

Eastern Kentucky University

## Encompass

---

Occupational Therapy Doctorate Capstone  
Projects

Occupational Science and Occupational  
Therapy

---

2020

### Occupational Engagement in Adults under age 65 living in Skilled Nursing Facilities (OEA-SNF)

Rebecca A. King

Eastern Kentucky University, the\_kings@adelphia.net

Follow this and additional works at: <https://encompass.eku.edu/otdcapstones>



Part of the [Occupational Therapy Commons](#)

---

#### Recommended Citation

King, Rebecca A., "Occupational Engagement in Adults under age 65 living in Skilled Nursing Facilities (OEA-SNF)" (2020). *Occupational Therapy Doctorate Capstone Projects*. 66.

<https://encompass.eku.edu/otdcapstones/66>

This Open Access Capstone is brought to you for free and open access by the Occupational Science and Occupational Therapy at Encompass. It has been accepted for inclusion in Occupational Therapy Doctorate Capstone Projects by an authorized administrator of Encompass. For more information, please contact [Linda.Sizemore@eku.edu](mailto:Linda.Sizemore@eku.edu).

Occupational Engagement in Adults under age 65 living in  
Skilled Nursing Facilities (OEA-SNF)

Presented in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Occupational Therapy

Eastern Kentucky University

College of Health Sciences

Department of Occupational Science and Occupational Therapy

Rebecca King

2020

**EASTERN KENTUCKY UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY**

This project, written by Rebecca King under direction of Dr. Renee Causey-Upton,  
Faculty Mentor, and approved by members of the project committee, has been presented  
and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

CAPSTONE COMMITTEE

*Renee Causey-Upton* 12/3/2020  
Date  
Faculty Mentor

Leah Shea Cornelison Simpkins 12/03/2020  
Date  
Committee Member

**EASTERN KENTUCKY UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL  
THERAPY**

Certification

We hereby certify that this Capstone project, submitted by Rebecca King, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

Approved:

*Shirley O'Brien*

*12-15-2020*

---

Shirley O'Brien, PhD, OTR/L, FAOTA  
Program Coordinator, Doctor of Occupational Therapy

---

Date

*Dana Howell*

12-15-2020

---

Dana Howell, PhD, OTD, OTR/L, FAOTA  
Chair,  
Department of Occupational Science and Occupational Therapy

---

Date

Copyright by Rebecca King, 2020

All Rights Reserved

## Executive Summary

**Background:** Adults under age 65 living in skilled nursing facilities is a growing population and lack of occupational engagement in skilled nursing facilities is well documented. There is also a documented lack of training programs for skilled nursing facility staff to appropriately care for this population's occupational needs. Occupational Therapists are uniquely qualified to educate and train skilled nursing facility staff in the occupational engagement needs of this group.

**Purpose:** There is a lack of documented research regarding adults under age 65 living in skilled nursing facility and training programs for staff that care for this group. To address this gap in knowledge, the purpose of this study is to examine the relationship between staff training and the knowledge and perceived competence of staff related to promotion of occupational engagement in adults under age 65 living in skilled nursing facilities.

**Theoretical Framework:** This research project is guided by four theories: the social ecological model for the overall research project, cognitive constructivism for the design of the educational program, self-determination theory for development of outcome measure related to perceived confidence of participants, and occupational justice theory for guidance related to the issues of occupational justice and deprivation related to this topic.

**Methods:** This pre-experimental one group pretest and posttest research design explored the effects of an occupation-based training program for skilled nursing facility activities professionals on the participant's knowledge and perceived competence. The primary locations for this study were two skilled nursing facilities in Cincinnati, Ohio. Eight participants total were recruited from both locations. Inclusion criteria included: able to speak English, able to read and write, currently work with adults under age 65 in their work setting, have worked at the research study site for at least 3 months, and able to give their own informed consent. This research study incorporated quantitative research methods with training content delivered in a webinar format and data collected via two written outcome measures.

**Results:** Eight activities professionals participated in this study. Statistical analysis of pre and post test data indicated a statistically significant improvement in knowledge and perceived competence of participants following participation in an occupation-based training program.

**Conclusions:** Skilled nursing facility staff could benefit from occupation-based training in order to meet the occupation needs of adults under age 65 living in skilled nursing facilities. Occupational therapists have the necessary skills to act as a consultant and educator to the staff in skilled nursing facilities in order to improve occupational engagement and quality of life for all residents.

## **Acknowledgements**

I would like to acknowledge and thank all of the people who guided me and supported me on this educational journey.

I would like to thank Dr. Renee Causey-Upton and Dr. Leah Simpkins for their support and guidance throughout the course of capstone project. Their expertise was invaluable in bringing this project to fruition. I would also like to thank Dr. Shirley O'Brien and Dr. Dana Howell for their support and guidance throughout the course of my educational journey over the last few years.

I would like to thank my family for their support throughout my journey including their endless help with all manner of tasks while I was busy completing my education. The support of my husband and both of my children was crucial for me to be able to complete this journey.

**EASTERN KENTUCKY UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY**

**CERTIFICATION OF AUTHORSHIP**

Submitted to: Dr. Renee Causey-Upton

Student's Name: Rebecca King

Title of Submission: Occupational Engagement in Adults under age 65 living in Skilled Nursing Facilities (OEA-SNF)

*Certification of Authorship: I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas, or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications. I also certify that this paper was prepared by me for this purpose.*

Student's Signature: *Rebecca King*

Date of Submission: 12/03/2020



## Table of Contents

<i>Section I: Nature of Project and Problem Identification</i> .....	1
<b>Introduction:</b> .....	1
<b>Problem Statement:</b> .....	3
<b>Project Purpose:</b> .....	4
<b>Project Objectives:</b> .....	5
<b>Theoretical Framework:</b> .....	5
<b>Study Significance:</b> .....	9
<b>Summary:</b> .....	10
<i>Section II: Literature Review</i> .....	11
<b>Introduction:</b> .....	11
<b>Population Defined:</b> .....	11
<b>Leisure Defined and the Importance of Leisure:</b> .....	12
<b>Work Defined and Importance of Work Roles:</b> .....	14
<b>Social Participation Defined and Importance of Social Participation:</b> .....	16
<b>Lack of Occupational Engagement in Skilled Nursing Facilities:</b> .....	17
<b>Occupational Justice/Injustice Defined:</b> .....	18
<b>Conclusion:</b> .....	20
<i>Section III: Methods</i> .....	21
<b>Project Design</b> .....	21
<b>Research Questions and Hypotheses</b> .....	21
<b>Setting</b> .....	22
<b>Participants</b> .....	22
<i>Inclusion Criteria</i> .....	23
<i>Exclusion Criteria</i> .....	23
<i>Recruitment</i> .....	23
<b>Data Collection</b> .....	23
<b>Data Analysis</b> .....	24
<b>Instruments for Data Collection:</b> .....	24
<b>Study Rigor</b> .....	25
<b>Ethical Considerations:</b> .....	26

<b>Project Timeline:</b> .....	<b>27</b>
<b><i>Section IV: Results and Discussion</i></b> .....	<b>28</b>
<b>Introduction:</b> .....	<b>28</b>
<b>Results:</b> .....	<b>28</b>
<b>Discussion:</b> .....	<b>32</b>
<i>Knowledge:</i> .....	33
<i>Competence:</i> .....	34
<i>Occupational Justice:</i> .....	34
<b>Study Strengths:</b> .....	<b>35</b>
<b>Study Limitations:</b> .....	<b>35</b>
<b>Implications for Practice:</b> .....	<b>36</b>
<b>Future Research:</b> .....	<b>37</b>
<b>Summary:</b> .....	<b>37</b>
<b><i>References</i></b> .....	<b>39</b>
<b><i>Appendix A</i></b> .....	<b>51</b>
<b><i>Appendix B</i></b> .....	<b>52</b>
<b><i>Appendix C</i></b> .....	<b>55</b>

## **List of Tables**

Table 1: Occupational injustices defined (Wilcock & Townsend, 2004) .....	8
Table 2: Project Timeline.....	27
Table 3: Knowledge statistical analysis .....	29
Table 4: Perceived competence statistical analysis.....	31

## **List of Figures**

Figure 1: Knowledge change by participant bar graph .....	30
Figure 2: Knowledge change by participant line graph .....	30
Figure 3: Perceived competence changes by participant bar graph .....	31
Figure 4: Perceived competence changes by participant line graph .....	32

## **Section I: Nature of Project and Problem Identification**

### **Introduction**

Adults under the age of 65 make up approximately one third of the total population of individuals living in nursing homes and this population in nursing homes is anticipated to double in the next thirty years (Family Caregiver Alliance, 2015). This would indicate that approximately 9 million individuals under the age of 65 in the United States will be living in a nursing home by 2050 (Family Caregiver Alliance, 2015). According to Sedensky (2011), one in every seven residents in a nursing home is under the age of 65. The number of individuals under age 65 have increased over the years due to the closure of long-term mental health facilities and the advances in medical care that allow individuals to survive traumatic events (Sedensky, 2011). Although this population continues to increase, there has been little to no documented research about this group. However, there has been extensive research with adults over age 65 living in skilled nursing facilities including experiences, research regarding occupational engagement, and training programs for staff.

Chang (2013) completed a phenomenological study that examined the lived experiences of individuals over 65 years of age residing in nursing homes in Korea. Chang (2013) was able to identify multiple themes that included feelings of loneliness, loss of sense of self and need for individualized care. Melin-Johansson et al. (2013) found that individuals in nursing homes had less concern about their appearance, had more appreciation for life and experiences and had less reliance on social norms. The participants in this study were all over age 65 as well (Melin-Johansson et al., 2013). Tappen (2016) reports that those living in skilled nursing facilities have both positive and negative experiences. The positive aspects included feeling like they belong,

having a comfortable place to live, and having activities available that improve quality of life and allow for engagement in the community (Tappen, 2016). The negative aspects included decreased response time by staff and decreased interaction with staff (Tappen, 2016). The participants in this study had an average age of 77 (Tappen, 2016). Occupational engagement and deprivation have also been studied in adults over age 65 living in skilled nursing facilities.

