be transferred to action or self-care activities in order to fully benefit the individual. Examples of selfcare activities with regard to diabetes management may include adhering to a diet-plan, avoiding certain foods, increasing one's exercise, blood-glucose monitoring, and foot care (Shrivastava, Shrivastava and Ramasamy, 2013). According to Fujiwara, et al., (2011), foot complications, such as peripheral neuropathy and arterial disease, foot ulceration, and gangrene are common among diabetic patients. Because these complications are common, self-care activities, including foot care activities, are beneficial approaches for the management of diabetes. According to Shrivastava, Shrivastava and Ramasamy (2013), there are seven essential self-care behaviors in people with the diagnosis of diabetes which predict positive outcomes; Healthy eating, being physically active, blood sugar monitoring, compliance with medications, good problemsolving skills, healthy coping skills and risk-reduction behaviors. It has been identified that these behaviors positively correlate with good blood sugar control, reduction of complications, and improvement with quality of life (Shrivastava, Shrivastava & Ramasamy, 2013). By participating in these self-care behaviors that have been correlated with positive health outcomes, one can actively participate in their own care. By participating in one's own care, an individual has the ability to take charge of own their life, and ultimately, be the determinant for the future of their own health.

Individuals have the responsibility to take their health into their own hands, yet, some believe that the health care system may restrict their ability to participate in preventative programs. However, there are multiple programs within the United States health care system that individuals may have access to. The U.S. Centers for Medicare

and Medicaid Services (CMS) (2017) estimated that Medicare spent nearly \$87 billion more on patients with diabetes in the year of 2016, than they would have spent if patients did not have diabetes. With this overwhelming, preventable number, the CMS developed the Medicare Diabetes Prevention Program. Upon successful completion of the model test under Health Care Innovation Awards, the Medicare Diabetes Prevention Program expanded model was announced in early 2016 as, "a structured behavior change intervention that aims to prevent the onset of type 2 diabetes among Medicare beneficiaries diagnosed with pre-diabetes" (CMS, 2017, para. 2). Participants enrolled in this program complete a series of group-based, classroom trainings focusing on "longterm dietary change, increased physical activity, and behavior change strategies for weight control", with monthly follow-up appointments upon program completion (CMS, 2017, para. 4). Along with the Medicare Diabetes Prevention Program, attempts to prevent chronic diseases have been included in the Affordable Care Act. Currently, there are three services that the ACA requires insurances to cover, whether an individual is under private or public insurance. The U.S. Preventative Services Task Force (USPSTF) recommends the following: "screening for type 2 diabetes in asymptomatic adults with sustained blood pressure greater than 135/80", "intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease", and "that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults" (Derksen, 2012, para. 7). The United States health care system has identified a major issue within our society, and has begun to provide services for Americans when they have reached a pre-disposition in attempt to prevent the problem

from occurring. Even though this is a step in the right direction, the Minnesota Department of Education has also started to take steps towards a healthier nation by implementing health promotion programs into the public educational curriculum at a young age.

For the purposes of this proposed program, the researchers delved deeper into the Minnesota Department of Education (MDE). At the beginning stages, this program will be designed to take place within the State of Minnesota with hopes that the program will be generalizable to a larger geographical region. The MDE has taken the initiative to develop multiple programs that work to improve nutrition and activity levels for children and adolescents inside and outside of school. Minnesota schools, along with many other schools throughout the United States, currently participates in a federally funded program known as the "National School Lunch Program" (U.S. Government Publishing Office, 2017). The overall focus of this program is to protect the health and well-being of children, and to encourage consumption of nutritious foods (U.S. Government Publishing Office, 2017). Ways that this has been incorporated into schools has been through providing healthier snacks in school, offering fruits and vegetables, reducing sodium, and serving whole grain-rich foods (United States Department of Agriculture, 2017). Healthy eating is imperative for proper growth and development, as it supports the prevention of obesity and other chronic health conditions (MDE, 2016-a). Education about nutrition has also been a technique utilized in the classroom, the cafeteria, and during after school activities to help children learn about how the food they are eating is grown, how it can support their growth and development, and how they can work to have healthy eating habits that last a lifetime (MDE, 2016-a). As for the nation's schools coming together to

improve our youth's nutrition, schools throughout the State of Minnesota are coming together to "make being active a way of life for our kids" (Minnesota Department of Health, 2017, para. 1-a). The Active Schools Minnesota initiative is a partnership between the Minnesota Department of Education and Health that is supported by the Statewide Health Improvement Partnership [SHIP] (Minnesota Department of Health, 2017-a). Within this initiative, Minnesota schools are continually increasing the amount of physical activity incorporated into the school day through "quality physical education, active classrooms, active recess, and physical activity during out-of-school time" (Minnesota Department of Health, 2017, para. 4-a).

Children who have a healthy diet, exercise regularly, and maintain a healthy body weight are more likely to achieve normal growth and development, have strong immune systems, and have improved bone and heart health (ODPHP, 2017). However, a healthy diet, daily physical activity, and maintaining a healthy body weight are the foundations to health at every stage of life (ODPHP, 2017). Providing preventative services in children will decrease the risk of developing diabetes, heart disease, and chronic obesity in adulthood (ODPHP, 2017). Along with preventative services in children, promoting maintenance of a healthy weight, regular exercise, and a healthful diet in adults can help reduce their risk for diabetes and premature death (ODPHP, 2017).

Intergenerational Programs

One solution to effectively increase health promotion in children and older adults is through the implementation of an intergenerational program (IGP). Successful IGPs are starting to become an increasingly popular means of health promotion in the older population, however, at this time, they are still scarce. According to Generations United

(2016), IGPs are used to increase positive cooperation, interaction, and exchange between different generations of people within a formal and structured context. The IGP experience allows each generation to share their stories, talents, resources, and life experiences, in order to support each other through the means of a budding relationship and community engagement. IGPs provide benefits such as health promotion for both the older adults and children, sustainability, eliminating stereotypes, and providing generativity in the later moments of life. Increasing generativity and providing opportunities for health promotion in all communities can help counteract the societal trends that are leading to social isolation, loneliness, decreases in functional health, and increases in medical expenses.

History of Intergenerational Programs

With the limited amount of research on IGPs, nearly every study that has been conducted with an IGP as the intervention, has the overarching goal of increasing social participation, quality of life, and decreasing age-related stereotypes as an outcome. However, IGPs continue to adapt to meet the needs of each generation and each IGP has had its own unique means of reaching the generation-specific goals. For example, in a systematic review of IGPs with persons with dementia, there were seven different types of programs identified that included: art, music Montessori, education, mentorship, narrative-based activities, and recreation (Galbraith, Larkin, Moorhouse, & Oomen, 2015). Through the search of literature, there were two studies carried out involving physical health attributes such as physical exercise and nutrition education (Strand, Francis, Margrett, Franke, & Peterson, 2014; Werner, Teufel, Holtgrave, & Brown, 2012). The Active Generations program explored nutritional education and activity, while

the LIFE Program utilized wellness programming and exercising to examine the effects on participation in physical activity and subjective health (Strand, Francis, Margrett, Franke, & Peterson, 2014; Werner, Teufel, Holtgrave, & Brown, 2012).

Benefits of Intergenerational Programs

There are multiple studies available in current research that have identified that IGPs are beneficial for both older adults and children. With regard to older adults, research has determined that IGPs have many positive benefits, including cognitive stimulation, an increase in subjective health, increase in grip strength, and an increase in sense of coherence (Chippendale & Boltz, 2015; Galbraith, et al., 2015; & Murayama et al., 2015). The most common and advantageous benefits of IGPs include an increasing sense of purpose, usefulness, and the opportunity to inspire the next generation (Chippendale & Boltz, 2015; Galbraith, et al., 2015). Sakurai et al., (2016) discovered that overall meaning of life and functional capacity can be increased in older adults through the use of successful IGPs that create a sense of generativity by providing an opportunity for the older adults to teach the younger population about life. It is also hypothesized that the benefits provided from IGPs may increase the ability for older adults to remain at home longer or decrease their length of stay in long-term care facilities (Chippendale & Boltz, 2015). Therefore, developing effective and sustainable IGPs, can increase overall meaning of life, functional capacity, and may provide a means for older adults to remain at home longer (Sakurai et al., 2016).

There are a few ways in which children will benefit from their participation in IGPs according to what existing literature there is in this area. According to Chippendale and Boltz (2015), IGPs can be a means of short-term stress reduction in school aged

children. Fair, Davis, and Fischer (2011) found that 5th-grade students who participated in an urban service learning project, which was similar to an IGP, made greater gains on standardized tests, had fewer absences, and experienced fewer suspensions. In addition to these academic benefits, Galbraith, et al. (2015) stated that participating in IGPs have also been proven to increase "self-esteem and confidence, specific skills necessary for interacting with persons with dementia, patience, sensitivity, compassion, respect, empathy, accountability, problem-solving, and social responsibility" (p. 36). According to Murayama, et al. (2015), it is important that children continue to develop a deeper understanding for the older adults within their community, so that they can receive positive academic support and reduce their potential for ageism. It is factual that the older adult and children populations benefit from engagement in IGPs. The following will discuss the positive benefits that impact the older adult and child populations similarly.

Mutual Benefits

Ways in which both the older adult population and the children can benefit from their engagement in IGPs include their increase in community and social engagement, the opportunity to be active, the chance to form new relationships, and the potential to reduce stigmas. According to Fair, Davis and Fischer (2011), IGPs have provided an opportunity for both of these populations to debunk stereotypes, and additionally, gain an increased self-worth. These programs encourage positive learning opportunities and allow both populations to gather a greater understanding and acceptance for each other. Fair, Davis and Fischer (2011), identified that after children take part in IGPs, they become better members of the global society as they become familiar with the fact that the elders should not be categorized or stereotyped, like anyone else, within their community or society.

Werner, Teufel, Holtgrave, and Brown (2012) explored an IGP called Active Generations, initially piloted in 2006 in Texas, which consisted of a 10-lesson intergenerational childhood obesity prevention program. Each session held lasted approximately 90-minutes and was comprised of an instructor-led nutrition lesson, handson activities, the preparation and consumption of nutritious snacks, and 20-30 minutes of age-appropriate physical activity. At the end of each session, the participants went through a wrap-up, which included reviewing the main ideas, in order to reinforce the session's main ideas and encourage further involvement in the home. The researchers involved with this study concluded that the Active Generations program had further reinforced the lessons learned in school-based prevention programs and national campaigns. The researchers also concluded that the Active Generations program significantly increased comprehension and the link between nutrition and disease, as well as understanding that positive health-related behaviors can lead to a decrease in many types of chronic diseases (Werner, Teufel, Holtgrave, & Brown, 2012). This proposed IGP will be similar to the Active Generations program in ways such as incorporating physical activity, nutrition education, and concluding sessions with reviewing main ideas. However, the proposed IGP will additionally focus on social capital, meaningful occupations, habits and routines, and will honor a holistic approach. The holistic approach of this IGP will target not only the prevention of obesity in the children participants, like Active Generations did, but the management of diabetes in the older adult participants as well. In addition, this IGP will also differ as it will utilize a smaller group of participants for developing intimacy, creating stronger bonds, and growth. As it is evident that IGPs are beneficial to both populations, it is important now to understand

why an IGP would be beneficial for health promotion purposes, who will implement these programs, and how their role makes them the best fit for producing and conducting a health-related IGP.

Why an Intergenerational Program?

As previously mentioned, IGPs provide many benefits for people across the lifespan. These benefits range from improving physical health and psychological health, to improving one's overall quality of life. These programs have also managed to create longstanding relationships and mutual respect between individuals of different generations outside of the family, which is uncommon in our society today. Schools across the nation have even started to incorporate programs for students to develop and maintain partnerships with individuals within the community and community agencies. The Minnesota Department of Education (2016-b) has started to take initiative to develop partnerships with businesses, colleges, and non-profit organizations throughout communities. The Minnesota Department of Education (2016-b) and schools within the state have come to understand the advantages of these partnerships not only benefit student academia, but have also built and strengthened communities. The development of these school and community programs create a sense of belonging for every age group within communities. This sense of community is called *social capital*. Social capital is one of the most important reasons an IGP would be the most beneficial way to implement and provide opportunities for health promotion in communities, as the WHO (2009) has identified that the aim of health promotion is to influence individual elements of health while building social capital.

Social Capital

Social capital is an ecological resource that is available to everyone (Elgar et al., 2011). The core beliefs of social capital are valuing social networks, reciprocity of social norms and values, and mutual trust in community relationships (Coleman, 1988; Elgar et al., 2011). According to Putnam (2000), there are two aspects of social capital that influence relationships between individuals and groups of people. The first element of social capital is inward-looking and is also known as *bonding*. In general, *bonding* brings people with similar characteristics together and reinforces social identity, reciprocity, and trust (Putnam, 2000). The second element of social capital is outward-looking and is also known as *bridging*, which is common between groups that are dissimilar but have distant commonalities (Elgar et al., 2011; Putman, 2000). According to Putman (2000), *bonding* social capital can help individuals meet their basic needs, and *bridging* social capital can be beneficial to help people achieve advanced goals through the use of social resources.

Social capital has often been found to be an underlying rationale for many IGPs by providing opportunities to expand social connections and enhancing more positive perceptions of the two different ends of the generational spectrum (Thompson & Weaver, 2016). Previous research has even identified that IGPs have enhanced the values of trust and reciprocity, which are vital components to social capital (De Souza, 2003). An IGP targeting health promotion would emphasize *bridging* social capital by bringing together two dissimilar groups that have the common goal of preserving the resource of their own health. The ability to bring two groups together that essentially had no contact prior, is a powerful form of social capital itself (Laser & Leibowitz, 2009).

The growing of social capital begins at birth when a sense of trust is established between an infant and their caregiver (Laser & Leibowitz, 2009). As a child grows, they begin to trust the world around them and start to develop multiple social networks, which increases their income of social capital. For a child, having positive social capital gives them a greater sense of self-efficacy, which ultimately, increases their ability to "help create positive outcomes in their future" and also, "to help prevent negative circumstances from occurring" (Laser & Leibowitz, 2009, pp. 96-97). Lau and Li (2011) identified that children between the ages of 11-12 that had family and school social capital had an overall positive subjective well-being. Ultimately, a "youth's human potential" can be attained by increasing social support and the bridging of social networks (Laser and Leibowitz, 2009, p. 99).

As social networks continue to develop across the lifespan, the benefits of social capital are just as imperative in the lives of older adults as they are in children. Social capital can be a strong predictor in overall quality of life for older individuals, as those who have access to and value social capital are less vulnerable to a low quality of life (Moor, de Graff, & Komter, 2013). In previous studies, social capital has been identified to decrease the rate of memory loss, risky behaviors, and loneliness, as well as increase cognitive functioning, functional mobility, and overall quality of life (Ertel, Glymour, & Berkman, 2008; Poulsen, et al., 2014).

Clearly stated, social capital is continually developing across the lifespan and provides changing benefits to individuals as they age. Nonetheless, social capital may be enhanced through community participation and by having intergenerational and mutual support (Koutsogerogou, et al., 2014). Koutsogerogou, et al. (2014) also identified that

social capital may play an imperative role in health promotion through community participation, which ultimately, provides a unifying rationale for an intergenerational health promotion program.

Occupational Therapy's Role

An occupational therapist's role in intergenerational programming would include using their ability to understand complex and dynamic interactions between individuals, their environments, and the tasks they complete in their daily lives (AOTA, 2015). In addition, an occupational therapist would also use their ability to understand how these synergies affect health and wellness. According to the AOTA (2015), occupational therapists also understand the importance of habits and routines, and how these skills promote the enactment and maintenance of healthy behaviors in one's life. In combination, all of these skills enable occupational therapists to facilitate positive progress. For example, matching the person's skills to the demands of an activity, incorporating environmental supports, diminishing barriers, and proposing solutions to challenges associated with health status, habits, and routines, are all ways in which an occupational therapist may play a part in an occupational therapy-based IGP (AOTA, 2015).

Those who facilitate IGPs must be able to inspire motivation for program involvement, and encourage sustained attention from each member of the group. The facilitator must also be able to combine the strengths of both generations, and ensure that both generations are always the main focus of the program. Occupational therapists are specifically trained to mode match, or match their way of teaching and communicating, to the mode reflected by the group dynamics (Taylor, 2008). Occupational therapists have

the ability to adapt their teaching style and plans when working with groups, which is important because no person is predictable, especially when in a group setting with individuals who are different from themselves. Lastly, occupational therapists are trained in the ability to understand the diversity of individuals across the lifespan, and are able to draw in from evidence-based models and frames of reference for further understanding and direction, which ultimately makes them desirable to facilitate IGPs.

Occupation-Based Model

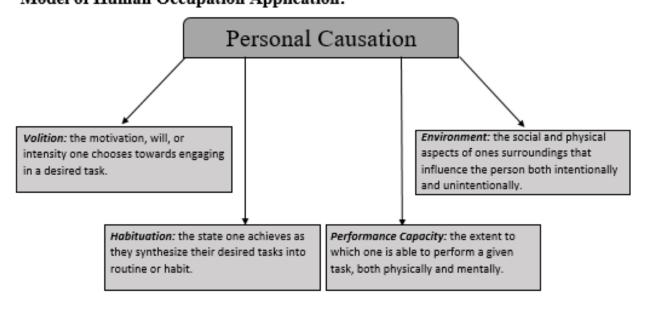
At this time, there is very limited research within the history of IGPs that includes theory- and evidence-based models. In current research, some of the most common theories and models that have been used include Erikson's developmental stages, Contact Theory, and social learning theories. For the purposes of this occupational therapy, health promotion IGP, the Model of Human Occupation (MOHO) will be used to frame and inspire this intervention process.

The MOHO has been one of the most widely used occupation-based models by occupational therapists (Crepeau, Cohn, & Boyt-Schell, 2009). According to O' Brian (2017), the MOHO utilizes a systems theory approach to explain how the many factors of occupation work together. The MOHO purposes that occupational performance is the result of an interaction of person factors and environment. According to the MOHO, aspects of the environment consist of both the physical and social environments. O'Brian (2017) also mentions that in the MOHO, "changes in any personal factor or the environment may elicit a behavioral change and facilitate new patterns of performance" (p. 96). The four main concepts of MOHO, volition, environment, habituation, and performance capacity, are understandable to occupational therapists and are generally

easily able to be identified within a client (O'Brian, 2017). These four concepts have been utilized in framing the creation of the program, client evaluation, goal setting, and the intervention process. In addition to these four overarching terms, the term of personal causation will also be considered. Personal causation is the process in which an individual considers fulfillment of their abilities and potentials, and utilizes these realizations as motivation to pursue their daily life tasks (O'Brian, 2017). Each session of this program will address one or multiple theoretical concepts from the MOHO. For example, in each of the sessions, the participants will be provided the opportunity to give input and are ultimately in charge of their learning. This type of learning, which provides a sense of volition, allows the participants to learn about health and implement new healthy strategies into their lives. Using this model would be beneficial to incorporate in an IGP focusing on health promotion because in order for one to change, there must be volition and desire present. For these stated reasons, the MOHO will be used to guide the creation of the program, client evaluation, goal setting, and the intervention process. The volitional aspect of the MOHO will be the mechanism of change and how change is maintained, as the participants of this IGP transition from contemplating change to actually making lifestyle changes that ultimately increase their health, wellness, and state of positive personal causation. For further explanation on how the core aspects of the MOHO will be utilized in this program, please refer to Figure 2.1.

Figure 2.1

Model of Human Occupation Application:



Limitations of Research

The review of the current literature showed that there are few IGPs that have been implemented by occupational therapists, and limited IGPs have had the overall goal of combatting chronic diseases like obesity and diabetes or promoting the health of participants. While educators and healthcare professionals may teach children and adults in care centers, academic centers, or communities how to prevent unhealthy habits and routines, there are very few programs to the researchers' knowledge that focus on combatting obesity and diabetes, through bringing together older adults and young children to focus on health and wellness initiatives. While completing the review of literature, the researchers did not find any evidence of negative results from participating in an IGP, however, the researchers did come across literature that reported neither negative, nor positive results of participating in an IGP. In addition to these limitations, there were very few quantitative studies about IGPs and IGP participation, as most of the

studies completed were qualitative in nature. Furthermore, a majority of the IGP studies were conducted outside of the United States geographical region.

Conclusion

To prevent chronic diseases such as obesity and diabetes, it is imperative that the newly emerging topic of health promotion is emphasized and put into action at a primary care level. Health promotion is an important topic, as health is what allows an individual to appropriately interact with their environment and satisfy their needs. The review of literature revealed that IGPs have significant benefits for both the younger and older adult generations. IGPs, in combination with the skilled services of an occupational therapist, have the potential to be a valuable agent of change within the emerging topic of health promotion and the shifting preventative approach to health and wellness. An IGP focusing on health promotion between school-aged children and older adults will not only increase community and social engagement, but it would also be an agent for debunking stereotypes, reducing stigmas, increasing social capital, and improving the overall health and wellness of the nation. The overall goal of this program will be to provide schoolaged children and older adults the opportunity to engage in a health promotion-based IGP that will focus on preventing and managing obesity and diabetes, through complementary skilled occupational therapy services.

CHAPTER III: METHODOLOGY

The idea of an occupational therapy-based intergenerational program stemmed from a small program planning assignment within course curriculum at the University of North Dakota's occupational therapy program. Through this assignment, the student researchers were able to begin formulating a basis for research and an idea of how to carry out a scholarly project based on this topic. A search of peer-reviewed journal articles, in the English language, about intergenerational and health promotion programs, was completed using EBSCO databases, CINHAL, PubMed, OT Search, PyschInfo, and the American Journal of Occupational Therapy. A thorough search of curriculum relating to health promotion and community building within the Minnesota Department of Education was also conducted, to identify a niche for this program. As data was gathered on the scope of occupational therapy practice and intergenerational programs, the student researchers identified two gaps in the literature. One gap pertained to the lack of literature regarding occupational therapists facilitating intergenerational programs, in general. The student researchers were able to locate two pieces of literature regarding the topic of health promotion in an intergenerational program, however these programs only focused on health promotion in one age-group, thus creating a second gap in the literature. From this, the student researchers deemed it to be necessary to create an intergenerational program that targets the prevention of obesity in children and the management of diabetes in older adults.

After the extensive literature review was conducted, a product for the implementation of a school-based intergenerational program that promotes generational health and wellness through the use of creating student and community partnerships, occupation-based education, and physical activity was developed. The Model of Human Occupation was chosen to guide the development, implementation, and evaluation of this product program. Each intervention throughout this program was handcrafted by the student researchers through the acquired knowledge base about obesity prevention and diabetes management, utilizing the *Occupational Therapy Practice Framework*, and the concepts and framework of the MOHO. The nutrition consumption and physical activity portions of the interventions were found using online internet searches and previous knowledge from the researchers' experiences. Each aspect of the interventions were carefully analyzed and developed to fit the needs of this program and the generational participants.

Outcome measures for the effectiveness of this program were identified throughout the review of literature and include the Health Enhancement Lifestyle Profile and the Pizzi Health Weight Management Assessment. These assessments measure occupational constructs such as habits and roles and assess problem areas that were also identified throughout the literature review. The participant satisfaction measure of the program was adapted from the student researchers' original version in the program planning assignment. Upon completion of the product, succeeding sections of the scholarly project were finished and finalized.

CHAPTER IV: PRODUCT

GenerationACTIVE: Creating Healthier Communities Two Generations at a Time

Jerrica Thiel, MOTS

Mallory Manecke, MOTS

Breann Lamborn, MPA

The University of North Dakota

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Introduction

No matter what the age, it is always appropriate to work on improving overall

health and well-being through health promotion strategies. Improving health and well-being assists with reducing the risk of life disabilities and inconveniences.

GenerationACTIVE is an occupation-based, intergenerational program that aids to increase awareness of health and wellness, and provide strategies that encourage a healthy lifestyle, two generations at a time. GenerationACTIVE strongly values increasing an individual's motivation, will, and all-encompassing ability to embrace a healthy occupational identity.

To strive for healthier, trusting, and supporting communities, two age groups of participants will be involved in this program. The formation of budding relationships will be encouraged between sixth grade students and community-dwelling older adults who reside within an independent living facility or a retirement community.

Inclusion criteria for the students consists of those who are enrolled in a school district that value the development of strong collaborations between schools, families, and communities. Exclusion criteria for the students will include students who have a history of behavioral disorders and/or violent outbursts, and/or students who experience mild to severe cognitive impairments. An experienced occupational therapist will identify 10 children who meet the inclusion and exclusion criteria to be a part of this program. In order for a child to participate in this program, parental consent and child assent will need to be attained.

The inclusion criteria for the older adult participants will consist of those who are considered to be independent within their place of residence, who are 55 years of age or

older, and who are physically and cognitively able to successfully and actively participate in all of the program sessions. The exclusion criteria include individuals with behavioral difficulties, safety concerns, and/or have limited cognitive abilities that would affect their ability to actively participate in the program. An experienced occupational therapist will recruit 10 older adults from a retirement community who meet the inclusion and exclusion criteria, and are deemed appropriate to be a part of this program.

An occupational therapist or occupational therapy student with a background or emphasis in gerogogy and pedagogy, group dynamics, occupation-based practice, and the Model of Human Occupation is designated to facilitate the implementation of GenerationACTIVE. The facilitator will be responsible for encouraging intergenerational relationships and health promoting behaviors, as well as facilitating group-based learning, obtaining child assent, parent consent, older adult consent, and administering satisfaction surveys and pre- and post-tests. The facilitator will also be responsible for collaborating with the director of the designated facility of program implementation for gathering necessary supplies and finding appropriate space.

Data regarding the effectiveness of GenerationACTIVE will be gathered from all participants via pre- and post-test measures. The pre- and post-test for the older adults will generate an understanding of their habits and routines, and ways in which they participate in various health promoting behaviors. Included in this assessment are the subjects of exercise, diet, social and leisure activities, activities of daily living, stress management, potential risk behaviors, and other health promotional topics. The information gathered from this assessment will help determine the outcomes of this program for the older adults. Similarly, the pre- and post-test measure for the students

will generate health factors related to weight management by identifying motivation to change and stress levels regarding health topics. In addition to the pre- and post-test measures, satisfaction surveys will be administered to each generation upon completing GenerationACTIVE. These surveys will determine overall satisfaction of the program structure, activities, and participant involvement.

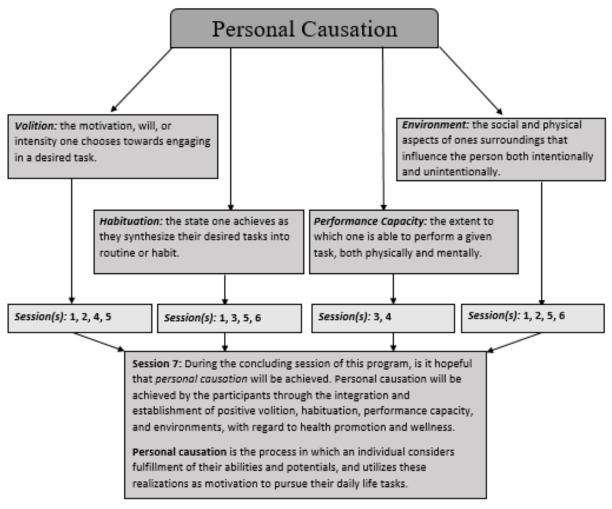
Consent for the students' parents and older adults are included and are required to be completed prior to the start of this program. The consent forms provide information for the participants regarding the benefits, potential risks, and overall goal of the program. The consent form also informs participants that they are able to withdraw from the program at any time without penalty or effect on school grading or participation within the facility in which they reside. Assent from the child will be obtained by the experienced occupational therapist prior to the start of this IGP.

The daily schedule of this IGP will include creating a snack, creating and discussing goals, engaging in intergenerational physical activity, and educational activities which all revolve around the topics of health promotion and wellness. Each snack will be easy to create, healthy, and well-rounded with the inclusion of fruits and vegetables. Weekly goals will be established for the participants to carry out until the following session, where a discussion will take place based on if they met their goals or not. Implementing goals into this IGP will assist with encouraging individual follow through with healthy habits, choices, routines, and behaviors. Physical activity will be implemented during each session to encourage and inspire individuals to actively engage in physical activity. Educational activities will consist of information that is both generation-relevant and pertinent to these individuals in terms of encouraging the

establishment of healthy habits and routines. The intergenerational aspect of this program will influence the collaboration, teamwork, and sharing of ideas and stories between older adults and school-aged children throughout their process of making positive health promotion and wellness lifestyle changes.