There has been a significant amount of research about occupational engagement and/or deprivation for adults over age 65 living in skilled nursing facilities. Morgan-Brown et al. (2019) found that adults diagnosed with dementia in a skilled nursing facility in Ireland only spent 38% of their day engaged in some sort of occupation and 62% of their day not engaged in any occupation. Magasi and Hammel (2009) examined the occupational experiences of women with disabilities in skilled nursing facilities and found that the participants reported a lack of occupational engagement, control and choice in their setting. Uemera et al. (2018) found that newly admitted skilled nursing facility residents had a decrease in activity participation following admission that could lead to occupational deprivation. Similarly, French (2002) found that skilled nursing facilities created a culture that has led to dependency and occupational deprivation of its residents. These studies demonstrate the need for occupational engagement in adults over age 65 living in skilled nursing facilities. There have been some training programs or models developed for staff caring for adults over age 65 living in skilled nursing facilities related to occupational engagement and/or activity participation.

Buettner (2009) completed a pilot training program for skilled nursing staff regarding residents' activity participation administered by a recreational therapist. This research study found that the trained staff showed improvements in knowledge and engagement skills following

training (Buettner, 2009). Harvey (2016) found that an occupational engagement training program for dementia care for skilled nursing facility staff improved staff members' ability to engage residents in occupations and improved their confidence in this area. Causey-Upton (2015) proposed a model of training for occupational therapists and other staff caring for residents living in skilled nursing facilities that included components of occupational justice and the need for increased autonomy and occupational engagement for these residents.

Although there has been a plethora of research regarding occupational engagement, experiences and training for staff caring for adults over age 65 living in skilled nursing facilities, there has been little to no research for the target population for this research study. This research study is designed to address a gap in knowledge and research for adults under age 65 living in skilled nursing facilities. The goal of this research study is to develop and assess the effectiveness of an educational program for skilled nursing facility activities staff. This educational program is designed to improve the knowledge of staff and improve perceived competence related to the promotion of occupational engagement in adults under age 65 living in skilled nursing facility settings. Due to the nature and intended purpose of this research study, there could be benefits and significance related to the healthcare outcomes of the target population, the practice of occupational therapy, healthcare delivery and healthcare policy.

### **Problem Statement**

Adults under the age of 65 make up approximately one third of the total population of individuals living in skilled nursing facilities and this specific group of individuals in skilled nursing facilities is anticipated to double in the next thirty years (Family Caregiver Alliance, 2015). Older nursing home residents have previously been found to have reduced occupational

engagement, and many are missing the physical and psychosocial benefits of participating in leisure, social, and worker role related occupations (Chang, 2013; Meeks et al., 2007; Chen, 2010; Ice, 2002). There is little to no documented research on occupational engagement or activity participation for the population below 65 years old living in the skilled nursing facility environment. There are also no documented training programs for skilled nursing facility activities staff related to promotion of occupational engagement with this younger population, placing this group at a high risk for occupational deprivation. Occupational deprivation has been found to decrease one's physical function, overall health and well-being (Durocher, 2013). Research related to the development and implementation of a specific training program for skilled nursing facility staff for promotion of occupational engagement is imperative to prevent occupational deprivation and improve quality of life for this target population.

### **Project Purpose**

The purpose of this study is to examine the relationship between staff training and the knowledge and perceived competence of staff related to promotion of occupational engagement in adults under age 65 living in skilled nursing facilities. Staff training is defined as an occupation-based education program focused on leisure, social participation, and work role participation designed to improve knowledge and perceived competence regarding promotion of occupational engagement in the target population. Staff knowledge is defined as the practical understanding and skills to promote occupational engagement in the target population. Perceived competence is defined as staff members' ability to respond positively to the idea of occupational engagement promotion and their comfort level with this topic with the target population. The dependent variables, knowledge and perceived competence, will be assessed before and after

staff training using a pre and posttest of knowledge and pre and posttest perceived competence scale related to promotion of occupational engagement.

### **Project Objectives**

Null Hypothesis 1: An occupation-based educational program focused on promoting leisure, social participation, and work role participation will have no effect on the knowledge of skilled nursing activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

Alternate Hypothesis 1: An occupation-based educational program focused on promoting leisure, social participation and work role participation will improve the knowledge of skilled nursing activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

Null Hypothesis 2: An occupation-based educational program focused on promoting leisure, social participation and work role participation will have no effect on the perceived competence of skilled nursing facility activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

Alternative Hypothesis 2: An occupation-based educational program focused on promoting leisure, social participation and work role participation will positively influence the perceived competence of skilled nursing facility activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

### **Theoretical Framework**

This research project is guided by four theories: the social ecological model for the overall research project, cognitive constructivism for the design of the educational program, self-



determination theory for development of outcome measure related to perceived confidence of participants, and occupational justice theory for guidance related to the issues of occupational justice and deprivation related to this topic. These theories also guided the development of the research questions and goals.

The theory that was utilized for the construction of this educational experience is the theory of cognitive constructivism. In this theory, the learner views and incorporates new knowledge through the lens of previous experience, current development of cognition, culture, and previous knowledge (University of California (UC) Berkeley, 2016). The learner must then be an active participant in the learning process in order to effectively incorporate the new knowledge versus having a more passive role. The role of the educator, when using this theory, is to provide resources and act as a coach or guide through the self-discovery learning process (UC Berkeley, 2016). When using this theory, the learner must be intrinsically motivated to learn versus a system of rewards and/or punishments. This theory promotes the development of self-directed learning, clinical skills, problem solving and critical thinking skills for the learner (Torre et al., 2006). These principles of self-directed learning, active learner participation and promotion of clinical skills development aligns with the purpose and goals of this educational experience. Cognitive constructivism theory also best fits with the target audience members who are educated professionals with prior experience and knowledge upon which their new learning will be built.

The social ecological model examines behaviors and how behaviors are shaped by the social environment and influences in order to develop and promote successful programs for healthy change (Stokols, 1996). This model starts with program development with the individual

with intended progression to the social network, environment or organization, community and finally to public policy (Stokols, 1996). This model is important to this research project because the educational program for this research study is designed to increase knowledge and promote a positive influence on staff members' perceived competence related to promotion of occupational engagement for the target population. This educational program is designed to promote improved knowledge and perceived competence related to this topic at the individual, social network and environmental levels.

The self-determination theory examines intrinsic and extrinsic motivation of individuals based upon three psychological needs: competence, relatedness, and autonomy (Niemic & Ryan, 2009). Competence, in this theory, refers to the ability to master and control a result or outcome (Ryan & Deci, 2000). Relatedness refers to interacting with and/or caring for others (Ryan & Deci, 2000). Autonomy refers to make independent decisions and be in control of one's own life (Ryan & Deci, 2000). The focus of this capstone is related to competence as defined by the self-determination theory. This competence component can help to determine if the participants are motivated to promote occupational engagement for the target age group. The Perceived Competence Scale for this capstone is also based on the self-determination theory as it relates to competence and motivation and will be utilized as one of the outcome measures.

The occupational justice theory and framework highlights the importance of inclusion of every individual in occupations that are meaningful to them (Townsend & Wilcock, 2004). This theory also examines the environmental and contextual components related to an individual's ability to participate or not participate in desired occupations (Townsend & Wilcock, 2004). This framework includes four components of occupational rights including meaning, choice, balance,

and participation (Townsend & Wilcock, 2004). This theory also includes four factors of occupational injustice including alienation, deprivation, marginalization, and imbalance (Townsend & Wilcock, 2004). Table 1 gives a detailed explanation of each type of occupational injustice with examples.

Table 1: Occupational injustices defined (Wilcock & Townsend, 2004)

Occupational Injustice Type	Definition	Example
Occupational alienation	Lack of access to meaningful activity	No access to a work role when that is a meaningful occupation
Occupational deprivation	Denial of right to participate in occupations that are focused on health and social pursuits	No access to peers when monthly lunch with peers is a desired occupation
Occupational marginalization	Denial of right to choose one's own occupations	Lack of transportation to a desired task or activity
Occupational imbalance	Denial of right to participate in a variety of occupations, Individual may be over occupied, unoccupied, or underoccupied.	Desired activities are not offered in individual's area or location or individual has too many occupations that could cause increased stress.

This theory is important to this research project because this research project is designed to educate staff on how to promote occupational engagement (occupational justice) and decrease risk of occupational deprivation (occupational injustice).

### **Study Significance**

This study could have a significant impact on the everyday practice of occupational therapy. The American Occupational Therapy Association (AOTA, 2020) defines that one of the roles of occupational therapy practice is to promote occupational engagement in order to maintain or improve health. This study promotes the use of occupational therapists in an educational/advisory role for nursing home activities staff in order to improve and promote occupational engagement in this target population. This area of practice could be a new niche for occupational therapists to address the needs of their clients. Healthcare outcomes could be improved for the target population, as a result of this study, by decreasing occupational deprivation and associated detrimental effects including decreased physical and emotional health. This study could also have a significant impact on healthcare delivery and policy by the implementation of changes in healthcare practices by activities staff and their care of this specified group of residents. Healthy People 2030 (2020) initiatives state that the use of clinical preventative services and changes to social and environmental determinants could lead to improved overall population health. This study could have a wide range of positive effects in these areas with the intended benefit of improvement in health and well-being for the target population.

**Summary**

This research study is designed to address the growing need for staff education related to promoting occupational engagement in adults under age 65 living in skilled nursing facilities. This study included quantitative methods to fully assess the participants' knowledge and perceived competence following implementation of the educational program. This study incorporates components of occupational justice, cognitive constructivism, and the social ecological model to fully support the research design and implementation. This study could have a significant impact on the target population, participants and the overall healthcare environment.

## **Section II: Literature Review**

### **Introduction**

The purpose of this research study is to examine the effectiveness of an occupation-based education program for skilled nursing facility activities staff related to the promotion of occupational engagement of adults under age 65 living in skilled nursing facilities. The population for the training program was selected because this population is not in the typical age range of residents that are living in a skilled nursing facility and this population is at a higher risk of experiencing decreased occupational engagement. This educational program focuses on three key types of occupation: leisure, work/volunteer roles and social participation. These types of occupations have been shown to have a variety of benefits related to health, well-being and quality of life. There is a documented lack of occupational engagement in skilled nursing facilities and this lack of engagement could lead to the detrimental effects of occupational injustice. This research study is designed to prevent these harmful effects by educating activities staff on methods to promote healthy occupational engagement.