The sessions of this program have been influenced by both the Model of Human Occupation (MOHO) and social capital. Aspects of the MOHO that have been integrated into one or more sessions of this program include volition, habituation, performance capacity, social and physical environment, and personal causation. Aspects of social capital that have been integrated into one or more sessions of this program include teamwork, collaboration, trust, relationship building, and emotional reciprocity. The MOHO and social capital have both been chosen to influence the sessions of this product because they both consider a positive social environment, motivation, and positive outcomes. The following information will describe how the MOHO and social capital are integrated into each program session, the facilitator's role of motivation, encouragement, and goal setting, and specific signs the facilitator is to look for within the participants that will demonstrate advancement and achievement through the integration of the MOHO and social capital. Please refer to the figure below and the following information for a visual representation and description of how the MOHO will be incorporated into this program plan.

Model of Human Occupation Application:



Model of Human Occupation Session Application

Session 1: The social environment, volition, and habituation will be addressed as underlying factors of the initial session. Through the administration of assessments, the participants' thoughts, feelings, and habits regarding health promotion and wellness will begin to be assessed. The facilitator of this program will assist with the establishment of supporting relationships within the group by creating a sense of belonging within each participant. Throughout the snack and activity portions of this session, the facilitator should begin to see relationships forming between the intergenerational pairs through laughter, storytelling, and team-work.

Session 2: The social environment and volition will be addressed as underlying factors for this session. The facilitator of this program will continue to establish a supportive environment between the two generations as each participant becomes more comfortable and trusting of the others. The facilitator will also begin to elicit volition by identifying participants' desired occupations, activity choices, and what they value within their lives. The facilitator will begin to see each of these aspects developing throughout the session as participants begin to share more about themselves, laugh, work together, and initiate conversations.

Session 3: Habituation and performance capacity will be addressed as the underlying factors for this session. At this time, the facilitator of this program will begin to stimulate participants' subjective ability to identify important aspects of nutrition. The facilitator will provide participants with strategies that enable them to develop meaningful patterns, which will allow them to engage in health promoting behaviors more effectively and efficiently. The facilitator will begin to recognize aspects of these factors developing throughout the session as individuals are able to identify areas in their lives where they are able to incorporate new health promoting strategies, and develop a new sense of confidence.

Session 4: Volition and performance capacity will be addressed as the underlying factors for this session. At this time, the facilitator will capitalize on stress-reduction activities that participants already utilize in their day-to-day lives, but will also encourage further development of other healthy stress-reduction techniques that may be incorporated. Capitalizing on current strategies will help create a sense of identity and confidence for the participants, which will ultimately increase the client's motivation and willingness to actively and consistently participate in stress-reducing occupations. The facilitator will begin to see aspects of these factors developing further as participants' begin to independently identify and incorporate useful strategies.

Session 5: Volition, habituation, and the physical environment will be addressed as the underlying factors for this session. The educational components of this session incorporate information that may be of concern to the participants. The facilitator will want to capitalize on these areas of concern to encourage participants to re-evaluate their identified unhealthy values within their lives. By re-evaluating their values, the opportunity for incorporating new habits may be established. The facilitator will provide participants with healthy strategies that incorporate positive values, habits, and a positive physical environment. The facilitator will begin to see aspects of these factors developing as participants begin to reflect on the amount of food they have eaten, how often they eat food that comes from an unknown source, and their decision to take positive action for themselves.

Pre-Test/Post-Test for Students

In order to determine the effectiveness of this program for the student participants, the Pizzi Healthy Weight Management Assessment (PHWMA) will be administered prior to the start of this program and upon completion of this program. The PHWMA is the first occupation-centered assessment to incorporate content related to goal setting, self-reflection, and self-efficacy related to weight management in students (Kuo, Pizzi, Chang, Koning, & Fredrick, 2016). The PHWMA has established content and face validity, along with clinical usefulness (Kuo, Pizzi, Chang, Koning, & Fredrick, 2016). The PHWMA includes 24 items that identify health factors related to weight management (Kuo, Pizzi, Chang, Koning, & Fredrick, 2016). There are four parts to completing this assessment and they are described as follows: 1. On a Likert scale of 1-5 students will rate whether they want to make a change in this area or do not want to make a change in this area; 2. On a Likert scale of 1-3 students will rate their stress level in each of the areas; 3. Students will answer yes or no indicating whether they want to work on it or not; 4. Students will determine what can be done in each identified area to improve (Kuo, Pizzi, Chang, Koning, & Fredrick, 2016). There will be approximately 30 minutes to complete this assessment and the facilitating occupational therapist can assist the students through the assessment, as necessary.

Kuo, F., Pizzi, M. A., Chang, W., Koning, S. J., & Fredrick, A. S. (2016). Exploratory study of the clinical utility of the pizzi healthy weight management assessment (PHWMA) among burmese high school students. *American Journal of Occupational Therapy*, 70(5). doi:10.5014/ajot.2016.021659

Pre-Test/Post-Test for Older Adults

In order to determine if this program was effective in supporting the growth of a healthier lifestyle, the Health Enhancement Lifestyle Profile (HELP) will be administered prior to the start of the program, as well as upon completion of the program. Through a series of research studies the HELP's content validity was supported, and acceptable to good internal validity was identified, along with acceptable to good internal consistency with reliability coefficients of .72 to .92 (Hwang & Peralta-Catipon, 2015). The HELP is a self-report questionnaire designed for older adults ages 55 and older to generate an understanding of older adult's "habits and routines in various health-promoting behaviours" (Hwang & Peralta-Catipon, 2015, p. 2). This assessment asks older adults to rate themselves on a 0-5 point rating scale about the subjects of "exercise, diet, social and productive activities, leisure, activities of daily living, stress management and spiritual participation, and other health promotion and risk behaviors" (Hwang & Peralta-Catipon, 2015, p. 2). To score this assessment, one must apply a numerical value to each scale. A total of 40 points is possible for each section of the assessment, equaling a total of 280 points (Hwang & Peralta-Catipon, 2015). The more points an individual has, the healthier their lifestyle is. This assessment will take approximately 20-30 minutes to complete (Hwang & Peralta-Catipon, 2015).

Hwang, E. & Peralta-Catipon, T. (2015). Health enhancement lifestyle profile (HELP) & HELP screener older adult version (age 55 and older): Guide for clinicians. Retrieved from https://www4.csudh.edu/Assets/CSUDH-Sites/OT/docs/EricHwang-Health-Enhancement-Lifestyle-Profile-(HELP)-Guide-for-Clinicians.pdf

Child Assent

Verbal assent will be acquired from each student prior to the beginning of this program. Each aspect of the program will be explained in terms that the students will understand. This will include a general overview of the sessions and their role in partnering with an older adult throughout the program in order to develop a partnership. During the time of gaining assent, the children will have the opportunity to ask any questions or relay any concerns they may have. Students will also have the opportunity to decline to participate in the program.

Parent Consent Form

Title: GenerationACTIVE: Creating Healthy Communities Two Generations at a Time

Department: Occupational Therapy

Introduction:

Your child has been invited to participate in the GenerationACTIVE program that is working towards creating healthier communities. This program will allow your child to build a healthy relationship with an older individual from the community, educate your child about nutrition and healthy habits, create and consume nutritious snacks, and will provide an opportunity for your child to participate in 30 minutes of intergenerational physical activity.

How Many People will Participate?

The targeted group size for this program consists of 10 school students and 10 older adults that reside independently within a retirement community, equaling a total of 20 participants.

How Long will the Program Last?

This is a seven-week program that will meet one time per week for 90 minutes each time.

What are the Risks of this Program?

There may be some risks associated with your child participating in this program, however, they are minimal. Due to the nature of the program topics and discussion questions being related to your child's health, experiences, and feelings, he/she may encounter aversive emotions or emotional distress. In addition to psychological risk, there is risk for physical harm. All measures will be implemented to avoid physical harm, however there is a minimal chance your child may experience physical discomfort or injury during the 30 minute physical activity sessions.

What are the Benefits of this Program?

One can expect the following possible benefits of a child participating in this program: short-term stress reduction, increase in self-esteem and confidence, increased school performance, increased attendance, increase in health awareness, and self-awareness of daily healthy habits. Each of these benefits will contribute to the prevention of obesity and the management of diabetes, however, there is no guarantee that your child will personally experience any of the previously mentioned benefits.

What is the Cost of this Program?

There will be no cost for your child to participate in this program. It is free to all participants!

Participant Rights

Your child's participation in this program is voluntary. You have the right to decline your child's participation or withdraw your child from the program at any time. Denial for participation or withdrawal from the program will not result in any penalty.

Confidentiality

The records of this program will be kept private to the extent permitted by law. Your child's name will not be used if data from this program is published. The following steps will be taken in order to keep notes, records, and other personal information confidential: All data containing your child's name will kept on a password protected computer and/or a locked file cabinet that only the program facilitators will have access to.

Contacts & Questions?

If you have any questions, comments, or concerns regarding this program or your child's participation in this program please contact either Jerrica Thiel at jerrica.b.thiel@und.eduor Mallory Manecke at mallory.manecke@und.edu.			
•	(print name), so ild to participate in the Generation ing healthier communities by stre	1 0	
Parent/C	Guardian Signature	Date	

Consent Form for Older Adults

Title: GenerationACTIVE: Creating Healthy Communities Two Generations at a Time

Department: Occupational Therapy

Introduction:

You have been invited to participate in the GenerationACTIVE program that is working towards creating healthier communities. This program will allow you to build and establish a healthy relationship with a 6th grade student, educate you about nutrition and healthy habits, encourage you to create and consume healthy snacks, and will provide an opportunity for you to participate in 30 minutes of intergenerational physical activity.

How Many People will Participate?

The targeted group size for this program consists of 10 school students and 10 older adults that reside independently within a retirement community, equaling a total of 20 participants.

How Long will the Program Last?

This is a seven-week program that will meet one time per week for 90 minutes each time.

What are the Risks of this Program?

There may be some risks associated with participating in this program, however, they are minimal. Due to the nature of the program topics and discussion questions being related to your health, experiences, and feelings, you may encounter aversive emotions or emotional distress. In addition to psychological risk, there is risk for physical harm. All measures will be implemented to avoid physical harm, however there is a minimal chance you may experience physical discomfort or injury during the 30 minute physical activity sessions.

What are the Benefits of this Program?

One can expect the following possible benefits from participating in this program: increased sense of purpose, increase in subjective health, increase in cognitive stimulation, increase in functional capacity, increase in meaning of life, increase in health awareness, and self-awareness of daily healthy habits. Each of these benefits will contribute to the prevention of obesity and the management of diabetes, however, there is no guarantee that you will personally experience any of the previously mentioned benefits.

What is the Cost of this Program?

There will be no cost for you to participate in this program. It is free to all participants!

Participant Rights

Your participation in this program is voluntary. You have the right to decline your participation or withdraw from the program at any time. Denial for participation or withdrawal from the program will not result in any penalty.

Confidentiality

The records of this program will be kept private to the extent permitted by law. Your name will not be used when data from this program is published. The following steps will be taken in order to keep notes, records, and other personal information confidential: All data containing your name will kept on a password protected computer and/or a locked file cabinet that only the program facilitators will have access to.

Contacts & Questions? If you have any questions, comments, or concerns regarding this program or your participation in this program please contact either Jerrica Thiel at jerrica.b.thiel@und.ecor Mallory Manecke at mallory.manecke@und.edu.			
	rticipate in the GenerationAC	signify that I have read the above CTIVE program that is working ng intergenerational partnerships.	
Participa	ant Signature	Date	

Student Satisfaction Survey

Please circle one or more responses:

Did you enjoy the activities that were offered during this program?					
Yes	No	Some of the	he activities		
Did you enjo	y being a	round the ol	der adults?		
Yes	No	Some of the	he activities		
•	Do you think you will make better choices regarding your health after completing this program?				th after completing
Yes	No				
How did this	s program	make you f	eel?		
Нарру	Sad	Mad	Bored	Excited	Engaged
Did you feel	like the p	rogram enco	ouraged you	to move your boo	dy?
Yes	No				
Did this program teach you something that you did not know before?					
Yes	No				
Were there any sessions that included activities that you enjoy?					
Yes	No				
Would you take part in another program like this in the future?					
Yes	No				

Additional Comments:

(Optional)

Older Adult Satisfaction Survey

Please circle one or more responses:

Did you enjoy the activities that were offered during this program?					
Yes	No	Some of the	e activities		
Did you enjo	oy being a	round the you	ınger genera	ation?	
Yes	No	Sometimes			
Do you think program?	k you will	make any life	estyle chang	es in the future, f	following this
Yes	No				
How did this	s progran	n make you fee	el?		
Нарру	Sad	Upset	Bored	Excited	Engaged
Do you belie active?	eve this pr	ogram offered	d a variety o	of opportunities t	o be physically
Yes	No				
Did you feel	like the p	orogram encou	ıraged you t	to be physically a	ective?
Yes	No				
Did this probefore?	gram teac	ch you facts al	oout health :	and wellness you	did not know
Yes	No				
Would you take part in another program like this in the future?					
Would you t	take part	in another pro	ogram like t	his in the future?	?

Additional Comments:

Session 1

Getting to Know GenerationACTIVE

Objectives:

- 1. Older adults will complete the Health Enhancement Lifestyle Profile (HELP) in order to determine their current habits and routines in multiple health-promoting behaviors.
- 2. Children will complete the Pizzi Healthy Weight Management Assessment in order to determine their current level of ability to change and stress levels in health factors related to weight management.
- 3. Participants will demonstrate active engagement in the session's physical activity for the day, as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Explain the purpose of this program
- Explain how each session will go
 - o Creating a healthy snack during each session
 - o Participating in a physical activity to work towards meeting the daily recommended goal
 - o Creation and discussion of goals
- Discuss what activities will completed this day
- Discuss the timeframe

Initial Assessment (25 minutes):

- Discuss the assessments that will be completed
 - Remind the participants that their completion of the assessments are voluntary and will not affect them in any way based on their response or completion
- Administer assessments and pencils and ask one of the younger participants to gather assessments once completed and place them in an envelope

Snack Preparation & Snack Consumption (20 minutes): Healthy Ocean Snack

Physical Activity (30 minutes): Get to Know You Ball Toss

Conclusion (5 minutes):

- Discuss main points/wrap up
- Discussion questions
 - What will you do in order to get the most out of this intergenerational experience?
 - What will you do to help build relationships with the other group participants?
 - How will you establish trust between you and the other group participants?

Weekly Goal: Engage in 2 or more types of physical activity this week in order to increase the amount of time you are active.

Healthy Ocean Snack



Ingredients: Large rice cakes, blueberry yogurt, goldfish crackers, white nonpareils, blue rock candy crystals, blue food gel

Directions:

- 1. Pour blueberry yogurt into a bowl.
- 2. Add a VERY small dab of blue food gel. Mix until well incorporated and the desired color is achieved.
- 3. Spoon yogurt onto the top of a rice cake and spread evenly to resemble a pond.
- 4. Lay goldfish crackers on top of the yogurt mixture.
- 5. Add blue rock candy at the bottom of the rice cake to resemble blue sand/rock.
- 6. Add a few white nonpareils above each fish to look like bubbles.