### **Population Defined**

The population selected for the training program for staff for this study is adults under age 65 living in skilled nursing facilities. This population was selected because this population is not part of the typical population that resides in a skilled nursing facility. Skilled nursing facilities or nursing homes typically cater to older adults that require some type of functional assistance or care. In developed countries, the World Health Organization (WHO) (2020) generally defines an older adult as a person over age sixty-five and this is the definition that is utilized for this study. Health in Aging (2020) reports that about half of the residents that are

living in skilled nursing facilities are over age eighty-five. However, the target population for the educational program in this study, adults under age 65, is a population that is growing rapidly as residents living in skilled nursing facilities. Adults under the age of 65 make up approximately one third of the total population of individuals living in nursing homes, with the number of all individuals residing in nursing homes expected to double in the next thirty years (Family Caregiver Alliance, 2015). This would indicate that approximately 9 million individuals under the age of 65 in the United States will be living in a nursing home by 2050 (Family Caregiver Alliance, 2015). The rates of individuals under 65 residing in skilled nursing facilities range from 16% to one third of the total population of residents. According to Sedensky (2011), one in every seven residents in a nursing home is under the age of 65. The number of individuals under age 65 have increased over the years due to the closure of long-term mental health facilities and the advances in medical care that allow individuals to survive traumatic events (Sedensky, 2011). Howley (2019) reports that close to 16% of the residents in skilled nursing facilities are under age 65. The needs of adults under age 65 are very different than the needs of adults over age 65 in terms of leisure, work roles and social participation.

### **Leisure Defined and the Importance of Leisure**

The American Occupational Therapy Association (AOTA) (2020) defines leisure as engagement in activities during free time which is time that is outside of work or other daily obligations like self-care or sleep. Leisure activities can vary based on age group and stage in life. Older adults typically spend their leisure time participating in some of the following activities: walking, gardening, games, watching movies or television and going to music events (McDaniel, 2018). Szanton et. al (2014) found that the most common leisure activities for older

adults included walking, reading, outdoor maintenance, some sports type activities and arts and crafts. Younger adults, those under age 65, typically participate in the following leisure activities: communication/socialization, watching television, relaxation/meditation techniques, playing games, spending time on the computer/internet, reading, and sports or exercise (American Time Use Study, 2018). Statista (2020) found the most common leisure activities in adults that were ages 18 to 64 were watching television, reading, computer activities, spending time with friends or family, going out to the movies, exercising, video games, running/jogging, gardening and going to concerts. It is important for skilled nursing facility activities staff to understand the difference in leisure pursuit preferences between older adults and younger adults in order to provide the best quality of care. Leisure activities have also been found to have a variety of health benefits for all ages.

Leisure activities have varied effects on an individual's health and well-being. Multiple studies have found physical health benefits from leisure including improved fitness and decreased cardiovascular risk factors (Singh & Kiran, 2014; Mensink et al., 2019). Various studies have also found psychosocial benefits including decreased stress levels, stimulation of cognition, increased creativity, a sense of healthy competition, increased alertness, improved mental health and improved social skills and socialization (Singh & Kiran, 2014; Patterson, 1996; Tinsley & Eldredge, 1995). McDonald and Schreyer (1991) discovered that there are many spiritual benefits of leisure including feelings of belonging with others, peaceful feelings and increased feelings of inspiration. Leisure has also been shown to provide benefits in learning abilities including improved knowledge, memory, and problem solving (Roggenbuck et al., 2018). There is a myriad of benefits of participating in leisure activities and Di Bona (2000)



found that the benefits and needs met by leisure activities were not different among different age groups, gender or parental status. Chen and Chippendale (2018) also discuss how leisure should be considered not only as a type of treatment intervention, but as a daily part of life to improve health and well-being.

Lack of leisure participation and activities can lead to detrimental effects to health as well. Lack of leisure activities has been shown to lead to increased stress, sedentary lifestyles, decreased coping strategies, increased risk for physical/mental illnesses and increased healthcare costs (Mannell, 2007; Coleman & Seppo, 1993). With the known benefits of leisure and related health risks of lack of leisure, it is essential that skilled nursing facility activities staff promote the appropriate leisure choices for all age groups that are serviced in their facilities.

### **Work Defined and Importance of Work Roles**

AOTA (2020) defines work as an act of labor that could include construction of items, evaluating processes, and managing others in either a paid or unpaid capacity. Older adults are typically not in traditional work roles secondary to retirement. Anspach (2019) reports that the average retirement age for men is sixty-five and for women is sixty-three. Older adults may continue to participate in other work roles such as volunteer participation at various types of work settings. Adults under age sixty-five typically participate in a variety of traditional paid work roles. American Time Use Study (2018) reports that approximately 89% of adults in the United States are employed in paid work roles. Adults under age sixty-five could also be participating in volunteer roles and/or stay at home parent roles. It is important that skilled nursing facility activities staff are trained in the variations of work roles between age groups and the benefits of having a work role.

The role of paid work can have a wide range of physical, psychosocial and emotional benefits for each individual. Modini et.al (2016) found that paid work helped to improve recovery from illness/injury and also improved mental health. Paid employment has been found to improve an individual's physical and mental health (Robertson et al., 2019). Waddell and Burton (2006) found multiple benefits of having a paid work role including: improved sense of identity, improvement in social skills and roles, improved physical fitness, and improved emotional health. Multiple benefits have also been found to occur with unpaid or volunteer work roles.

The act of volunteer work has been found to have many benefits related to physical health including improved fitness, improved well-being, and decreased risk of cognitive impairment (Yueng et al., 2017; Infurna et al., 2016). There are also many psychosocial benefits related to volunteer work including increased satisfaction, improved mental health, decreased symptoms of depression, increased sense of self-fulfillment and belonging, improved integration into a new community, improved quality of life, improved relationships, improved socialization/social skills, decreased stress and an improved sense of successful aging (Yueng et al., 2017; Wood et. al, 2019; Parkinson et al., 2010; Chen, 2016; Poulin, 2014). Chen (2016) found that older male adults who volunteered experienced benefits related to learning including development of wisdom, skills, and/or knowledge from their experiences in this role. Sellon et al. (2016) found similar benefits related to a volunteer role and advocated for the use of volunteer roles in skilled nursing facilities. There is a myriad of benefits of both paid and unpaid work roles. Conversely, there are harmful effects associated with a lack of a work role.

There are many detrimental effects associated with a lack of a work-related role. Voss et. al (2020) found that older adults who were mandated into early retirement experienced declines in mental health areas. Zeng et. al (2019) found that those living with HIV had increased symptoms of depression if they were also unemployed. Adults in Greece reported decreased physical and mental health during periods of unemployment (Drydakis, 2015). There is also documented research that unemployment can increase risk of premature death in adults (Kriegbaum et. al, 2019; Bender & Theodossiou, 2015). With these harmful effects of not having a work role, education and training of skilled nursing facility activities staff on the importance of this type of role is essential.

### **Social Participation Defined and Importance of Social Participation**

AOTA (2020) defines social participation as the merging of various occupations that aids in the engagement of activities with family and friends. Social participation includes interacting with others in one's environment. All age groups participate socially in various forms and/or activities. It is important that every age group has access to their peers in their daily lives along with social participation among generations. There are many benefits for adults related to social participation.

Socialization provides many benefits for all age groups. Physical health benefits of socialization include increased life expectancy, improved physical health, decreased risk of cognitive impairment, decreased risk of chronic conditions like rheumatoid arthritis, improved aging and increased healthy habits related to diet and exercise (Troyer, 2016; Wanchai & Phrompayak, 2019; Pearlman-Avni et al., 2018; National Institute on Aging, 2020).

Psychosocial benefits of socialization include improved mental health, decreased anxiety and

stress, and decreased risk of loneliness and isolation (Troyer, 2016; Cohut, 2018; Wanchai & Phrompayak, 2019; National Institute on Aging, 2020).

There are many harmful effects related to a lack of socialization as well. Lack of socialization can contribute to an increased risk of mortality, elevated blood pressure, decreased physical health, increased risk for depression, increased risk of anxiety, and increased stress with related health decline (National Institute on Aging, 2020; Kawachi & Berkman, 2001). With the documented benefits of social participation and associated risks of a lack of social participation, skilled nursing facility activities staff must understand the importance of social interactions and be able to effectively provide opportunities for this activity for the residents at their facilities. Without the necessary education and training for activities staff in all of these areas, residents in these facilities will be at a continued risk of decreased occupational engagement.

### **Lack of Occupational Engagement in Skilled Nursing Facilities**

There is little to no documented research regarding occupational engagement in adults under age 65 living in skilled nursing facilities, however there is extensive research regarding the experiences of older adults in skilled nursing facilities. Chang (2013) completed a phenomenological study that examined the lived experiences of those in nursing homes in Korea. Chang (2013) was able to identify multiple themes that included feelings of loneliness, loss of sense of self and need for individualized care. Meeks et al. (2007) found that activities need to be more tailored to each resident in order to decrease risk of depression. Chen (2010) found that there was a lack of physical activities offered in skilled nursing facilities due to several barriers. Chen (2010) also found that these barriers could be modified to allow for increased physical activity. Rovner et al. (1994) studied activity participation in nursing homes and found

participation levels to be around 50% overall of the participants that were studied. Kolanowski et al. (2006) discussed the lack of activity engagement in nursing home settings and the need for an increase in functional activities for residents which has been shown to be more effective for promoting participation. Ice (2002) found that most nursing home residents spend much of their time not engaged in any type of activity. Many research studies have found that there is an overall lack of occupational engagement in skilled nursing facilities. This lack of engagement could be considered an occupational injustice with detrimental effects for this vulnerable population.

### **Occupational Justice/Injustice Defined**

Occupational justice is defined as enabling one's ability to participate in desired occupations in order to promote improved health and well-being (Townsend & Wilcock, 2004). Townsend and Wilcock (2004) also defines four rights related to occupational justice which include: right to meaningful activity, right to participate in occupations for health and social reasons, right to choose one's own occupations, and right to participate in a variety of occupations.

Occupational injustice is defined as being denied one or all of these occupational rights (Durocher et al., 2014). There are four types of occupational injustice based upon the four rights described. The first type of occupational injustice is occupational alienation.