Get to Know You Ball Toss

Items Required: 2 inflated beach balls and 1 sharpie marker

Preparation: Leader of the group sessions will prepare 2 beach balls by scribing the following prompts in various locations on each beach ball:

- What is your favorite thing to do?
- What is your favorite snack?
- If you could be anywhere, where would you be right now?
- What is your favorite fruit?
- Are there any foods that you dislike?
- What is your favorite color?
- What is your favorite game to play?
- What do you like most about yourself?
- What is/was your favorite subject in school?
- What superpower would you like to have?
- What do you like to do when you get up in the morning?
- What time do you like to go to bed at night?
- What is one thing you are really good at?
- What would be the most amazing adventure to go on?
- What is the farthest you have been from home?
- What is your dream car?
- What is the luckiest thing that has ever happened to you?
- Who is your best friend? What do you like about him/her?
- What is something you would like to learn how to do?

Directions:

- 1. Facilitator will split the members into 2 groups and administer 1 completed beach ball to each group.
- 2. One volunteer will start with the beach ball, will state their name and read and answer the question their right thumb lands on or is nearest to.
- 3. The individual will then say the name of the person they are going to pass the ball to (or will ask their name if they do not remember).
- 4. The individual who catches the ball will state their name and read and answer the question.
- 5. Repeat steps 1-4.

This activity will be continued for 3-6 rounds of each member receiving the ball. If a group member has already answered a question that their right thumb is near, they are encouraged to locate a prompt on the ball they have not yet answered, and elaborate on it.

Wrap-up: *Ask the following questions*

• What was your favorite part about this activity?

Possible Grading:

More Challenging: To make this activity more challenging, a weighted ball could be used instead of a beach ball. Another way to make this activity more challenging would be to encourage each individual to incorporate an exercise move with the ball once they catch it (ex: four truck twists).

Less Challenging: To make this activity less challenging, participants could roll the ball on the ground, rather than toss the ball. Participants could also just pass the ball to the person next to them, rather than tossing the ball in a random order.

References

Crystal. (2016). Healthy ocean snack for kids - Fishbowl beach fun. Retrieved from http://www.survivingateacherssalary.com/kids-fishbowl-ocean-beach-fun-healthy-snacks-recipe/

Session 2

ONE Occupationally Healthy Generation

Objectives:

- 1. Participants will identify one healthy occupation they can do more of during their day and one unhealthy occupation they can do less of during their day, by the end of the session.
- 2. Participants will demonstrate active engagement in the session's physical activity for the day, as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss time frame

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Strawberry Oatmeal Smoothie

- Review of goal in small group: *Ask the following questions*
 - o Reiterate Previous Goal Engage in 2 or more types of physical activity this week in order to increase the amount of time you are active.
 - o Did you meet your goal? If not, what barriers did you experience?
 - o How did your goal make you feel?
 - o Do you think this goal was beneficial for you? In what way?

Education (25 minutes): Healthy vs. Unhealthy Occupations

- PowerPoint (15 minutes)
- Interactive Activity (10 minutes): Daily Activity Clock

Physical Activity (30 minutes): Occupation Charades

Conclusion (10 minutes):

- Discuss main points/wrap up
- Discussion questions
 - After today, what is one thing you would like to do differently with your day?
 - o What is one thing you learned today that you found beneficial?

Weekly Goal: Participate in at least 2 new healthy activities this week in order to broaden your engagement in healthy occupational activities.

Strawberry Oatmeal Smoothie



Ingredients:

- 1 ½ cups of Ice cubes
- 1 medium banana
- 1 cup of frozen strawberries
- ½ rolled oats
- 1 cup almond milk
 - o Makes 2-12 oz. servings

Items Needed:

- Blender
- 20 cups

Directions:

• Combine all ingredients in a blender until the desired consistency is reached

Healthy vs. Unhealthy Occupations

Jerrica Thiel, MOTS & Mallory Manecke, MOTS University of North Dakota

Daily Objectives

- Each participant will identify 2 healthy occupations that they currently participate in daily, by the end of the session.
- Each participant will identify 2 unhealthy occupations they currently participate in every day, by the end of the session.
- Each participant will share one healthy and meaningful occupation that they currently participate
 in or previously participated in, by the end of the session.

What do you think an occupation is?

Occupation:

- Goal-directed activity
- Meaningful, purposeful activity
- Occupations provide personal satisfaction and fulfillment as a result of engaging in them
- Occupations refer to the everyday activities that people do as individuals, in families, and with communities to occupy time and bring meaning and purpose to life.
- Can you think of any occupations you engage in?

(American Occupational Therapy Association, 2014)

Healthy versus Unhealthy Occupations

Healthy

- Increase your happiness
- Decrease your stress levels
- Help you stay healthy
- Benefit you in one way or another

Unhealthy

- Can cause an unhealthy increase in weight
- Can increase your chance to get sick
- Something to do to just pass the time

Increasing happiness can have multiple other health benefits.

Examples:

Healthy Occupations	Unhealthy Occupations
 Exercise Playing a card game Going for a walk outside Gardening Cooking Showering everyday 	 Watching TV Using tobacco Drinking alcohol Eating too much junk food Playing video games Sleeping too much or too little

Exercise examples: running, playing sports, lifting weights, swimming, riding bike, etc.

Discuss with your partners one occupation that is meaningful, brings you happiness, and that you enjoy doing

Possible discussion questions:

- What occupations are meaningful to you?
- Do any of you have a story to share about something you enjoy doing?
- Are there any other types of healthy occupations that you can think of?
- Are there any other types of unhealthy occupations that you can think of?

What do you think makes an occupation unhealthy?

An unhealthy occupation:

- Causes you harm, both mentally and physically (whether you realize it or not)
- Provides you no benefit

Factors to consider when engaging in an occupation:

- Type of activity
- Amount of time
- · Who is included
- Where it takes place
- Ask yourself: Is this a healthy occupational activity choice?

Type of activity: is it active, sedentary, or cognitively active?

Amount of time: does this occupation take up a majority of my time? Do I do this activity enough?

Who is included: does this occupation encourage me to be around positively influential people?

Where it takes place: does this occupation take place in a location where I feel safe?

Ask yourself: Will it benefit me in the future?

What type of occupations do you spend most of your day doing?

Daily Activity Clock

Provide the handout of the clock to each of the participants

- 1. Ask them to identify what they do during a typical day.
- 2. Have them write in what they do each hour of the day
- 3. Once every hour has something written in it, have them identify whether what they are doing is active, sedentary, or cognitively active

Active = Green Sedentary = Red Cognitively Active (thinking) = Yellow

References

 American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd edition). American Journal of Occupational Therapy, 68, S1-S48. doi 10.5014/ajot.2014.682006

Occupation Charades

Items Required: Pencils, paper, 1 bucket, & 1 stopwatch

Preparation: Create 40- 1 inch slips of paper & have ideas for healthy occupations in mind, if needed. Determine an appropriate time frame for acting sessions.

Directions:

- 1. Each participant will write down two healthy occupations on a slip of paper for somebody else to act out. These slips will be placed in a bucket when completed.
- 2. The participants will be split into 2 teams (each team will have half children and half older adults).
- 3. A volunteer from one team will be asked to go first, and each team will rotate after that. Both teams will be guessing what the individual is acting out. There is NO talking during while acting out the occupations.
- 4. The first team to get the answer right within the allocated time frame gets 1 point.
- 5. Whichever team has the most points after all slips of paper have been acted out, wins the game.

Note: If there are duplicate occupations, have the participant draw a new slip of paper.

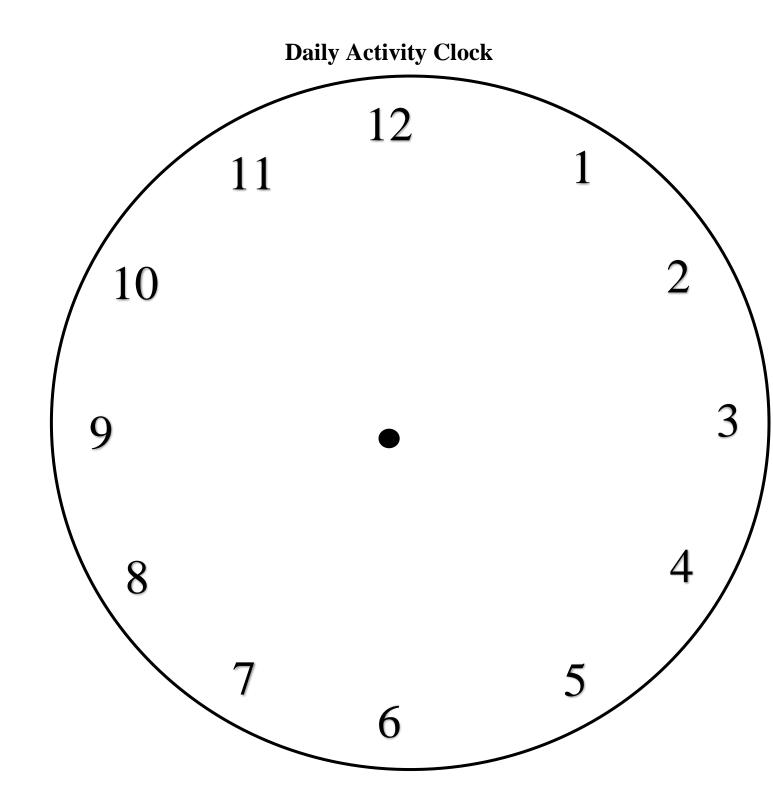
Wrap-up: *Ask the following questions*

- What did you think about this activity?
- How did it make you feel to act out some of these occupations?
- Were there any memories you thought of while acting out these occupations?

Possible Grading:

More challenging: To make this activity more challenging, the participants could be allotted less time, or the therapist could input more difficult occupations to act out.

Less challenging: This activity could be graded less challenging by allowing the individuals to use their voice while acting, by increasing the time frame, or ensuring that there is no competition between participants.



References

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd edition). *American Journal of Occupational Therapy*, 68, S1-S48. doi 10.5014/ajot.2014.682006

Kori at Home. (May 3). Delicious and healthy strawberry oatmeal smoothie recipe.

Retrieved from https://koriathome.com/delicious-and-healthy-strawberry-oatmeal-smoothie-recipe/

Session 3

Nutrition and YOU

Objectives:

- 1. Participants will demonstrate the ability to discuss the importance of nutrition, by the end of the session.
- 2. Each participant will demonstrate the ability to identify the 3 key areas on a nutrition label, by the end of the session.
- 3. Participants will demonstrate active engagement in the session's physical activity for the day as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss timeframe

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Healthy Apple Doughnuts

- Review of goal in small group: Ask the following questions
- Reiterate Previous Goal Participate in at least 2 new healthy activities this week in order to broaden your engagement in healthy occupational activities.
- Did you meet your goal? If not, what barriers did you experience?
- How did your goal make you feel?
- Do you think this goal was beneficial for you? In what way?

Education (25 minutes): Nutrition Labels

- PowerPoint (15 minutes)
- Interactive Activity (10 minutes): Nutrition Labels Worksheet
 - Materials needed: 10 food items with nutrition labels, pencils, and nutrition labels worksheet

Physical Activity (30 minutes): Dancing the Day Away

Conclusion (10 minutes):

- Discuss main points/wrap up
- Discussion questions
 - What is one thing you would like to do differently for your nutrition?
 - What is one thing you learned today that you found beneficial?

Weekly Goal: Compare 2 nutrition labels 2 different times throughout the week in order to practice reading nutrition labels and increase healthy dietary choices.

Healthy Apple Donuts



Ingredients:

- Wax or parchment paper, 6 washed apples, ½ cup melted white chocolate, ½ cup melted milk chocolate, ½ cup melted nut-free butter; Possible toppings: granola, cinnamon, unsweetened coconut, colored sprinkles, etc.
- Makes 12-18 servings

Directions:

- 1. Cut apple slices into ½ inch-thick slices. With a round small cookie cutter, apple corer, knife, or melon baller, remove the core.
- 2. Melt chocolate and nut-free butter in a microwave safe bowl for 30 seconds. Stir chocolate chips and transfer them into a zip or piping bag.
- 3. Place apple slices onto wax or parchment paper and let the participants drizzle chocolate or nut-free butter over the apple slices. Top with favorite toppings and enjoy!

(Fuentes, 2017)

Nutrition Labels and Nutritious Foods

Jerrica Thiel, MOTS & Mallory Manecke, MOTS University of North Dakota

Daily Objectives

- 1. Each participant will demonstrate the ability to identify the 3 key areas on a nutrition label, by the end of the session.
- 2. Each participant will be able to identify 2 nutrients to get more of in their diets, by the end of the session.
- 3. Each participant will identify 1 reason why good nutrition is important for participation in daily occupations, by the end of the session.

How well do you know your nutrition labels?

During this part of the slide show, play the following video: The food label and you: Game show review (Are you smarter than a food label?)

 $https://www.youtube.com/watch?v=DjFVOZ_ALuM\&list=PLBiQm1QZxN6jPz98HFwC76vZr2h27J94T\&index=2\\$

After each question on the video is asked, pause the video and have each intergenerational pair discuss and answer the question. Have them write their answer on a piece of paper and hold up in front of the group.

What is a "Nutrition Facts Label"?

- Created and required by the Food and Drugs Administration
- A label provided on food items in order to educate the consumer about what their food is made up
 of, as well as the food's nutritional value
- Have you ever seen a nutrition facts label?
- Have you ever read a nutrition facts label?

Additional discussion question:

- If you have read a nutrition label before, what kind of things were you looking at? Why?

3 Key Areas of Importance:

Serving size

o The recommended portion of a given food

• Percent Daily Value

- \circ 5% of the daily value or less = low in that nutrient
- o 20% of the daily value or more = high in that nutrient
- This can be good for nutrients like fiber that you want more of, but not so good for something like saturated fat, that you want less of.