Occupational alienation refers to being denied the right to meaningful activities or occupations (Durocher et al., 2014). Occupational alienation can lead to the following detrimental effects: feelings of loneliness, isolation, decreased sense of identity, and feeling as if everything is meaningless (Townsend & Wilcock, 2004). Examples of occupational alienation could include being taken from one's cultural environment and being placed in an environment where no

meaningful occupations are offered with no or limited access to go to another environment (Townsend & Wilcock, 2004). Another area of occupational injustice is occupational deprivation. Occupational deprivation refers to the denial of the right to participate in occupations related to health and social reasons due to circumstances outside of the individual's control (Durocher et al., 2014). Examples of occupational deprivation could include no access to paid or volunteer employment, disability issues, incarceration, and stereotyping (Townsend & Wilcock, 2004). Occupational deprivation can have negative physical and psychosocial health effects (Townsend & Wilcock, 2004).

Occupational marginalization is another type of occupational injustice. Occupational marginalization refers to the denial of the right to choose one's own occupations (Durocher et al., 2014). Examples of occupational marginalization could include instances of discrimination and inability to choose various occupations due to disability or physical health (Townsend & Wilcock, 2004). Occupational marginalization could lead to decreased mental health and feelings of powerlessness (Townsend & Wilcock, 2004). The final type of occupational injustice is occupational imbalance. Occupational imbalance refers to denial to the right to participate in a variety of occupations (Durocher et al., 2014). Examples of occupational imbalance could include unemployed persons and/or those overly involved or occupied with activities (Townsend & Wilcock, 2004). Occupational imbalance could lead to increased stress, decreased physical health and decreased mental health (Townsend & Wilcock, 2004). Nilsson and Townsend (2014) recommend that all health professionals view their clients/residents through the lens of occupational justice in order to continually promote a good quality of life.

Occupational justice and injustice are important concepts to consider for the target population for this proposed educational plan. This vulnerable population is at risk for occupational injustice and its adverse effects and it is imperative to educate activities staff in order to promote prevention of these effects for this population.

### **Conclusion**

The purpose of this study is to promote an environment of occupational engagement for adults under age 65 living in skilled facilities through the use of an educational program for skilled nursing facility activities staff. This study examines the effectiveness of this educational program in terms of staff knowledge and perceived competence regarding occupational engagement promotion. Promotion of occupational engagement, including leisure tasks, work tasks and social participation, is crucial for this vulnerable population in order to obtain the needed health benefits associated with occupational engagement and decrease the risk of the damaging effects related to occupational injustice.

## **Section III: Methods**

### **Project Design**

The project design for this research study is a pre-experimental one group pretest and posttest design. This type of design is defined as having one group who undergoes a pretest, an intervention/treatment, and then a posttest (Creswell & Creswell, 2018). This design best assesses the effectiveness of an educational program for skilled nursing facility activities staff that care for adults under age 65 living in skilled nursing facilities. This design assesses both knowledge gained and self-perceived competence changes following implementation of educational programming related to promotion of occupational engagement for the target population. This design is important to this study in order to fully assess the effectiveness of the educational program for facility activities staff within the designated time frame for the study for both change in their knowledge of the topic and their perceived competence related to the promotion of occupational engagement with the target population.

### **Research Questions and Hypotheses**

Null Hypothesis 1: An occupation-based educational program focused on promoting leisure, social participation, and work role participation will have no effect on the knowledge of skilled nursing activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

Alternate Hypothesis 1: An occupation-based educational program focused on promoting leisure, social participation and work role participation will improve the knowledge of skilled nursing activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.



Null Hypothesis 2: An occupation-based educational program focused on promoting leisure, social participation and work role participation will have no effect on the perceived competence of skilled nursing facility activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

Alternative Hypothesis 2: An occupation-based educational program focused on promoting leisure, social participation and work role participation will positively influence the perceived competence of skilled nursing facility activities staff related to occupational engagement of adults under age 65 living in skilled nursing facilities.

### **Setting**

The setting for this proposed research study is skilled nursing facilities that service the target population of adults under age 65 living in these settings. The skilled nursing facilities are located in Ohio in an urban setting. Two skilled nursing facilities have been selected and have the capacity to house 100 residents each. This setting was chosen because the activities staff at these facilities would most benefit from an educational program for this target age group. This setting will also likely yield increased participation by skilled nursing facility activities staff secondary to convenience of the locations as it will be their primary work site.

### **Participants**

Participants include skilled nursing facility activities staff that work in the designated sites that provide services to adults under age 65 living in the skilled nursing facility. Activities staff include activity directors and activity professionals. According to the National Certification Council for Activity Professionals (2020), educational levels may vary for activity directors from high school diploma to bachelor's degree. Activity directors are required to have experience

hours in an activities department. The required number of hours varies depending on educational level from 2,000 to 12,000 in a span of five years (National Certification Council for Activity Professionals, 2020). Activity directors are also required to have 40 hours of continuing education over a five-year period and pass a certification exam. Activity professionals typically have a high school level of education, have 2,000-4,000 experience hours in an activities department, have 20 hours of continuing education over a five-year period and do not have to pass a certification exam (National Certification Council for Activity Professionals, 2020).

**Inclusion Criteria.** Participants are able to speak English, able to read and write, currently work with adults under age 65 in their work setting, have worked at the research study site for at least 3 months, and able to give their own informed consent.

**Exclusion Criteria.** Participants are excluded from this study if they do not speak English, are not able to read and write, do not currently work with adults under age 65 in their work setting, have not worked at the research site for at least 3 months and cannot give informed consent.

**Recruitment.** Participants have been recruited at the designated skilled nursing facility sites through use of a recruitment flyer (See appendix A) and virtual meeting/email with each activities department to educate staff on purpose of research study as needed.

### **Data Collection**

A pre-experimental one group pretest and posttest design was used, and it involved collecting quantitative data in relation to knowledge gained and perceptual competence changes of skilled nursing facility activities staff about the promotion of occupational engagement for the target population. Pre and posttest data was collected from skilled nursing facility activities staff

at the designated sites to assess whether an occupation-based training and education program related to increased knowledge and perceived competence of the participants in regard to occupational participation for the target population.

The outcome measure is a pre and posttest of knowledge and perceived competence changes. The pre and posttests have been developed along with the development of the educational program. The pre and posttests are designed to measure the change in knowledge and perceived competence by activities staff regarding occupational engagement for adults under age 65. The pre and posttests include some Likert scale type questions for further in-depth examination of staff members' perceived competence and multiple-choice questions for knowledge gained related to the designated topic.

### **Data Analysis**

Descriptive statistics and t tests were utilized to analyze collected data. Descriptive statistics included number of participants, professional designation of each participant as well as frequency and percentage of responses on instrument items. The t tests measured the change in participants' knowledge and perceived competence changes on the topic area and measure whether significant change in knowledge and perceived competence has occurred as a result of the educational program.

### **Instruments for Data Collection:**

The data collection instruments included general knowledge questions in a multiple-choice format and Likert type questions based on the Perceived Competence Scale to measure both knowledge and perceived competence changes by staff following training. The knowledge

test consists of 10 multiple choice questions regarding the educational content. The perceptions scale includes 4 Likert style questions regarding participants' perceptions of their competence to promote occupational engagement for nursing home residents under age 65.

### **Study Rigor**

There are some general validity issues to consider based upon the type of instrument and research design. One potential threat to the internal validity of this study is study attrition which means that study participants may drop out during the study (Creswell & Creswell, 2018). All activities staff at both facilities were invited to participate to increase sample size and reduce the impact of attrition. Another potential threat to internal validity for this study is related to testing. The participants may remember or become familiar with the questions on the pretest when completing the posttest which could skew the results (Creswell & Creswell, 2018). The two educational sessions were completed over a two-week period to decrease this risk. However, the same scale was used at both data collection points to allow for comparison of knowledge and perceptions before and after the educational intervention. This study could also have threats related to external validity including interaction between treatment and selection and interaction between treatment and setting (Creswell & Creswell, 2018). One way to combat this threat is the completion of the study in two different settings to improve generalization of results (Creswell & Creswell, 2018). The outcome measures were developed based upon established research and expert review by the research committee for this study which improves both face and content validity.

## **Ethical Considerations**

There are several ethical issues to consider throughout the course of this research with planned safeguards to mitigate ethical risks. In order to address any ethical concerns at the start of this study, institutional review board approval was obtained and the AOTA code of ethics was consulted as it relates to the specifics of this study. Permission to implement this study from the designated facilities was obtained prior to the start of the study. An informed consent form was developed for all participants that is clear and understandable to the target participant group. Informed consent from all participants will be obtained allowing participants ample time to review the informed consent form and answer any questions. Participants were made aware that they did not have to sign the consent and/or participate in the study. One ethical concern that may be more difficult to control for this particular study is making sure there is a representative sample of races, ages, cultures and backgrounds. This research will be conducted at two sites and it may be difficult to address this ethical concern if the various cultures, races and backgrounds are not available.

During the study, trust was built with each site and care was taken to not disrupt the site's normal activities during the course of the study as much as possible. The pre and posttests had standardization in questions between tests. All data was reported even if there is conflicting information. The privacy and anonymity of the participants was protected by assigning them participant numbers or another type of alias throughout the research process. Findings were reported fully and honestly. The findings were shared with the participants and the site if requested. All data was stored electronically in a safe place with password encryption in order to

protect the data and participants' privacy. Use of these safeguards related to ethical concerns helped to mitigate ethical risks as much as possible throughout the course of this study.