Nutrients

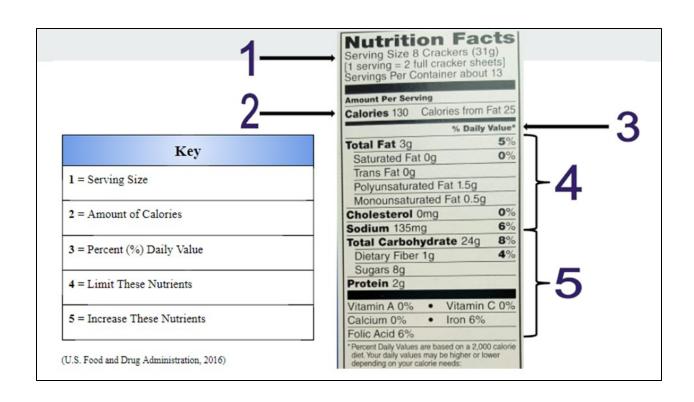
 An ingredient in food that provides nourishment. Nutrients are essential for life and keep your body functioning properly

(U.S. Food and Drug Administration, 2016)

Nutrients

Nutrients to get more of	Nutrients to get less of	
• Calcium	Total Fat (especially saturated fat)	
Dietary Fiber	Cholesterol	
Potassium	• Sodium	
Vitamin A		
Vitamin C		

(U.S. Food and Drug Administration, 2016)



What is considered good nutrition?

Having good nutrition means that your body is getting all the necessary nutrients, vitamins, and minerals that it needs to work at its best

(Tufts Associated Health Plans, Inc., 2017).

Importance of Good Nutrition

- Provides our bodies with energy
- Vital for good health and wellbeing
- · Decreases risk of diet-related diseases
- Increase your ability to fight off illness
- Increase your ability to recover after illness

(National Health and Medical Research Council, 2017 & Tufts Associated Health Plans, Inc, 2017)

Discussion Questions:

- What other reasons would we want to have good nutrition?
- If you don't have good nutrition, how could this impact your participation in your favorite occupations?

Diseases that good nutrition can prevent:

- Certain cancers
- High blood pressure
- Type 2 diabetes
- Obesity
- Coronary heart disease
- Osteoporosis

(U.S. Food and Drug Administration, 2016)

TIPS for Good Nutrition

- 1. Eat plenty of fruits
- 2. Eat plenty of vegetables
- 3. Eat whole-grains
- 4. Drink low-fat or fat-free milk
- 5. Choose lean meats

(Tufts Associated Health Plans, Inc., 2017)

Eat plenty of fruit - Fruits provide natural fibers that are beneficial to your health. In order to reap those benefits, you should try to eat as much whole fruit as possible.

Eat plenty of vegetables - The more colors you eat in a day, the better!

Eat plenty of whole grains - It is recommended that at least half of the carbohydrates you eat in a day should be made from whole grains. This includes cereals, breads, crackers, and pastas

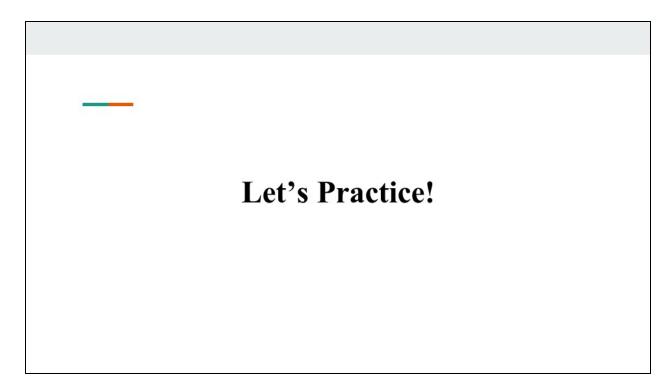
Choose low fat or fat free milk - These provide the recommended amount of vitamin, to help build and maintain strong bones

Choose lean meats - Lean meats and chicken have less fats and calories than other meats, but are still able to provide you with the recommended amount of protein.

(Tufts Associated Health Plans, Inc., 2017)

Discussion Questions

- How do you incorporate fruits and vegetables into your day?
- Think about your favorite meal that you consider to be healthy, what does it entail? Is there a way you could make it healthier?



At this time, present the Nutrition Labels worksheet.

- Have each intergenerational pair work together to identify the 3 key important areas on the 5 different nutrition labels provided

References

- National Health and Medical Research Council. (2017). Nutrition. Retrieved from https://www.nhmrc.gov.au/health-topics/nutrition
- Tufts Associated Health Plans. (2017). The importance of good nutrition. Retrieved from https://www.tuftsmedicarepreferred.org/healthy-living/expert-knowledge/importance-good-nutrition
- U.S. Food and Drug Administration. (2016). Using the nutrition facts label: A how-to guide for older adults.
 Retrieved from https://www.fda.gov/food/resourcesforyou/consumers/ucm267499.htm

Nutrition Labels Worksheet

Grocery Item	Serving Size	% Daily Value of Vitamin A	% Daily Value of Total Fat	List Nutrients in Item

Dancing the Day Away

Items Required: One large open space, music of the group's choosing, and chairs for seated breaks

Preparation: Prior to this session, gather input from the group on the type of dance they would be interested in learning and the type of music they would like to dance to. If any of the older adults know a dance and are willing to teach the rest of the group the dance, encourage that. If there is limited input, suggest an easier dance to learn, such as line dancing, or the "Cha Cha Slide" that can be learned in a short period of time. If necessary, locate an instructional YouTube video.

Directions: Encourage the participants to be active while listening to music, through dance, for as long as they can. Encourage the participants to teach each other dance moves, as well as make up their own. Remind participants to take seated breaks and drink water, when or if they are beginning to feel fatigued. Also remind participants to keep both feet on the ground at all times (to prevent jumping off chairs or attempting flips/risky moves), in order to ensure safety of everyone.

Wrap-up: *Ask the following questions*

- What did you think about this activity?
- How did it make you feel to dance to music?
- Do you think dancing is an occupation you would be interested in engaging in more frequently?

Possible Grading:

More challenging: To make this activity more challenging, the participants could be asked to dance to faster paced music, stand while dancing, dance for a longer period of time, and/or dance in a dimly lit environment to increase the ambiance.

Less challenging: To make this activity less challenging, the participants could be asked to dance to slower paced music, remain seated while dancing, and/or dance with exclusively upper body movements only, while seated in a chair, in order to decrease the amount of energy and exertion it would take to dance.

References

- Fuentes, L. (2017, Feb. 27). Healthy apple donuts. Retrieved from http://www.laurafuentes.com/healthy-apple-donuts/
- National Health and Medical Research Council. (2017). *Nutrition*. Retrieved from https://www.nhmrc.gov.au/health-topics/nutrition
- Paul, J. [DrSmarty]. (2016). Nutrition facts labels How to read For kids Dr. smarty. [Video file]. Retrieved from https://www.youtube.com/watch?v=ylY0w04AAVk
- Tufts Associated Health Plans. (2017). *The importance of good nutrition*. Retrieved from https://www.tuftsmedicarepreferred.org/healthy-living/expert-knowledge/importance-good-nutrition
- USFoodandDrugAdmin. (2011, Feb. 24). The food label and you: Game show review

 (Are you smarter than a food label?) [Video file]. Retrieved from

 https://www.youtube.com/watch?v=DjFVOZ_ALuM&list=PLBiQm1QZxN6jPz9

 8HFwC76vZr2h27J94T&index=2
- U.S. Food and Drug Administration. (2016). *Using the nutrition facts label: A how-to guide for older adults*. Retrieved from https://www.fda.gov/food/resourcesforyou/consumers/ucm267499.htm

Session 4

Stay HAPPY

Objectives:

- 1. Participants will demonstrate knowledge of common stressors in their life, as demonstrated by their participation in the group discussion, by the end of the session.
- 2. Participants will come up with at least one activity they can engage in to reduce stress in their lives, by the end of the session.
- 3. Participants will demonstrate active engagement in the session's physical activity for the day as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss timeframe

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Banana Split Bites

- Review of goal in small group: Ask the following questions
 - Reiterate Previous Goal Compare 2 nutrition labels 2 different times throughout the week in order to practice reading nutrition labels and increase healthy dietary choices.
 - o Did you meet your goal? If not, what barriers did you experience?
 - o How did your goal make you feel?
 - o Do you think this goal was beneficial for you? In what way?

Education (25 minutes): Maintaining Your Happiness

- *PowerPoint (15 minutes)*
- Interactive Activity (10 minutes): Seated Yoga Sequence

Physical Activity (30 minutes): Stress Relief Physical Exercise

Conclusion (10 minutes):

- Discuss main points/wrap up
- Discussion questions
 - What is one thing you would like to do differently for stress relief?
 - o What is one thing you learned today that you found beneficial?

Weekly Goal: Practice your yoga hand out at least 3 times this week in order to increase your active engagement in physical stress reduction.

Banana Split Bites



Ingredients: Bananas, pineapple, strawberries, dipping chocolate, chopped peanuts (optional), & Popsicle sticks or skewers

Directions:

- 1. Cut strawberries in half.
- 2. For each strawberry half, cut an equal size piece of banana and pineapple.
- 3. Place pineapple on first, then banana and lastly strawberry.
- 4. Place in freezer for 10 minutes.
- 5. Line a tray with wax paper or parchment paper.
- 6. Put chopped nuts in small plate to use for dipping.
- 7. Melt chocolate by heating in microwave for 30 seconds, stirring and repeating until melted and smooth.
- 8. Dip cold fruit in chocolate, then into nuts, then place on prepared tray.

Maintaining Your Happiness

Jerrica Thiel, MOTS & Mallory Manecke, MOTS University of North Dakota

Daily Objectives

- Participants will demonstrate knowledge of common stressors in their life, as demonstrated by their participation in the group discussion, by the end of the session.
- 2. Participants will come up with at least one activity they can engage in to reduce stress in their lives, by the end of the session.

What is stress?

• Would someone like to provide a definition of stress in your their terms?

What is stress?

- A response of the body to change
- Physical, mental, or emotional strain or tension
- The rate of wear and tear on the body
- A desirable or undesirable state of mind that causes physiological arousal
- What is an example of something that causes you stress?
- How do you cope with situations that cause you stress?

(The American Institute of Stress [AIS], 2017)

Types of Stress

Acute Stress

- Short-term, most common; Highly treatable and manageable
- Ex: Upcoming test, job interview

Episodic Acute Stress

- Individuals who experience acute stress frequently; Continual worry
- Ex: Continually rushed, taking on too demanding of roles

Chronic Stress

- · Stress that is continuous or long-term; inability to see a way out of a miserable situation
- · Ex: Serious life events, loneliness, feelings like you can't fit in

(Miller & Smith, n.d.)

Stress

• What additional life events or situations do you think can cause stress?

Effects of stress on the human body • Muscle tension

- Difficulty breathing
- Increased heart rate
- Increased blood sugar levels
- Heartburn
- Nausea or stomach pain
- Diarrhea or constipation

(Tovian et. al, n.d.)

Importance of stress relief

- · To prevent disease and illness
- To keep your body and mind healthy
- Increase your lifespan
- Live a happier life
- Decrease negative side effects on the body

(MFMER, 2015)

Exercise as a stress reliever

- · Exercise increases your health and overall wellbeing
 - o Increases endorphins "the happy feeling"
 - Moving your body requires you to focus on your body movements, versus focusing on potential stressors
 - o Improves your mood
 - Exercise can increase self-confidence, it can relax you, it can lower the symptoms
 associated with mild depression and anxiety, and it can improve your sleep, which is
 often disrupted by stress.

(MFMER, 2015)

Ways to assist with stress relief plans

- Start small
- Engage in an activity you enjoy
- Pencil it in
- Set goals
- Find a friend
- · Exercise in increments

(MFMER, 2015)

Stress

- What additional ways can you relieve your stress?
- How important is it to you to relieve stress?

References

- Mayo Foundation for Medical Education and Research (MFMER). (2015). Exercise and stress: Get moving to manage stress. Retrieved from http://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/exercise-and-stress/art-20044469?pg=1
- Miller, L. & Smith, A. (n.d.) American Psychological Association (APA). Stress: The different kinds of stress.
 Retrieved from http://www.apa.org/helpcenter/stress-kinds.aspx
- The American Institute of Stress (AIS). (2017). What is stress? Retrieved from https://www.stress.org/what-is-stress/
- Tovian, S., Thorn, B., Coons, H., Labott, S., Burg, M., Surwit, R., & Bruns, D. (n.d.). American Psychological Association (APA). Stress effects on the body. Retrieved from http://www.apa.org/helpcenter/stress-body.aspx

Seated Yoga Sequence

Directions: This seated yoga sequence can be done in the comfort of your own home, and at your own pace. This seated yoga sequence will assist you with engaging in exercising, decreasing stress levels, and increasing your overall health and wellness. It is recommended that this seated yoga sequence be completed 5-6 times per week.



(DAREBEE, 2017)

Seated Stress Relief Physical Exercise

Items Required: Chairs for sitting in & water for rest breaks

Preparation: Ensure that each participant has a seat available, as well as a bottle of water, for periods of needed rest during exercise. Briefly discuss the process of completing the physical activity with group.

Directions: Discuss with participants that they will be following the individuals on the screen, in the video. Encourage individuals to participate in the physical activity as instructed either in a standing, or a seated position. Remind the participants the importance of taking breaks and drinking water for their safety.

Wrap-up: *Ask the following questions*

- What did you think about this activity?
- How did it make you feel to participate in this type of physical exercise?
- Do you think you would be interested in completing additional work out videos in the future?

Possible Grading:

More challenging: This exercise activity could be made more challenging if the participants were asked to complete the exercise while standing, with fewer seated breaks, incorporating weights, or completing the movements at a faster pace.

Less challenging: This exercise activity could be made less challenging if the participants were asked to remain seated while completing the exercise, take additional paused breaks, completing the movements at a slower pace, or decreasing the amount of movements required to complete the activity.

References

- DAREBEE. (2017). Three minute seated yoga. Retrieved from https://darebee.com/

E. (2016). Banana split bites. Retrieved from

- http://www.lifeloveliz.com/2015/05/04/banana-split-bites/#_a5y_p=3734394
- Kozak, J. [HASfit]. (2016). 20 min exercise for seniors, elderly, & older people Seated chair exercise senior workout routines. [Video File]. Retrieved from https://www.youtube.com/watch?v=8CE4ijWlQ18&utm_content=buffer284e2&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer
- Mayo Foundation for Medical Education and Research (MFMER). (2015). *Exercise and stress: Get moving to manage stress*. Retrieved from http://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/exercise-and-stress/art-20044469?pg=1
- Miller, L. & Smith, A. (n.d.) American Psychological Association (APA). *Stress: The different kinds of stress*. Retrieved from http://www.apa.org/helpcenter/stress-kinds.aspx
- Ted Ed. (2015, Oct. 22). How stress affects your body- Sharon horesh bergquist [Video file]. Retrieved from https://www.youtube.com/watch?v=v-t1Z5-oPtU
- The American Institute of Stress (AIS). (2017). What is stress? Retrieved from https://www.stress.org/what-is-stress/
- Tovian, S., Thorn, B., Coons, H., Labott, S., Burg, M., Surwit, R., & Bruns, D. (n.d.).

 American Psychological Association (APA). *Stress effects on the body*. Retrieved from http://www.apa.org/helpcenter/stress-body.asp

Session 5

Healthy & Sustainable FOOD for You

Objectives:

- 1. By the end of this session, each participant will understand the process of planting and growing at least one garden food in order to further develop their ability to incorporate healthy foods into their diet.
- 2. Participants will demonstrate active engagement in the session's physical activity for the day, as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss timeframe

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Healthy Flowers

- Review of goal in small group: *Ask the following questions*
 - Reiterate Previous Goal Practice your yoga hand out at least 3 times this
 week in order to increase your active engagement in physical stress
 reduction.
 - o Did you meet your goal? If not, what barriers did you experience?
 - o How did your goal make you feel?
 - o Do you think this goal was beneficial for you? In what way?

Education (25 minutes): Knowing where your food comes from/taking an active role in providing for self

- *PowerPoint (15 minutes)*
- Interactive Activity (10 minutes): Seed Chart Worksheet
 - O Materials needed: 2 seed packets of the following garden foods: cantaloupe, carrots, lettuce, potato, watermelon; pencils; and copies of the Seed Chart Worksheet

Physical Activity (30 minutes): Gardening - Green Beans

Conclusion:

- Discuss main points/wrap up
- Discussion questions
 - Would you be interested in growing your own food in the future?
 - o What is one thing you learned today that you found beneficial?

Weekly Goal: Choose 3 foods you eat during the week and try to determine where they come from, and if they are healthy choices.

Healthy Flowers



Ingredients: Carrots, Cucumbers, Cheese, & Toothpicks

Directions:

- 1. Cut cucumber into wheels and then in a half.
- 2. Cut carrot into wheels too, and make 3 petals on top of each with small knife.
- 3. Cut cheese into cubes. Take one by one toothpick and stick them in a cheese first, then stick cucumber above cheese and carrot on top.

Importance of Food Origin

Jerrica Thiel, MOTS & Mallory Manecke, MOTS University of North Dakota

Daily Objectives

- 1. Each participant will be able to identify one benefit of growing your own food, by the end of the session.
- 2. Each participant will understand the process of planting and growing at least one garden food, by the end of the session.

What does the term "origin of food" mean?

• The "origin of food" is another term for knowing where your food comes from

Do you know where these foods come from?

- Oranges
- Mc. Donalds Chicken Nuggets
- Apples
- Burger King Cheeseburgers

So, what is in the food you eat every day?

At this point in the session, play the following video and follow up with discussion questions.

Video: All of the Ingredients in your processed foods https://www.youtube.com/watch?v=ZMNtYq3JIXI

Possible Discussion Questions:

- What about this video surprised you?
- Did you know there were that many ingredients in those foods?
- Were you surprised about any of the ingredients?
- Does watching this video make you rethink some of the foods you eat?

Did you know you can grow your own food?

- Have you ever grown your own food?
- Have you ever seen someone else grow their own food?
- Have you ever eaten food out of a garden?

Other discussion questions:

- What are some experiences you have had with growing your own food?
- What types of food would be in your garden if you could have as big of a garden as you'd like?

What are garden foods?

Fruits	Vegetables	Starches
 Strawberries Apples Raspberries Rhubarb Watermelon Tomatoes 	 Broccoli Peas Beans Peppers Lettuce Corn Carrots 	 Potatoes Yams Sweet potatoes Wheat Rice

• Can you think of any other types of food that can be grown in a garden?

The benefits of growing your own food

- It encourages you to eat more fruits and vegetables
- · You decide what types of pesticides and fertilizers come in contact with your food
- It allows you to be in control of when you harvest your food. Veggies that ripen in the garden have been found to have more nutrients than store-bought veggies that must be picked early.
- You know where your food came from
- Saves you money
- Growing your own food can very easily become an enjoyable hobby!

(Godman, 2012)

Facts

- Gardening can inspire you to take an interest in the origins of your food and make better choices about what you eat
- When you grow your own food, you savor it more because of the effort and time it took to get to your plate

(Godman, 2012)

Time for... Gardening 101!

At this point in the session, pass out the Seed Chart Worksheet to each participant.

Instruct each intergenerational pair to work together to determine where to plant (ex: direct sunlight vs. no sunlight), how deep to plant the seed, how many days until the plant can be harvested, and the best time of the year to plant for 5 different plants.

References

- Business Insider. (2015, Nov. 20). All of the ingredients in your processed foods. [Video file]. Retrieved from https://www.youtube.com/watch?v=ZMNtYq3JIXI
- Godman, H. (2012). Backyard gardening: Grow your own food, improve your health. Retrieved from https://www.health.harvard.edu/blog/backyard-gardening-grow-your-own-food-improve-your-health-201206294984

Seed Chart Worksheet

Type of Garden Food	What type of light does the seed need?	How deep should the seed be planted?	When is the best time to plant the seed?	How long until the plant crop can be harvested?
Watermelon				
Cantaloupe				
Iceberg Lettuce				
Carrots				
Potatoes				

Gardening - Garden Beans

Items Required: Small flower pots, 3 packs of green bean seeds (pole or bush beans), 3 bags of potting soil, water, plastic stakes or thin Popsicle sticks, and 2 measuring cups

Preparation: Ensure all items required to complete task are accessible for all participants. Provide measuring cups near bags of soil that allow individuals to measure out enough soil to fill their pots with approximately 5-6 inches of soil. Briefly discuss the process of planting garden beans with group. Remind the participants to take their time in order to avoid messy work stations and to decrease the time needed to clean up.

Directions:

- 1. Fill your pot with soil approximately 3 to 4 inches from the top; water the soil until it is moist.
- 2. Place individual bean seeds onto the soil, and cover seeds with approximately 2 inches of additional soil.
- 3. Place the plant stakes in the dirt, forming a teepee-like structure that comes together in a point centered over the top of the growing area this will provide support for the plants once they begin to grow, as the plant will climb up the plant stakes.
- 4. Water the plant seeds regularly, ensuring the soil is uniformly moist for the first 2 to 3 weeks after planting while the seeds germinate. After the first few weeks, moisten the plant by sprinkling it with water whenever the top of the soil feels dry. Increase the watering once the seeds begin to sprout.
- 5. Place the containers in full sunlight for six to eight hours each day, and keep them indoors in order to shelter them from wind as much as possible.
- 6. Pick your first crop of beans when the pods are about 2 inches long and not yet bulging. Depending on the variety elected, most green beans will reach this stage in 45 to 75 days.

Wrap-up: *Ask the following questions*

- 1. What did you enjoy about the gardening experience?
- 2. Would you be interested in planting in small pots in the future?
- 3. Would you be interested in trying your garden beans once they are ready to be harvested?

Possible Grading:

More challenging: This gardening activity could be graded to be more challenging for the participants if they were asked to plant more foods, follow verbal instructions (versus written), required to complete the task in standing, or were required to look up the gardening instructions on their own.

Less challenging: This gardening activity could be graded to be less challenging for the participants if they were asked to only plant one pot per group of individuals (versus everyone making their own pot), if they were provided with written and visual picture instructions, or were required to complete the task while seated.

Adapted from: http://homeguides.sfgate.com/growing-green-beans-container-42230.html

Gardening - Garden Beans Instructions

Items Required: 1 small flower pot, green bean seeds, potting soil, water, plastic stakes or thin Popsicle sticks

Directions:

- 1. Gather the "items required" mentioned on this list.
- 2. Fill your pot with soil approximately 3 to 4 inches from the top; water the soil until it is moist.
- 3. Place individual bean seeds onto the soil, and cover seeds with approximately 2 inches of additional soil.
- 4. Place the plant stakes in the dirt, forming a teepee-like structure that comes together in a point centered over the top of the growing areathis will provide support for the plants once they begin to grow, as the plant will climb up the plant stakes.
- 5. Water the plant seeds regularly, ensuring the soil is uniformly moist for the first 2 to 3 weeks after planting while the seeds germinate. After the first few weeks, moisten the plant by sprinkling it with water whenever the top of the soil feels dry. Increase the watering once the seeds begin to sprout.
- 6. Place the containers in full sunlight for six to eight hours each day, and keep them indoors in order to shelter them from wind as much as possible.
- 7. Pick your first crop of beans when the pods are about 2 inches long and not yet bulging. Depending on the variety elected, most green beans will reach this stage in 45 to 75 days.

Congratulations, you have officially completed planting your own garden beans!

References

- Business Insider. (2015, Nov. 20). All of the ingredients in your processed foods. [Video file]. Retrieved from https://www.youtube.com/watch?v=ZMNtYq3JIXI
- Godman, H. (2012). *Backyard gardening: Grow your own food, improve your health*.

 Retrieved from https://www.health.harvard.edu/blog/backyard-gardening-grow-your-own-food-improve-your-health-201206294984
- L, S. (2015). 13 healthy snacks for kids that are easy to make. Retrieved from http://incredibleplayhouse.com/13-healthy-snacks-for-kids-that-are-easy-to-make/
- Thompson, M. (n.d.). Growing green beans in a container. Retrieved from http://homeguides.sfgate.com/growing-green-beans-container-42230.html

Session 6

Time to MOVE

Objectives:

- 1. Participants will recognize how often they participate in screen time in order to raise awareness for their physical health, by the end of the session.
- 2. Participants will identify two or more alternative activities to replace their screen time, by the end of the session.
- 3. Participants will demonstrate active engagement in the session's physical activity for the day as demonstrated by appropriate behaviors, respect for others, and their participation in the activity.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss timeframe

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Backyard Bugs

- Review of goal in small group: Ask the following questions
 - o Reiterate Previous Goal Choose 3 foods you eat during the week and try to determine where they come from, and if they are healthy choices.
 - o Did you meet your goal? If not, what barriers did you experience?
 - o How did your goal make you feel?
 - o Do you think this goal was beneficial for you? In what way?

Education (25 minutes): Screen Time

- PowerPoint (15 minutes)
- Interactive Activity (10 minutes): Healthy Activity Tracker
 - o Materials needed: 1 plastic cup and 40 colored popsicle sticks (green and red) for each individual; colorful Sharpie markers, and stickers (optional)

Physical Activity (30 minutes): Outdoor Scavenger Hunt/Nature Walk

Conclusion (10 minutes):

- Discuss main points/wrap up
- Discussion questions
 - What will you do in the future to limit your screen time?
 - o What is one thing you learned today that you found beneficial?

Weekly Goal: Limit your screen time to 2 hours or less per day in order to increase your physical activity level for promoting better health.

Backyard Bugs





Ladybug Ingredients: crackers, cheese, grape tomatoes, black olives, candy eyes, icing gel

Directions: Use your cracker as a guide to size your cheese. Place the cheese on top of the cracker. Cut grape tomato almost in half, leaving a tiny connection at one end. Open and lay flat on the cheese. Cut a black olive in half and place upside down at top of the tomato. Place the eyes inside the black olive and add the spots with icing gel.

Caterpillar Ingredients: grapes, wooden skewer, candy eyes, icing gel

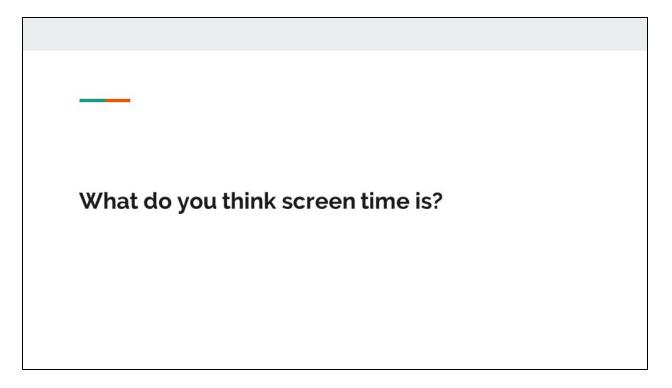
Directions: Rinse and dry about 20 grapes. Carefully skew the grapes. Using the icing gel, draw a smile. Then add two candy eyes.

Too Much Screen Time?

Jerrica Thiel, MOTS & Mallory Manecke, MOTS University of North Dakota

Daily Objectives

- Participants will recognize how often they participate in screen time in order to raise awareness for their physical health, by the end of the session.
- 2. Participants will identify two or more alternative activities to replace their screen time, by the end of the session.



Ask participants to discuss in small groups what they think screen time is, as well as examples of screen time.

What is screen time?

- "Screen time" = activities done in front of a screen
 - Watching TV
 - o Working on a computer
 - o Playing video games
 - Screen time is sedentary activity, meaning you are being physically inactive while sitting down.

(U.S. National Library of Medicine, 2017)

"Television has been a fixture in American homes for more than 60 years. The average American household has more televisions than people and has it on over 8 hours a day. More than 60 percent of children under two use screen media and 43 percent watch television every day. Nearly a third of American children live in a household where the television is on all or most of the time" (Minnesota Department of Health, 2017, para 1-b).

Different types of screen time

- Television
- Cell phone
- Ipad/Tablet
- Computer
- Gaming devices Wii, GameBoy, Playstation, XBox
- What types of screen time do you engage in?

The impacts of screen time

- Multiple studies have found a positive relationship between the amount of television viewed and obesity in children and adults
 - Decreased physical activity due to time taken doing sedentary activities
 - Food advertising encouraging consuming less healthy foods
 - o Snacking behavior while watching television
 - Decreased metabolism
- How often do you engage in screen time?

(Minnesota Department of Health, 2017)

The impacts of screen time

- Decreased amounts of sleep or quality of sleep
- Eye problems
 - o Eye strain, dry eye, blurred vision, headaches
- Neck & shoulder pain
- · Increased risk for attention problems, anxiety, and depression

(U.S. National Library of Medicine, 2017)

Neck and shoulder pain due to poor posture

At this time, show the education video: Negative Effects of Too Much Screen Time https://www.youtube.com/watch?v=3og0ETETqH4

Recommended daily amount of screen time

- Any child under the age of 2, should have 0 hours of screen time
- For anyone over the age of 2, screen time should be limited to 1-2 hours per day.
- How often do you engage in screen time?

(U.S. National Library of Medicine, 2017)

What activities can you do instead of sitting being in front of a screen?

Discussion pieces:

- Have the older adults share stories about activities they did when they were younger

Let's track the amount of time you spend in front of a screen!

At this time, administer the "Healthy Activity Tracker" instructions and materials.