### **Project Timeline**

Table 2: Project Timeline

<b>Project Steps</b>	<b>Start Date</b>	<b>Completion Date</b>
Complete and submit IRB for approval	June 2020	July 2020
Recruit participants from multiple sites	August 2020	August 2020
Complete educational/training program with participants and data collection	September 2020	September 2020
Data Analysis	September 2020	October 2020
Complete and submit final capstone report	October 2020	Late November or Early December 2020
Explore steps and options for publication	December 2020	December 2020

## **Section IV: Results and Discussion**

### **Introduction**

Due to medical advances, closure of long term mental health facilities and lack of housing related to addiction services, the number of adults under age sixty five living in skilled nursing facilities permanently has increased and this population is expected to continue to rise over the next thirty years (Family Caregiver Alliance, 2015; Sedensky, 2011). There has been little to no documented research for this population. However, there has been a plethora of research related to lack of occupational engagement in older adults in skilled nursing facilities (French, 2002; Magasi & Hammel, 2009; Morgan-Brown et al., 2019; Uemera et al., 2018). There are currently no documented training programs for skilled nursing facility staff for promotion of occupational engagement in adults under age 65 living in skilled nursing communities. The purpose of this capstone project was to examine the effectiveness of an occupation-based training program for skilled nursing activities staff in the areas of staff knowledge and perceived competence for promoting occupational engagement in adults under age sixty-five. For this capstone project, two learning modules were created and recorded in a webinar format and distributed to two skilled nursing facilities in Cincinnati, Ohio. Pre and posttest data was collected using a knowledge outcome measure that consists of ten multiple choice questions and the Perceived Competence Scale that consists of four Likert type questions.

### **Results**

Eight activities professionals gave informed consent and participated in this study. There were seven female participants and one male participant. There was two activities directors and six activities assistants in this study. The eight participants represent 100% participation of

activities staff at both sites. All of the participants completed all questions on both the pre and posttests.

The knowledge outcome measure consisted of ten multiple choice questions that assessed the participants' knowledge related to promotion of occupational engagement. Appendix B showcases the full knowledge outcome measure.

Results from the pre and posttest data for the knowledge component of this study indicate that there was a statistically significant improvement in knowledge for the participants based on results from the paired t test and pre and posttests averages. De Winter (2013) found that the use of paired t tests, even in very small sample sizes, is a reliable method to analyze change. Table 2 highlights the specific statistical analysis of the data of the knowledge component including averages, mean, median, mode and one tail paired t test. Figures 1 and 2 visually highlight the improvement in the knowledge component by participants.

Table 3: Knowledge statistical analysis

Knowledge Pre-Test Average	6.5
Knowledge Post-Test Average	8.25
Mean	7.375
Median	7.5
Mode	7
Standard Deviation Pretest	1.1952
Standard Deviation Posttest	0.8864
T stat	T= -3.0929
Paired 1 tail T test	P=0.0050



Figure 1: Knowledge change by participant bar graph

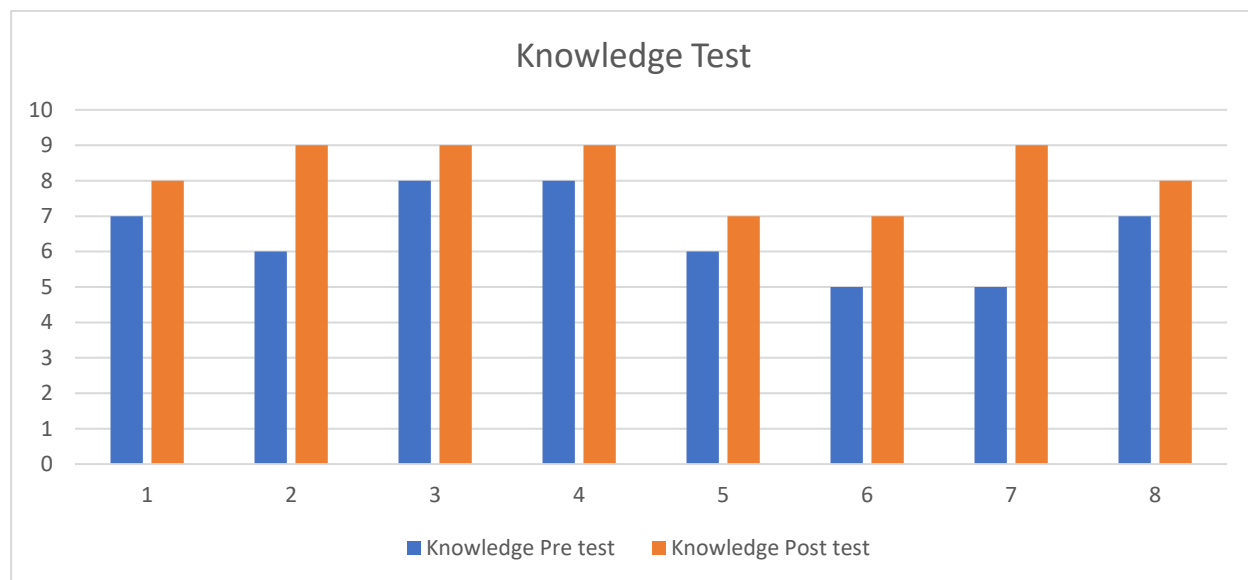
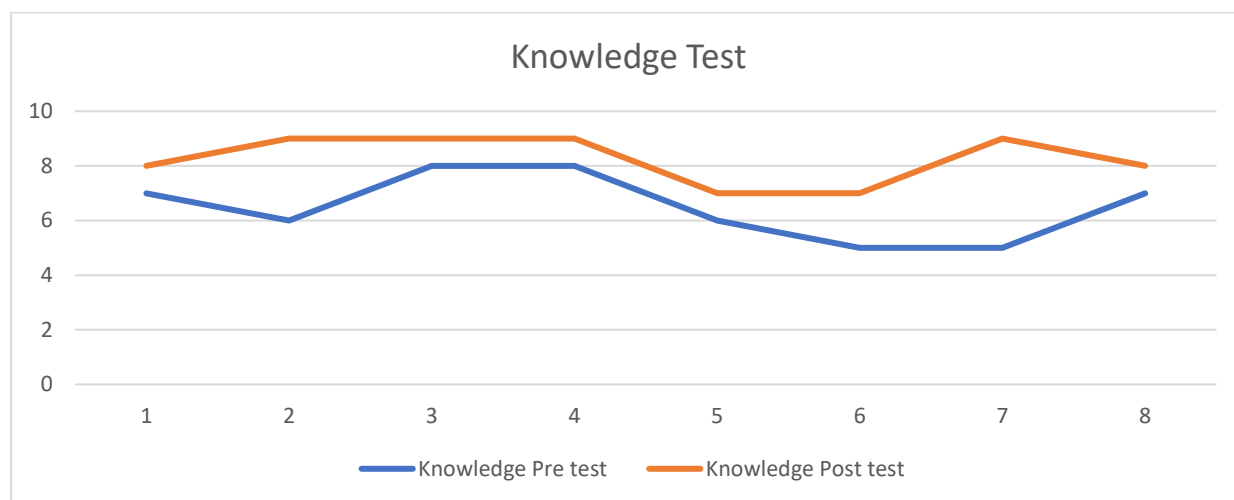


Figure 2: Knowledge change by participant line graph



The Perceived Competence Scale consisted of 4 questions with Likert style responses. This scale is based off the Self Determination Theory and has documented reliability and validity. Appendix C showcases the Perceived Competence Scale used in this study.

Results from the pre and posttests of the Perceived Competence Scale indicate a statistically significant improvement in participants’ perceived competence based on the paired one tail t test and pre and posttest averages. Table 3 highlights the statistical analysis that was completed on the perceived competence data. Figure 4 and 5 demonstrates a visual representation of the participants’ perceived competence changes.

Table 4: Perceived competence statistical analysis

Perceived competence pre-test average	16.25
Perceived competence post-test average	23.75
Mean	20
Median	21
Mode	21
Standard Deviation Pretest	5.3918
Standard Deviation Posttest	4.2342
T stat	T=-2.9862
Paired 1 tail T test	P=0.0040

Figure 3: Perceived competence changes by participant bar graph

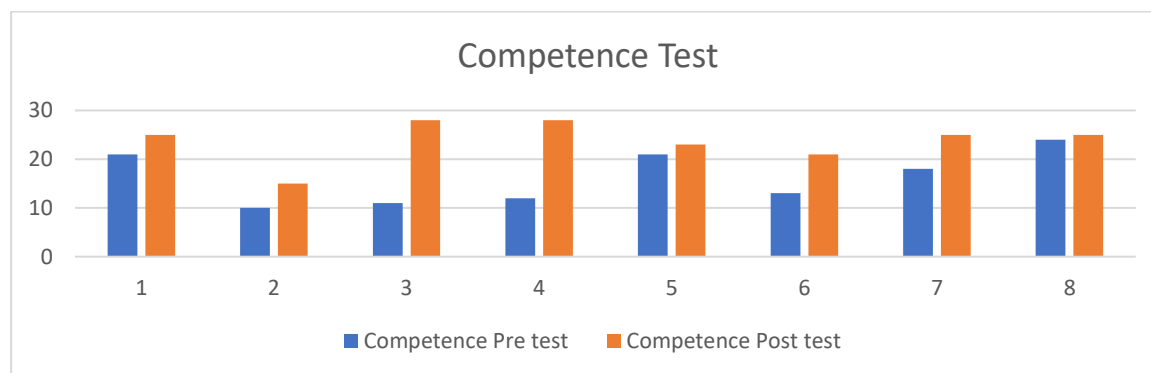
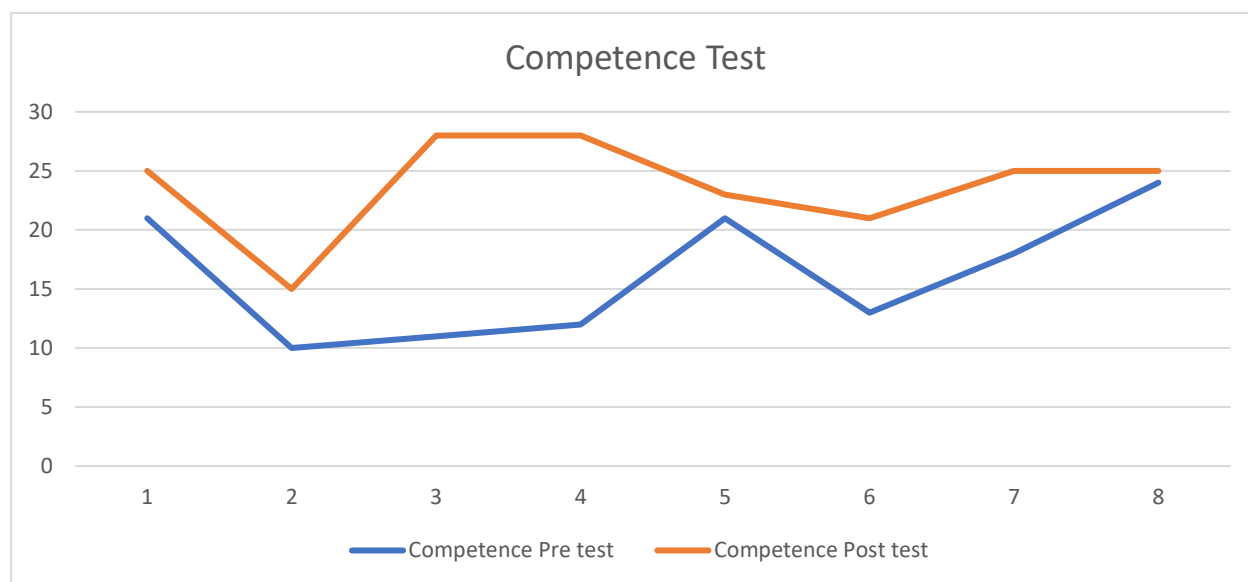