References

- Minnesota Department of Health. (2017). Television/screen time, and health. Retrieved from http://www.health.state.mn.us/divs/hpcd/chp/cdrr/obesity/tvviewing/tvscreeninfo.html
- U.S. National Library of Medicine. (2017) Screen time and children. Retreived from https://medlineplus.gov/ency/patientinstructions/000355.htm

Healthy Activity Tracker Instructions

Purpose: The purpose of this activity is for you to track and reflect on the amount of time you spend in front of a screen, versus healthy activity time where you are engaged in physical activity. The goal is for you to be as accurate as you can when recording how you spend your time, so that you can be aware of how you spend your time.

Directions:

- 1. Decorate your cup in whatever way you please
- 2. Bring this cup home with you and plan to use it on Saturday
- 3. On Saturday, track your activities from the time you get up in the morning from the time you go to bed at night.
- 4. You will be tracking your activities in half hour time frames
- 5. For every half hour of healthy activity you do, place a green Popsicle stick in your cup.
- 6. For every half hour you spend in front of a screen, place a red Popsicle stick in your cup.
- 7. In the next session, plan to share with the group the amount of green popsicle sticks and red popsicle sticks you had in your cup at the end of the day on Saturday.

Note: If you run out of a certain color of Popsicle sticks, keep track with a pen and paper.

Outdoor Scavenger Hunt

Items Required: Pencils and worksheets

Preparation: Ensure all items required to complete task are accessible for all participants. Briefly discuss the process of the outdoor scavenger hunt with group.

Directions: Group participants will take a walk through an accessible, local park, or a convenient area outside of the facility. Each pair will be provided a list of items to locate while on their walk. Each group will have approximately 20 minutes to locate all of the items on their list and will be asked to share with the group the items they found upon return. It is not required for pairs to find every item on the list.

Wrap-up: *Ask the following questions*

- 1. What items did your team find?
- 2. Where did your team find these items?
- 3. Did you enjoy this type of physical activity?
- 4. Would you be interested in doing an activity like this again?

Possible Grading:

More challenging: This activity could be graded to be more challenging if the participants were asked to find the items individually (versus in pairs), to find more items in a lesser amount of time, asked to jog or speed walk while looking for items, were provided with hand or ankle weights while finding items, or were provided less breaks during the scavenger hunt activity.

Less challenging: This activity could be graded to be less challenging if the participants were asked to complete the task in larger groups, if all items were assured to be found within the premises in the designated time, or if the individuals were provided more time for seated breaks.

Outdoor Scavenger Hunt Items

Directions: Please find as many items with your partner as you can while on your scavenger hunt. When you find an item, you can check it off of your list, and recall where you found it for discussion purposes following the hunt.

X	Items to Find on Scavenger Hunt
	A pinecone
	An acorn
	Something colorful
	A flat rock
	Two different looking leaves
	Something soft
	Something warm
	Something with a good smell
	Something shiny
	A round rock
	A piece of litter
	Something fuzzy
	Something cold
	Something you consider to be a treasure

There were 15 items on the list, how many items did your team find?

References

- B. (2017). *Kid approved healthy snacks!* Retrieved from http://thecraftingchicks.com/back-yard-bug-snacks/
- Minnesota Department of Health. (2017). *Television/screen time, and health*. Retrieved from http://www.health.state.mn.us/divs/hpcd/chp/cdrr/obesity/tvviewing/tvscreeninfo.html
- Raghavan, V. (2016, Sept. 24). Negative effects of too much screen time. [Video file].

 Retrieved from https://www.youtube.com/watch?v=3og0ETETqH4
- U.S. National Library of Medicine. (2017) *Screen time and children*. Retrieved from https://medlineplus.gov/ency/patientinstructions/000355.htm

Session 7

GenerationACTIVE Established

Objectives:

- 1. Older adults will complete the Health Enhancement Lifestyle Profile (HELP) in order to determine their current habits and routines in multiple health-promoting behaviors following the completion of this program.
- 2. Children will complete the Pizzi Healthy Weight Management Assessment in order to measure any changes that were made related to health factors following their completion of this program.
- 3. Students and older adults will actively engage in the concluding discussion in order to provide adequate closure of the programs' end.

Introduction (5 minutes):

- Discuss the objectives
- Discuss what activities will be completed
- Discuss timeframe

Evaluation (25 minutes):

- Discuss the assessments that will be completed
 - Remind the participants that their completion of the assessments are voluntary and will not affect them in any way based on their response or completion
- Administer assessments and pencils and ask one of the younger participants to gather assessments once completed and place them in an envelope

Snack Preparation, Snack Consumption, & Goal Review (20 minutes): Watermelon Pizza

- Discuss Healthy Activity Tracker outcomes
- Review of goal in small group: Ask the following questions
 - Reiterate Previous Goal Limit your screen time to 2 hours or less per day in order to increase your physical activity level for promoting better health.
 - o Did you meet your goal? If not, what barriers did you experience?
 - o How did your goal make you feel?
 - o Do you think this goal was beneficial for you? In what way?
- Program Concluding Discussion
 - o How have the establishment of goals been or not been beneficial for you?
 - o How they can goal setting assist with your health promotion?
 - o Did you enjoy participating in this intergenerational program?

Final Activity (40 minutes): Poster Memoir & Future Plans

Conclusion (30 minutes):

- Have each intergenerational pair present their poster to the rest of the group.
- Upon completion of presenting the poster, present each person with an official "GenerationACTIVE Participation" certificate.

Watermelon Pizza



Ingredients: Large seedless watermelon, Greek yogurt (plain or vanilla), strawberries, blueberries, white chocolate chips

Directions:

- 1. Cut one end off of the watermelon and begin slicing 1 inch rounds
- 2. Spread a dollop of Greek yogurt in the middle of the watermelon round, leaving a little watermelon showing on the outer edge
- 3. thinly slice strawberries and place them on top of the Greek yogurt
- 4. sprinkle blueberries and white chocolate chips
- 5. Cut the watermelon into pizza slices

Poster Memoir & Future Plans

Items Required: 10 pieces of 24 x 36 inch colored tag board, 10 scissors, 10 glue sticks, a variety of magazines for each intergenerational pair, and markers, colored pencils, or crayons,

Preparation: In order to prepare for this activity, please gather all required materials and be prepared to hand them out to the groups at the time of the activity.

Directions:

- 1. Provide each intergenerational pair with all of the items required for this activity
- 2. Ask each intergenerational pair to incorporate at least three things on their poster, which may include the following items:
 - 1. What did you learn how to do?
 - 2. What are you going to commit to when you're done?
 - 3. Memories about the time they spent together while completing GenerationACTIVE
- 3. Encourage pairs to collaborate with each other and encourage both members of the pair to add information to their posters
- 4. You may play music quietly during this time, as long as it is appropriate to both generations
- 5. Give the pairs warnings of when they have 10 minutes and 5 minutes left, so that they are aware of needing to wrap up and conclude adding information to their posters
- 6. Request the groups to begin clean-up in the last 5 minutes

Possible Grading:

More Challenging: This activity could be graded to be more challenging by providing less time for the participants to create their posters, requesting each individual person to create their own poster, by providing more options for decorating their board, and/or requiring the posters to incorporate more information.

Less Challenging: This activity could be graded to be less challenging by providing additional time, not playing music, providing only markers to decorate posters, allowing larger groups per poster created, and/or not requiring each pair to share their poster in the front of the group.



References

Aly. (n.d.). *Patriotic watermelon pizza. A red white and blue crow-pleaser*. Retrieved from http://whatmomslove.com/food/patriotic-watermelon-pizza-4th-july-celebration/

CHAPTER V: SUMMARY

This product was developed in order to combat two identified problems in the United States. Firstly, the prevention of obesity, as obesity can begin at a young age and is known to have a detrimental impact on the health and future of Americans. Secondly, the prevention and management of diabetes, as this disease can also have many additional detrimental impacts on the health and future of individuals. Both of these diagnoses are considered to be epidemics in the United States today that are affecting a majority of the population, and, in addition, can be prevented through the implementation of health and wellness measures. Currently, there are no identified intergenerational programs that address health promotion and wellness, or obesity prevention and diabetes prevention and management. An extensive literature review was conducted in order to address these problems. From the results of the literature review, the student researchers were able to conclude that intergenerational programs are an appropriate method to use when educating and making positive changes in individual lives. Additionally, ways in which both the older adult population and the children can benefit from their engagement in IGPs include their increase in community and social engagement, the opportunity to be active, the chance to form new relationships, and the potential to reduce stigmas.

In order to create healthier communities, two generations at a time,

GenerationACTIVE was developed. GenerationACTIVE is an intergenerational program
that was created to specifically target the prevention and management of diabetes in older
adults and preventing obesity in younger children. GenerationACTIVE is a seven week

long, community-based program that generally focuses on health and wellness promotion strategies. Six of the seven sessions will last approximately 90 minutes, while the seventh session will last approximately 120 minutes. Sessions of this IGP will include creating a healthy snack, creating and discussing goals, engaging in intergenerational physical activity, and educational activities, which all revolve around the topics of health promotion and wellness.

Outcomes of the program will be addressed through the pre- and post-test which will be administered to both populations prior to the start of, and following the program. The pre- and post-tests address participant satisfaction with the implementation of the program, the encouragement of their involvement, and their overall feelings and change regarding their health and wellness routines and habits. The Health Enhancement Lifestyle Profile will be administered to the older adults to measure their habits and routines related to health promoting behaviors, and the Pizzi Healthy Weight Management Assessment will be administered to the children to measure health factors that relate to weight management and potential lifestyle changes that can be made.

Roadblocks to the implementation of GenerationACTIVE could include the lack of school funding, specific school curricula, lack of time, or the availability of older adult residents. Recommendations for the availability of older adult residents may include broadening the older adult participant population to any older adult individual who is 55 years of age and older that are physically and cognitively able. An additional recommendation may be requesting the occupational therapist to write a grant asking for additional funding if the program is unable to be implemented due to monetary means.

Clinical practice strengths of this program revolve around the topics of health promotion and wellness. Targeting health promotion and wellness will address the current changing trend in healthcare today from the curative to the preventative paradigm. Addressing preventative means through active engagement and educational strategies with the older adult and child populations will be an innovative way to prevent obesity and prevent and manage diabetes in our communities. An additional practice strength of this program is the purposeful and skilled implementation of healthy habit and routine formation that will be guided by an occupational therapist. Utilizing an occupational therapist in this program that specializes in healthy habits and routine formation, and activity analysis will allow the participants to be their own agents of change within their lives.

With completion of this project, limitations have been identified. The main limitation that has been identified is the lack of literature surrounding the Pizzi Health Weight Management Assessment as the outcome measure for program effectiveness in the students. This assessment is a newly developed assessment and has only been utilized in 2 published journal articles. There has been no research conducted on the reliability and validity of this assessment. Along with this assessment, a second limitation derives from the outcome measures for participant satisfaction. Both satisfaction surveys were created by the student researchers to include components of MOHO, and therefore, are not standardized. The third limitation derives within the specified populations. For the purposes of this product and ease of implementation, the inclusion criteria for the older adult population states that they must reside in a retirement community and therefore cannot include just any community dwelling older adult, even though they would likely

benefit from this program as well. In addition, the inclusion criteria for the students stated that they must be in the 6th grade, this also limits the amount of students who could potentially benefit from this program. Lastly, in order to create strong bonds, inclusiveness, and intimacy between the generational populations and the occupational therapists, this program is designed to have a maximum of 20 participants (10 older adults; 10 students). For potential future research, this is a limitation as the sample size will not be as significant if there were more participants.

Future research regarding this topic is needed to implement this program to determine its effectiveness in improving health and wellness related behaviors in students and older adults. Implementing this program will also be beneficial to determine areas of this program that need to be revised and what areas need to be removed or added to this program. In addition, research could help ascertain the long-term effects of this program. Future research could investigate the impact of this program on participants 1 year, 3 years, or 5 years after completion of the program. Future research is also needed in the field of occupational therapy to assess components of children's behaviors towards health and wellness. Future research could be conducted to determine the reliability and validity of the Pizzi Healthy Weight Management Assessment or a whole new assessment could be developed. This would provide occupational therapy practitioners a wider range of symmetrically sound assessments available to assess health and wellness in children.

In conclusion, the goal of this scholarly project was to develop an intergenerational program that educates and provides encouragement of active engagement and participation of students and older adults of health promotion and wellness strategies. Through GernerationACTIVE, the participants of this program will

work together to learn about prevalent diseases in our society, how these diseases can impact their lives, what they can do to prevent themselves from acquiring these diseases, and how to manage them if they have developed them over the course of their lives.

Addressing crucial and emerging topics like obesity and diabetes falls within the scope of occupational therapy practice. Therefore, GenerationACTIVE was developed as a health promotion and wellness intervention for occupational therapists to utilize to help fight the obesity and diabetes epidemics and to strive for a healthier America.

References

- Aly. (n.d.). *Patriotic watermelon pizza. A red white and blue crow-pleaser*. Retrieved from http://whatmomslove.com/food/patriotic-watermelon-pizza-4th-july-celebration/
- American Diabetes Association. (2017). *Statistics about diabetes*. Retrieved from http://www.diabetes.org/diabetes-basics/statistics/?referrer=https%3A%2F%2Fwww.google.com%2F
- American Occupational Therapy Association (AOTA). (2011). Emerging niche. *Chronic disease management*. Retrieved from https://www.aota.org/Practice/Health-Wellness/Emerging-Niche/Chronic-Disease-Management.aspx
- American Occupational Therapy Association. (2017). Health & wellness. *The role of occupational therapy with health promotion*. Retrieved from http://www.aota.org/~/media/Corporate/Files/AboutOT/Professionals/WhatIsOT HW/Facts/FactSheet_HealthPromotion.pdf
- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd edition). *American Journal of Occupational Therapy*, 68, S1-S48. doi 10.5014/ajot.2014.682006
- American Occupational Therapy Association. (2015). *The Role of Occupational Therapy*With Health Promotion. Retrieved from: https://www.aota.org/~/media/

 Corporate/Files/AboutOT/Professionals/WhatIsOT/ HW/Facts/FactSheet

 _HealthPromotion.pdf

- American Psychological Association (APA). (2017). *How social support can help you lose weight*. Retrieved from http://www.apa.org/topics/obesity/support.aspx
- B. (2017). *Kid approved healthy snacks!* Retrieved from http://thecraftingchicks.com/back-yard-bug-snacks/
- Baker, J. R., Webster, L., Lynn, N., Rogers, J., & Belcher, J. (2017). Intergenerational programs may be especially engaging for aged care residents with cognitive impairment: Findings from the avondale intergenerational design challenge.