Figure 4: Perceived competence changes by participant line graph



## Discussion

Adults under age 65 living in skilled nursing facilities is a growing population and this population is expected to continue to increase over the next 30 years (Family Caregiver Alliance, 2015; Sedensky, 2011). There has been little to no research about this population. There has been a documented lack of occupational engagement in skilled nursing facilities and skilled nursing facilities have been shown to create a culture of dependency (French, 2002). This lack of occupational engagement can lead to occupational injustice and decreased quality of life. This capstone study sought to develop and implement an occupation-based training program for skilled nursing facility activities staff and determine the effectiveness of this program related to knowledge and perceived competence.

### ***Knowledge***

Null hypothesis 1 of this study stated that the occupation-based training program for skilled nursing facility activities staff would have no effect on their knowledge related to the promotion of occupational engagement in adults under age 65 that are living in skilled nursing facilities. The alternative hypothesis stated that the occupation-based training program for skilled nursing facility activities staff would increase their knowledge related to the promotion of occupational engagement in adults under age 65 that are living in skilled nursing facilities. Based on the statistical analysis of pre and posttests of participant data, participant's knowledge of promotion of occupational engagement improved and null hypothesis 1 was rejected and alternative hypothesis 1 accepted. These findings are analogous with other published research results that found that training improved knowledge of skilled nursing facility staff members in the areas of treatment of heart failure, dementia care, and mental health (Boxer et al., 2012; Davison et al., 2006; Chartok et al., 1998). Increased knowledge of promotion of occupational engagement could lead to improved occupational engagement for adults under age 65 in skilled nursing facilities. This improved occupational engagement in the areas of work, leisure and social participation has been shown to promote many health benefits for this population including decreased risk of chronic health conditions, improved physical fitness, improved social skills, decreased risk of anxiety and depression and decreased risk of cognitive decline (Singh & Kiran, 2014; Patterson, 1996; Tinsley & Eldredge, 1995). This promotion of occupational engagement could lead to improved overall outcomes for skilled nursing facility residents that are under age 65.

### ***Competence***

Null hypothesis 2 stated that an occupation-based training program for skilled nursing activities staff would have no effect their perceived competence for promotion of occupational engagement in adults under age 65. Alternative hypothesis 2 stated that an occupation-based training program for skilled nursing activities staff would improve their perceived competence for promotion of occupational engagement in adults under age 65. Based on statistical analysis of pre and posttest data, the increase in perceived competence demonstrates that null hypothesis 2 is rejected and the alternative hypothesis 2 is accepted. These findings are similar to current published research that has shown that training for skilled nursing facility staff improved their perceived competence and confidence in the areas of managing patients with heart failure, geriatric care, and care complexity (Boxer et al., 2012; Arnetz & Hasson, 2007; Backhaus et al., 2015). Competence has been shown to improve motivation and meaningfulness for completing a task (Martela and Reikki, 2018; Wang et al., 2019). Participants could be more motivated to promote occupational engagement since their competence improved as a result of this training program. This promotion of occupational engagement has been shown to improve health outcomes and quality of life for all individuals.

### ***Occupational Justice***

Occupational justice is a key framework for nursing home staff to utilize in order to support care and improve the lives of those under age 65 living in skilled nursing facilities. In fact, Hocking (2017) found that inclusion of occupational justice should be a moral initiative for all policy makers in all areas of practice. Du Toit et al. (2019) discussed the importance of occupational therapists incorporating occupational justice in initiatives related to communities

such as skilled nursing facilities. Education and training of skilled nursing facility staff by occupational therapists in the area of occupational justice is an important first step in meeting the moral initiative of improving the lives of those living in skilled nursing facilities and promotion of occupational justice.

With improved knowledge and competence, activities professionals in skilled nursing facilities will be more likely to promote occupational justice and improve the quality of life and health of residents under age 65 living in skilled nursing facilities.

### **Study Strengths**

This study utilized two separate skilled nursing facility sites in order to decrease risk of participant drop out and increase participant pool and participant diversity. Study achieved 100% participation rate by skilled nursing activities professionals at both designated sites. Another strength of this study is the use of an established outcome measure, the Perceived Competence Scale, that has documented face validity and reliability (Williams et al., 1998). This study could also be easily replicated utilizing the pre-recorded webinars at different skilled nursing facilities with an increased sample size. Harrington and Walker (2002) found that computer-based training can be an effective alternative to in person training for skilled nursing facility staff. Privacy was safeguarded throughout the course of this study as the study was delivered remotely and all pretests and posttests were labeled with participant numbers only.

### **Study Limitations**

Although there was 100% participation for each of the sites, there was a small sample size in this study which could decrease reliability and increase risk for type II error. Due to the COVID-19 pandemic, this study was also delivered remotely per each facility's restrictions.

Remote delivery can be considered a limitation for several reasons. Remote delivery could have decreased standardization of the processes throughout the study including environment and testing procedures. Although step by step instructions were given to each participant at the start of the webinar, there was no oversight to determine if all procedures were followed. Participants were also not given the opportunity to ask questions of this investigator in person to allow for more spontaneous group discussion and learning. Participants were given this investigator's contact information to ask questions from the webinar as needed on an individual basis.

### **Implications for Practice**

Occupational therapists are uniquely qualified to promote occupational engagement in all that they serve including patients, families, staff members, and many more. This study promotes the use of an occupational therapist's skills in a consultation/educator role for skilled nursing facility activities staff for improved patient satisfaction and outcomes. These types of training programs could provide occupational therapists with a new niche area of practice as a consultant for improvement in occupational engagement in skilled nursing facility settings. Healthcare outcomes could be improved for the target population, as a result of this study, by decreasing occupational injustice and associated detrimental effects including decreased physical, psychosocial and emotional health. This study could also have a significant impact on healthcare delivery and policy by the implementation of changes in healthcare practices by activities staff and their care of this specified group of residents. These overall positive changes could improve the health outcomes and quality of life for many individuals.

**Future Research**

With the lack of documented research for young adults under age 65 in skilled nursing facilities, there is still more to learn about this population and their occupational engagement needs for improved quality of life. This study could be replicated with a larger sample size in order to increase reliability and validity of results. Further studies could be completed to assess the activities staffs' frequency of use of techniques from the recorded webinars with their residents and the residents' response to new techniques and strategies to improve occupational engagement. Future studies could also assess the effectiveness of education and training for other staff groups within a skilled nursing facility such as nursing, nursing assistants, social services and dining services. Studies that analyze other areas of education for skilled nursing facility staff related to occupational engagement could be beneficial including education on other areas such as basic activities of daily living, instrumental activities of daily living, rest or sleep and education. There are many areas of further study that could be completed for this population in order to improve their experiences and quality of life.

**Summary:**

This research study was designed to address the growing need for staff education related to promoting occupational engagement in adults under age 65 living in skilled nursing facilities. This study included quantitative methods to fully assess the participants' knowledge and perceived competence following implementation of an occupation-based educational program. This study incorporated components of occupational justice, cognitive constructivism, self-determination theory and the social ecological model to fully support the research design and implementation. This study was implemented in a webinar format and had 100% participation



rate at each designated site. Results indicated that there was a statistically significant increase in activities staffs' knowledge and perceived competence following the implementation of this program. These results could help improve the promotion of occupation engagement and the quality of life for many residents under age 65 living in skilled nursing facilities. This study could also have a significant impact on the practice of occupational therapy and the healthcare environment as a whole.

## References

- American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain & process 4<sup>th</sup> edition. *American Journal of Occupational Therapy*, 74(2), 1-87.  
<https://doi.org/10.5014/ajot.2020.74S2001>
- American Time Use Study (2018). Percent of employed people who worked by day of week.  
<https://www.bls.gov/charts/american-time-use/emp-by-ftpt-job-edu-p.htm>
- American Time Use Study (2018). Average hours per day spent in selected leisure and sports activities by age. <https://www.bls.gov/charts/american-time-use/activityleisure.htm>
- Anspach, D. (2019). Average retirement age in the United States.  
<https://www.thebalance.com/average-retirement-age-in-the-united-states-2388864>
- Arnetz, J.E., & Hasson, H. (2007). Evaluation of an “educational” toolbox for improving nursing staff competence and psychosocial work environment in elderly care: Results of a prospective, non-randomized controlled intervention. *International Journal of Nursing Studies*, 44(5), 723-735. <https://doi.org/10.1016/j.ijnurstu.2006.01.012>
- Backhaus, R., Verbeek, H., Van Rossum, E., Capezuti, E., & Hamers, J.P.H. (2015), Future distinguishing competencies of baccalaureate-educated registered nurses in nursing homes. *Geriatric Nursing*, 36(6), 438-444.  
<https://doi.org/10.1016/j.gerinurse.2015.06.012>
- Bender, K. A., & Theodossiou, I. (2015). A reappraisal of the unemployment-mortality relationship: transitory and permanent effects. *Journal of Public Health Policy*, 36(1), 81–94. doi: 10.1057/jphp.2014.40

- Boxer, R.S., Dolansky, M.A., Frantz, M.A., Prosser, R., Hitch, J.A., & Pina, I.L. (2012). *Journal of the American Medical Directors Association*, 13(1), 83.e1-83.e7.  
<https://doi.org/10.1016/j.jamda.2011.01.005>
- Buettner LL. (2009). Evidence to support an advanced role for recreational therapists: Staff trainer in long term care. *American Journal of Recreation Therapy*, 8(4), 29–34.  
Retrieved from <https://www.wmpllc.org/ojs/index.php/ajrt/article/view/2345>
- Causey-Upton, R. (2015). A Model for quality of life: Occupational justice and leisure continuity for nursing home residents. *Physical & Occupational Therapy in Geriatrics*, 33(3), 175–188. <https://doi.org/10.3109/02703181.2015.1024301>
- Chang, S.J. (2013). Lived experiences of nursing home residents in Korea. *Asian Nursing Research*, 7(2), 83-90. doi: 10.1016/j.anr.2013.04.003
- Chartok, P., Nevins, A., Rzetelny, H., & Gilberto, P. (1988). *The Gerontologist*, 28(4), 503-507.  
<https://doi.org/10.1093/geront/28.4.503>
- Chen, L.K. (2016). Benefits and dynamics of learning gained through volunteering: A qualitative exploration guided by seniors' self-defined successful aging. *Educational Gerontology*, 42(3), 220–230. doi: 10.1080/03601277.2015.1108150
- Chen, L.-K. (2016). Not just helping: What and how older men learn when they volunteer. *Educational Gerontology*, 42(3), 175–185. doi: 10.1080/03601277.2015.1085786
- Chen, S. & Chippendale, T. (2018). Leisure as an end, not just a means, in occupational therapy intervention. *American Journal of Occupational Therapy*, 72.  
<https://doi.org/10.5014/ajot.2018.028316>

Chen, Y. (2010). Perceived barriers to physical activity among older adults residing in long-term care institutions. *Journal of Clinical Nursing, 19*(3-4), 432-439.

<https://doi.org/10.1111/j.1365-2702.2009.02990.x>

Cohut, M. (2018). What are the health benefits of being social?.

<https://www.medicalnewstoday.com/articles/321019>

Coleman, D., & Seppo E.I.A. (1993) Leisure and health: The role of social support and selfdetermination, *Journal of Leisure Research, 25*:2, 111-128. doi:

[10.1080/00222216.1993.11969913](https://doi.org/10.1080/00222216.1993.11969913)

Creswell, J.W. & Creswell, J.D. (2018). Quantitative methods. In J.W. Creswell & J.D. Creswell (Eds.), *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed., pp. 155-181). Thousand Oaks: Sage.

Creswell, J.W. & Creswell, J.D. (2018). Research questions and hypotheses. In J.W. Creswell & J.D. Creswell (Eds.), *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed., pp. 133-147). Thousand Oaks: Sage.

Creswell, J.W. & Creswell, J.D. (2018). The purpose statement. In J.W. Creswell & J.D. Creswell (Eds.), *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed., pp. 117-132). Thousand Oaks: Sage.

Davison, T.E., McCabe, M.P., Visser, S., Hudgson, C., Buchanan, G., & George, K. (2006). Controlled trial of dementia training with a peer support group for aged care staff. *International Journal of Geriatric Psychiatry, 22*(9), 868-873.

<https://doi.org/10.1002/gps.1754>

De Winter, J.C.F. (2013). Using the student's t test with extremely small sample sizes. *Practical Assessment, Research and Evaluation, 18*(10), 1-12.

Di Bona, L. (2000). What are the benefits of leisure? An exploration using the Leisure Satisfaction Scale. *British Journal of Occupational Therapy, 63*(2), 50–58.

<https://doi.org/10.1177/030802260006300202>

Drydakīs, N. (2015). The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis. *Social Science & Medicine, 128*, 43–51. doi: 10.1016/j.socscimed.2014.12.025

Durocher, E., Gibson, B.E., & Rappolt, S. (2014). Occupational justice: A conceptual review. *Journal of Occupational Science, 21*:4, 418-430. doi: [10.1080/14427591.2013.775692](https://doi.org/10.1080/14427591.2013.775692)

Du Toit, S.H.J., Casteleijn, D., Adams, F., & Morgan-Brown, M. (2019). Occupational justice within residential aged care settings: Time to focus on a collective approach. *British Journal of Occupational Therapy, 82*(9), 578-581.

<https://doi.org/10.1177%2F0308022619840180>

Family Caregiver Alliance. (2015). Selected long term care statistics.

<https://www.caregiver.org/selected-long-term-care-statistics>

French G. (2002). Occupational disfranchisement in the dependency culture of a nursing home. *Journal of Occupational Science, 9*(1), 28–37.

<https://doi.org/10.1080/14427591.2002.9686491>

- Harrington, S.S., & Walker, B.L. (2002). A comparison of computer based training and instructor led training for long term care staff. *The Journal of Continuing Education in Nursing*, 33(1), 39-45. <https://doi.org/10.3928/0022-0124-20020101-08>
- Harvey, S. (2016). Can staff education reduce the occupational deprivation of people with dementia?...39th annual conference and exhibition of the College of Occupational Therapists, Brighton and Sussex, England. June 30-July 2, 2015. *British Journal of Occupational Therapy*, 79, 73. <https://repository.canterbury.ac.uk/item/89162/can-staff-education-reduce-theoccupational-deprivation-of-people-with-dementia>
- Health In Aging. (2020). Nursing homes. <https://www.healthinaging.org/agefriendly-healthcare-you/care-settings/nursing-homes>
- Healthy People 2030. (2020). Social determinants of health. <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>
- Hocking, C. (2017). Occupational justice as social justice: The moral claim for inclusion. *Journal of Occupational Science*, 24(1), 29-42. <https://doi.org/10.1080/14427591.2017.1294016>
- Howley, K. (2019). Nursing home facts and statistics. <https://health.usnews.com/health-news/best-nursing-homes/articles/nursing-home-factsand-statistics>
- Ice, G.H. (2002). Daily life in a nursing home: Has it changed in 25 years?. *Journal of Aging Studies*, 16(4), 345-359. [https://doi.org/10.1016/S0890-4065\(02\)00069-5](https://doi.org/10.1016/S0890-4065(02)00069-5)
- Johnson, D. (1988, January 28). Long term care: Many nursing homes are overlooking needs of younger patients. *The New York Times*.

<https://www.nytimes.com/1988/01/28/us/health-long-term-care-many-nursing-homesare-overlooking-needs-younger-patients.html>

Kawachi, I., Berkman, L.F. Social ties and mental health. *Journal of Urban Health* 78, 458–467.

<https://doi.org/10.1093/jurban/78.3.458>

Kolanowski, A., Buettner, L., Litaker, M., & Yu, F. (2006). Factors that relate to activity engagement in nursing home residents. *American Journal of Alzheimer's Disease & Other Dementias*®, 15–22. <https://doi.org/10.1177/153331750602100109>

Kriegbaum, M., Lund, R., Schmidt, L., Rod, N. H., & Christensen, U. (2019). The joint effect of unemployment and cynical hostility on all-cause mortality: Results from a prospective cohort study. *BMC Public Health*, 19(1), N.PAG. doi: 10.1186/s12889-019-6622-7

Mannell, R.C. (2007). Leisure, health and well-being, *World Leisure Journal*, 49:3, 114-128. doi: [10.1080/04419057.2007.9674499](https://doi.org/10.1080/04419057.2007.9674499)

Magasi, S., & Hammel, J. (2009). Women with disabilities' experiences in long-term care: A case for social justice. *American Journal of Occupational Therapy*, 63(1), 35–45. <https://doi.org/10.5014/ajot.63.1.35>

Martela, F., & Reikki, T.J. (2018). Autonomy, competence, relatedness and beneficence: A multicultural comparison of the four pathways to meaningful work. *Frontiers in Psychology*, 10, 1157. <https://doi.org/10.3389/fpsyg.2018.01157>

McDaniel, K. (2018). 6 Awesome leisure activities for the elderly.

<https://homecareassistancearkansas.com/leisure-activities-for-seniors/>

- McDonald, B. L., & Schreyer, R. (1991). Spiritual benefits of leisure participation and leisure settings. In B. L. Driver, P. J. Brown, & G. L. Peterson (Eds.), *Benefits of leisure* (p. 179–194). Venture Publishing: State College, PA.
- Meeks, S., Young, C.M., & Looney, S.W. (2007). Activity participation and affect among nursing home residents: Support for a behavioural model of depression. *Aging & Mental Health, 11*(6), 751-760, doi: [10.1080/13607860701546910](https://doi.org/10.1080/13607860701546910)
- Melin-Johansson, C., Eriksson, U., Segerback, I., & Bolstrom, S. (2013). Reflections of older people living in nursing homes. *Nursing Older People, 26*(1), 33-39. doi: 10.7748/nop2014.02.26.1.33.e524
- Modini, M., Joyce, S., Mykletun, A., Christensen, H., Bryant, R. A., Mitchell, P. B., & Harvey, S. B. (2016). The mental health benefits of employment: Results of a systematic metareview. *Australasian Psychiatry, 24*(4), 331–336. <https://doi.org/10.1177/1039856215618523>
- Morgan, B. M., Brangan, J., McMahon, R., & Murphy, B. (2019). Engagement and social interaction in dementia care settings. A call for occupational and social justice. *Health & Social Care in the Community, 27*(2), 400–408. <https://doi.org/10.1111/hsc.12658>
- National Certification Council for Activity Professionals. (2020). Professional certification levels and specializations. <https://www.nccap.org/activity-professionalcertification>
- National Institute on Aging. (2020). Research suggests a positive correlation between social interaction and health. <https://www.nia.nih.gov/about/living-long-well-21st-century-strategic-directions-research-aging/research-suggests-positive>