 *American Journal Of Alzheimer's disease & Other Dementias, 32(4), 213-221. doi:10.1177/1533317517703477
- Business Insider. (2015, Nov. 20). All of the ingredients in your processed foods. [Video file]. Retrieved from https://www.youtube.com/watch?v=ZMNtYq3JIXI
- Centers for Disease Control and Prevention (CDC). (2016-a). *Defining adult overweight* and obesity. Retrieved from https://www.cdc.gov/obesity/adult/defining.html
- Centers for Disease Control and Prevention (CDC). (2016-b). *Number of deaths for leading causes of death*. Retrieved from https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm
- Centers for Disease Control and Prevention (CDC). (2016-c). *Overweight & obesity*.

 Retrieved from https://www.cdc.gov/obesity/childhood/causes.html
- Chippendale, T., & Boltz, M. (2015). Living legends: Effectiveness of a program to enhance sense of purpose and meaning in life among community-dwelling older adults. *American Journal of Occupational Therapy*, 69, 6904270010. http://dx.doi.org/10.5014/ajot.2015.014894

- Crepeau, E.B., Cohn, E.S. & Boyt-Schell, B.A. (2009). Willard & Spackman's occupational therapy (11th ed.). Baltimore, MD.: Wolters Kluwer/Lippincott Williams & Wilkins.
- Crystal. (2016). Healthy ocean snack for kids Fishbowl beach fun. Retrieved from http://www.survivingateacherssalary.com/kids-fishbowl-ocean-beach-fun-healthy-snacks-recipe/
- DAREBEE. (2017). Three minute seated yoga. Retrieved from https://darebee.com/
- Derksen, D. J. (2012). Preventative services for adults: Are your patients taking advantage of these benefits? Retrieved from http://www.medscape.org/viewarticle/772859?src=cmsaca
- De Souza, E. M. (2003). Intergenerational interaction in health promotion: A qualitative study in brazil. *Revista de Saude Publica*, *37*(4), 463-469. doi:10.1590/S0034-89102003000400011
- Diabetes Research Institute Foundation. (2016). *What is diabetes?* Retrieved from https://www.diabetesresearch.org/what-is-diabetes
- E. (2016). *Banana split bites*. Retrieved from http://www.lifeloveliz.com/2015/05/04/banana-split-bites/#_a5y_p=3734394
- Elgar, F. J., Davis, C. G., Wohl, M. J., Trites, S. J., Zelenski, J. M., and Martin, M. S. (2011). Social capital, health, and life satisfaction in 50 counties. *Health & Place*, *17*(5), 1044-1053.
- Ertel, K., Glymour, M., & Berkman, L. (2008). Effects of social integration on preserving memory function in a nationally representative US elderly population. *American Journal Of Public Health*, 98(7), 1215-1220. doi:10.2105/AJPH.2007.113654

- Fair, C. D., Davis, A., & Fischer, V. (2011). It makes them so happy: 4th-graders' reflections on intergenerational service learning. *Childhood Education*, 87(3), 177-184.
- Fardet, A., & Rock, E. (2015). From a reductionist to a holistic approach in preventive nutrition to define new and more ethical paradigms. *Healthcare*, *3*(4), 1054-1063. doi:10.3390/healthcare3041054
- Fuentes, L. (2017, Feb. 27). Healthy apple donuts. Retrieved from http://www.laurafuentes.com/healthy-apple-donuts/
- Fujiwara, Y., Kishida, K., Terao, M., Takahara, M., Matsuhisa, M., Funahashi, T., & Shimizu, Y. (2011). Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study. *Journal of Advanced Nursing*, 67(9), 1952-1962. doi:10.1111/j.1365-2648.2011.05640.x
- Galbraith, B., Larkin, H., Moorhouse, A., & Oomen, T. (2015). Intergenerational programs for persons with dementia: A scoping review. *Journal Of Gerontological Social Work*, 58(4), 357-378.

 doi:10.1080/01634372.2015.1008166
- Generations United. (2016). Our work. *Programs*. Retrieved from http://www.gu.org/OURWORK/Programs.aspx
- Godman, H. (2012). *Backyard gardening: Grow your own food, improve your health*.

 Retrieved from https://www.health.harvard.edu/blog/backyard-gardening-grow-your-own-food-improve-your-health-201206294984
- Hwang, E. & Peralta-Catipon, T. (2015). Health enhancement lifestyle profile (HELP) & HELP screener older adult version (age 55 and older): Guide for clinicians.

- Retrieved from https://www4.csudh.edu/Assets/CSUDH-Sites/OT/docs/ EricHwang-Health-Enhancement-Lifestyle-Profile-(HELP)-Guide-for-Clinicians.pdf
- Kori at Home. (May 3). Delicious and healthy strawberry oatmeal smoothie recipe.

 Retrieved from https://koriathome.com/delicious-and-healthy-strawberryoatmeal-smoothie-recipe/
- Koutsogeorgou, E., Davies, J. K., Aranda, K., Zissi, A., Chatzikou, M., Cerniauskaite,
 M., & Leonardi, M. (2014). Healthy and active ageing: Social capital in health
 promotion. *Health Education Journal*, 73(6), 627-641.
 doi:10.1177/0017896913509255
- Kozak, J. [HASfit]. (2016). 20 min exercise for seniors, elderly, & older people Seated chair exercise senior workout routines. [Video File]. Retrieved from https://www.youtube.com/watch?v=8CE4ijWlQ18&utm_content=buffer284e2&utm_me dium=social&utm_source=pinterest.com&utm_campaign=buffer
- Kugel, J., Hemberger, C., Krpalek, D., & Javaherian-Dysinger, H. (2016). Occupational therapy wellness program: Youth and parent perspectives. *American Journal Of Occupational Therapy*, 70(5), 1-8. doi:10.5014/ajot.2016.021642
- Kuo, F., Pizzi, M. A., Chang, W., Koning, S. J., & Fredrick, A. S. (2016). Exploratory study of the clinical utility of the pizzi healthy weight management assessment (PHWMA) among burmese high school students. *American Journal of Occupational Therapy*, 70(5). doi:10.5014/ajot.2016.021659
- L, S. (2015). 13 healthy snacks for kids that are easy to make. Retrieved from http://incredibleplayhouse.com/13-healthy-snacks-for-kids-that-are-easy-to-make/

- Lau, M., & Li, W. (2011). The extent of family and school social capital promoting positive subjective well-being among primary school children in shenzhen, china. *Children and Youth Services Review*, *33*(9), 1573-1582.
- Laser, J. A., & Leibowitz, G. S. (2009). Promoting positive outcomes for healthy youth development: Utilizing social capital theory. *Journal of Sociology and Sociology Welfare*, 87(102), 86-102.
- Mayo Foundation for Medical Education and Research (MFMER). (2015). *Exercise and stress: Get moving to manage stress*. Retrieved from http://www.mayoclinic.org/ healthy-lifestyle/stress-management/in-depth/exercise-and-stress/art-20044469?pg=1
- Miller, L. & Smith, A. (n.d.) American Psychological Association (APA). *Stress: The different kinds of stress*. Retrieved from http://www.apa.org/helpcenter/stress-kinds.aspx
- Minnesota Department of Education. (2016-a). *Afterschool and community connections*.

 Retrieved from http://education.state.mn.us/MDE/dse/fsce/mod/con/index.htm
- Minnesota Department of Education. (2016-b). *Healthy eating*. Retrieved from http://education.state.mn.us/MDE/dse/health/Nut/
- Minnesota Department of Health. (2017-a). *Active schools minnesota*. Retrieved from http://www.health.state.mn.us/divs/hpcd/chp/cdrr/physicalactivity/activeschool.ht ml
- Minnesota Department of Health. (2017-b). *Television/screen time, and health*. Retrieved from http://www.health.state.mn.us/divs/hpcd/chp/cdrr/obesity/tvviewing /tvscreeninfo.html

- Moor, N., de Graff, P. M., & Komter, A. (2013). Family, welfare state generosity and the vulnerability of older adults: A cross national study. *Journal of Aging Studies*, 27(4), 347-257.
- Murayama, Y., Ohba, H., Yasunaga, M., Nonaka, K., Takeuchi, R., Nishi, M., & Fujiwara, Y. (2015). The effect of intergenerational programs on the mental health of elderly adults. *Aging & Mental Health*, *19*(4), 306-314. doi:10.1080/13607863.2014.933309
- National Health and Medical Research Council. (2017). *Nutrition*. Retrieved from https://www.nhmrc.gov.au/health-topics/nutrition
- O' Brien, J. C. (2017). Model of human occupation. In Hinojosa, Kramer, & Brasic Royeen (Eds.). *Perspectives on human occupation: Theories underlying practice*. Philadelphia: F.A. Davis Company.
- Office of Disease Prevention and Health Promotion (ODPHP). (2017). *Nutrition,*physical activity, and obesity. Retrieved from

 https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhitopics/Nutrition-Physical-Activity-and-Obesity
- Paul, J. [DrSmarty]. (2016). Nutrition facts labels How to read For kids Dr. smarty. [Video file]. Retrieved from https://www.youtube.com/watch?v=ylY0w04AAVk
- Poulsen, T., Siersman, V. D., Lund, R., Christensen, U., Vass, M., & Avlund, K. (2014).

 Educational intervention and functional decline among older people: The modifying effects of social capital. *Scandinavian Journal of Public Health*, 42(3), 295-303. doi:10.1177/1403494813520353

- Public Health. (2016). What are the consequences? Retrieved from http://www.publichealth.org/public-awareness/obesity/consequences/
- Public Health. (2016). *What can we do?* Retrieved from http://www.publichealth.org/public-awareness/obesity/what-can-we-do/
- Public Health. (2016). *Why are Americans obese?* Retrieved from http://www.publichealth.org/public-awareness/obesity/
- Putman, R. (2000). *Bowling alone: The collapse and revival of american community*. Simon & Schuster, New York.
- Raghavan, V. (2016, Sept. 24). Negative effects of too much screen time. [Video file].

 Retrieved from https://www.youtube.com/watch?v=3og0ETETqH4
- Sakurai, R., Yasunaga, M., Murayama, Y., Ohba, H., Nonaka, K., Suzuki, H., Fujiwara, Y. (2016). Long-term effects of an intergenerational program on functional capacity in older adults: Results from a seven-year follow-up of the REPRINTS study. *Archives of Gerontology and Geriatrics*, 64, 13-20. doi:10.1016/j.archger.2015.12.005
- Shrivastava, S., Shrivastava, P., & Ramasamy, J. (2013). Role of self-care in management of diabetes mellitus. *Role of self-care in management of diabetes mellitus*, 12(14), 1-5. doi:10.1186/2251-6581-12-14
- Stanford Healthcare. (2016). *Obesity prevention*. Retrieved from https://stanfordhealthcare.org/medical-conditions/healthy-living/obesity/prevention.html
- Strand, K. A., Francis, S. L., Margrett, J. A., Franke, W. D., & Peterson, M. J. (2014).

 Community-based exergaming program increases physical activity and perceived

- wellness in older adults. *Journal of Aging and Physical Activity*, 22(3), 364-371. doi:10.1123/japa.22.3.364
- Taylor, R. (2008). The intentional relationship: Occupational therapy and the use of self.

 Philadelphia: F.A. Davis Company
- Ted Ed. (2015, Oct. 22). How stress affects your body- Sharon horesh bergquist [Video file]. Retrieved from https://www.youtube.com/watch?v=v-t1Z5-oPtU
- The American Institute of Stress (AIS). (2017). *What is stress?* Retrieved from https://www.stress.org/what-is-stress/
- Thompson, M. (n.d.). Growing green beans in a container. Retrieved from http://homeguides.sfgate.com/growing-green-beans-container-42230.html
- Tovian, S., Thorn, B., Coons, H., Labott, S., Burg, M., Surwit, R., & Bruns, D. (n.d.).

 American Psychological Association (APA). *Stress effects on the body*. Retrieved from http://www.apa.org/helpcenter/stress-body.aspx
- Tufts Associated Health Plans. (2017). *The importance of good nutrition*. Retrieved from https://www.tuftsmedicarepreferred.org/healthy-living/expert-knowledge/importance-good-nutrition
- U.S. Centers for Medicare and Medicaid Services. (2017). *Medicare diabetes prevention*program (MDPP) expanded model. Retrieved from

 https://innovation.cms.gov/initiatives/medicare-diabetes-prevention-program/
- U.S. Department of Agriculture. (2017). *Healthier school day*. Retrieved from https://www.fns.usda.gov/healthierschoolday/tools-schools-focusing-smart-snacks
- USFoodandDrugAdmin. (2011, Feb. 24). The food label and you: Game show review (Are you smarter than a food label?) [Video file]. Retrieved from

- https://www.youtube.com/watch?v=DjFVOZ_ALuM&list=PLBiQm1QZxN6jPz9 8HFw C76vZr2h27J94T&index=2
- U.S. Food and Drug Administration. (2016). *Using the nutrition facts label: A how-to guide for older adults*. Retrieved from https://www.fda.gov/food/resourcesforyou/consumers/ucm267499.htm
- U.S. Government Publishing Office. (2017). *Part 210- National school lunch program*.

 Retrieved from https://www.ecfr.gov/cgibin/textidx?SID=4c211a738d61099

 39c6054a6286ac109&mc=true&node=pt7.4.210&rgn=div5#se7.4.210_11
- U.S. National Library of Medicine. (2017) *Screen time and children*. Retrieved from https://medlineplus.gov/ency/patientinstructions/000355.htm
- Werner, D., Teufel, J., Holtgrave, P., & Brown, S. (2012). Active generations: An intergenerational approach to preventing childhood obesity. *Journal of School Health*, 82(8), 380-386. doi: 10.1111/j.1746-1561.2012.00713.x
- World Health Organization (WHO). (2017-a). *Obesity and overweight*. Retrieved from www.who.int/mediacentre/factsheets/fs311/en/
- World Health Organization (WHO). (2017-b). Health promotion and disease prevention through population-based interventions, including action to address social determinants and health inequity. Retrieved from http://www.emro.who.int/about-who/public-health-functions/health-promotion-disease-prevention.html
- World Health Organization (WHO). (2017-c). *Health promotion*. Retrieved from http://www.who.int/topics/health_promotion/en/

- World Health Organization (WHO). (2017-d). Health promotion. *The Ottawa Charter for Health Promotion*. Retrieved from http://www.who.int/healthpromotion/conferences/previous/ottawa/en/
- World Health Organization (WHO). (2009). Milestones in health promotion: Statements from global conferences. *Jakarta declaration on leading health promotion into the 21st century*. Retrieved from http://www.who.int/healthpromotion/Milestones Health_Promotion_05022010.pdf