- Niemiec, C.P., & Ryan, R.M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, 7(2), 133-144. doi: [10.1177/1477878509104318](https://doi.org/10.1177/1477878509104318)
- Nilsson I., & Townsend, E. (2014). Occupational justice—Bridging theory and practice. *Scandinavian Journal of Occupational Therapy*, 21:sup1, 64-70. doi: [10.3109/11038128.2014.952906](https://doi.org/10.3109/11038128.2014.952906)
- Parkinson, L., Warburton, J., Sibbritt, D., & Byles, J. (2010). Volunteering and older women: psychosocial and health predictors of participation. *Aging & Mental Health*, 14(8), 917–927. doi: 10.1080/13607861003801045
- Patterson, I. (1996). Participation in leisure activities by older adults after a stressful life event: The loss of a spouse. *The International Journal of Aging and Human Development*, 42(2), 123–142. <https://doi.org/10.2190/TG1M-75CB-PL27-R6G3>
- Pearlman-Avni S., Ron, N., & Ezekiel, S. (2018). Ageing and theory of mind abilities: The benefits of social interaction, *Educational Gerontology*, 44(5-6), 368-377. doi: [10.1080/03601277.2018.1480130](https://doi.org/10.1080/03601277.2018.1480130)
- Poulin, M. J. (2014). Volunteering predicts health among those who value others: Two national studies. *Health Psychology*, 33(2), 120–129. doi: 10.1037/a0031620
- Robertson, J., Beyer, S., Emerson, E., Baines, S., & Hatton, C. (2019). The association between employment and the health of people with intellectual disabilities: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 32(6), 1335–1348. doi: 10.1111/jar.12632
- Roggenbuck, J.W., Loomis, R.J., & Dagostino, J. (1990). The learning benefits of leisure,

- Journal of Leisure Research*, 22:2, 112-124. doi: [10.1080/00222216.1990.11969819](https://doi.org/10.1080/00222216.1990.11969819)
- Rovner, B.W., German, P.S., Burton, L.C., & Clark, R.D. (1994). A longitudinal study of participation in nursing home activity programs. *The American Journal of Geriatric Psychiatry*, 2(2), 169-174. <https://doi.org/10.1097/00019442-199405000-00011>
- Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. doi: 10.1037/110003-066X.55.1.68
- Sedensky, M. (2011, January 7). More young people winding up in nursing homes. <https://www.cbsnews.com/news/more-young-people-winding-up-in-nursinghomes/>
- Singh, B. & Kiran, U.V. (2014). Recreational activities for senior citizens. *International Journal of Humanities and Social Science*, 19, 2279-837. doi:10.9790/0837-19472430.
- Statista. (2020). Most popular leisure activities among adults in the United States as of September 2013. <https://www.statista.com/statistics/382623/mostpopular-leisure-activities-among-adults-us/>
- Stokols, D. (1996). Translating social ecological theory into guidelines for community health promotion. *American Journal of Health Promotion*, 10(4), 282–298. <https://doi.org/10.4278/0890-1171-10.4.282>
- Szanton, S. L., Walker, R. K., Roberts, L., Thorpe Jr., R. J., Wolff, J., Agree, E., Roth, D. L., Gitlin, L. N., & Seplaki, C. (2015). Older adults' favorite activities are resoundingly active: Findings from the NHATS study. *Geriatric Nursing*, 36(2), 131–135. <https://doi.org/10.1016/j.gerinurse.2014.12.008>

- Tinsley, H. E. A., & Eldredge, B. D. (1995). Psychological benefits of leisure participation: A taxonomy of leisure activities based on their need-gratifying properties. *Journal of Counseling Psychology, 42*(2), 123–132. <https://doi.org/10.1037/0022-0167.42.2.123>
- Torre, D.M., Daley, B.J., Sebastian, J.L., & Elnicki, D.M. (2006). Overview of current learning theories for medical educators. *American Journal of Medicine, 119* (10), 903-907. <http://www.amjmed.com/article/S0002-9343%2806%2900837-0/pdf>
- Townsend, E. & Wilcock, A.A. (2004). Occupational justice and client-centred practice: A dialogue in progress. *Canadian Journal of Occupational Therapy, 71*(2), 75-87. <https://journals.sagepub.com/doi/pdf/10.1177/000841740407100203>
- Troyer, A.K. (2016). The health benefits of socializing. <https://www.psychologytoday.com/us/blog/living-mild-cognitiveimpairment/201606/the-health-benefits-socializing>
- UC Berkeley. (2016). Cognitive constructivism. In UC Berkeley’s Teaching guide for graduate student instructors. <https://gsi.berkeley.edu/gsi-guide-contents/learningtheory-research/cognitive-constructivism/>
- Uemura, J.-I., Hoshino, A., Igarashi, G., & Nishio, S. (2018). Changes in activity: Experience of new admissions to a long-term care facility. *Physical & Occupational Therapy in Geriatrics, 36*(2/3), 221–233. <https://doi.org/10.1080/02703181.2018.1476431>
- Voss, M. W., Wadsworth, L. L., Birmingham, W., Merryman, M. B., Crabtree, L., Subasic, K., & Hung, M. (2020). Health effects of late-career unemployment. *Journal of Aging & Health, 32*(1/2), 106–116. doi: 10.1177/0898264318806792

Waddell, G. & Burton, A.K. (2006). Is work good for your health and well-being?.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/214326/hwwb-is-work-good-for-you.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214326/hwwb-is-work-good-for-you.pdf)

Wanchai, A., & Phrompayak, D. (2019). Social participation types and benefits on health outcomes for elder people: a systematic review. *Ageing International*, 44(3), 223–233. doi: 10.1007/s12126-018-9338-6

Wang, C.K.J., Liu, W.C., Kee, Y.H., & Chian, L.K. (2019). Competence, autonomy and relatedness in the classroom: Understanding students' motivational processes using the Self Determination Theory. *Heliyon*, 5(7). <https://doi.org/10.1016/j.heliyon.2019.e01983>

Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology*, 70, 767-779.

Wood, N., Charlwood, G., Zecchin, C., Hansen, V., Douglas, M., & Pit, S. W. (2019). Qualitative exploration of the impact of employment and volunteering upon the health and wellbeing of African refugees settled in regional Australia: a refugee perspective. *BMC Public Health*, 19(1), 1–15. doi: [10.1186/s12889-018-6328-2](https://doi.org/10.1186/s12889-018-6328-2)

World Health Organization (WHO). (2020). Proposed working definition of an older person in Africa for the MDS project. <https://who.int/healthinfo/survey/ageingdefnolder/en/>

Yeung, J. W. K., Zhuoni Zhang, Tae Yeun Kim, Zhang, Z., & Kim, T. Y. (2017). Volunteering and health benefits in general adults: cumulative effects and forms. *BMC Public Health*,

17, 1–8. doi: [10.1186/s12889-017-4561-8](https://doi.org/10.1186/s12889-017-4561-8)

Zeng, C., Guo, Y., Hong, Y. A., Gentz, S., Zhang, J., Zhang, H., Qiao, J., Xu, Z., & Cai, W. (2019). Differential effects of unemployment on depression in people living with HIV/AIDS: a quantile regression approach. *AIDS Care*, *31*(11), 1412–1419. doi: 10.1080/09540121.2019.1587366

## Appendix A

### Occupational Engagement in Adults under age 65 living in a Skilled Nursing Facility Study



**Activities staff volunteers** needed for a research study examining the effectiveness of an educational program to promote occupational engagement of residents under age 65 in your facilities.

-Are you interested in learning about new ways to engage your younger residents?

- Are you interested in helping your younger residents live their best life?

**If you answered yes to both of these questions, you may be eligible to participate in this study.**

This study is being conducted through Eastern Kentucky University.

Please contact **Rebecca King at 513-503-6699** if interested in participating.

**Appendix B**

## Knowledge Outcome Measure

1. What is the ratio of adults under age 65 living in skilled nursing facilities?
  - A. One in ten residents are under age 65
  - B. One in twenty residents are under age 65
  - C. One in five residents are under age 65
  - D. One in seven residents are under age 65
2. What are some proven health benefits of leisure activities?
  - A. Increased creativity, improved heart health, improved alertness, and improved fitness
  - B. Increased fun, less boredom and less free time
  - C. There are no health benefits of leisure
  - D. Both A and B
3. What percentage of adults under age 65 are in paid work roles?
  - A. 79%
  - B. 65%
  - C. 89%
  - D. 84%
4. What is occupational alienation?
  - A. Lack of paid employment
  - B. Lack of a variety of activities or occupations
  - C. Lack of meaningful activities or occupations
  - D. All of the above
5. What are the most important components of an individualized activity plan?

- A. Resident's preferences, resident's capabilities, resident's needs, and resident inclusion in plan development
  - B. Resident's diagnoses, resident's gender, resident's wants, and pre-planned facility activities calendar
  - C. Bingo, memory games, an outing, and music activities
  - D. All of the above
6. What is activity analysis?
- A. Determining which activities a resident prefers
  - B. Determining how many activities should be offered each month
  - C. Determining the skills and abilities needed to participate in an activity
  - D. None of the above
7. What are examples of cognitive skills?
- A. Display empathy, show respect for others, communicate your own needs
  - B. Strength, balance, fine motor coordination
  - C. Vision, hearing, vestibular
  - D. Memory, sequencing, ability to start and continue a task
  - E. Personality factors, self-esteem, feelings of accomplishment
8. What are three ways that you can adapt activities for physical abilities?
- A. Use of built up handles, completing tasks in sitting, adapting tasks for one handed use
  - B. Use of a magnifier, use of a pocket talker, use of color contrast
  - C. Peer groups, conversation starters, use of small groups
  - D. None of the above
9. What are three ways that you can adapt activities for cognitive abilities?
- A. Use of step by step directions, use of visual aids, use of small groups



- B. Peer groups, conversation starters, use of small groups
  - C. Use of a magnifier, use of a pocket talker, use of color contrast
  - D. All of the above
10. What is a budget friendly way to provide occupation-based activity options?
- A. Use of volunteer opportunities as work roles for residents
  - B. Book club activity using library resources
  - C. Pen pal program
  - D. All of the above

## Appendix C

### Perceived Competence Scale

Scale: 1 2 3 4 5 6 7 Not at all  
somewhat very true true true

1. I feel confident in my ability to promote occupational engagement in adults under age 65 living in this skilled nursing facility. \_\_\_\_\_
2. I am capable of promoting occupational engagement in adults under age 65 living in this skilled nursing facility. \_\_\_\_\_
3. I am able to promote occupational engagement in adults under age 65 living in this skilled nursing facility. \_\_\_\_\_
4. I feel able to meet the challenge of promoting occupational engagement in adults under age 65 living in this skilled nursing facility. \_\_\_\_\_