**2017 Scholarly Projects**

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<td>Promoting Interdisciplinary Collaboration Across School Contexts: A Toolkit for Occupational Therapists</td>
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The purpose of this project was to create a toolkit for occupational therapist who work within the elementary school settings to promote collaboration with teachers and other school personnel. In recent years there has been an increase in children who qualify for occupational therapy services within the school, which creates a need for collaboration with occupational therapists and teachers. Kennedy and Stewart (2011) found that while occupational therapist and teachers desire a collaborative relationship there is little evidence supporting a way to achieve effective collaboration between the professions.

An extensive literature was conducted in order to acquire information to create evidence-based strategies for occupational therapist to use in collaboration with teachers. The authors utilized research articles, textbooks as well as resources available from the American Occupational Therapy Association and other reliable databases. The ecology of human performance model was the guiding model in the development of this toolkit, creating opportunities of intervention into various contexts within the elementary school setting.

Our toolkit, *Promoting Interdisciplinary Collaboration Across Context: A Toolkit for Occupational Therapists*, was organized by context with suggestions for intervention strategies to occupational therapists to use in collaboration with teachers. The toolkit begins with operational definitions followed by strategies for collaboration, educational materials for occupational therapist and teachers, EHP model application, possible assessments to use in the school and finally case studies to provide an example of how to use the toolkit.

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McManus (2007) indicates that healthcare professionals, who are highly committed and involved in their profession, often experience stress and burnout. A multitude of stressors affect healthcare professionals, including time restraints, workload, multiple roles, and emotional investment in the career (McCann et al., 2013). Jennings (2009), makes the connection that the stress does not just begin when medical students enter the workforce, but during their academic preparation as well. Allied health profession students and professionals are also not exempt from experiencing considerable stress and burnout (Harris, Cumming, & Campbell, 2005; Othman, Farooqui, Yusoff, & Adawaiyah, 2013). Harris and colleagues (2005) found that "the single significant predictor of psychological distress and life satisfaction was perceived stress" (p. 198). At a college level, students do not proactively seek out mental health resources before a crisis point has been reached largely due to the stigma associated with having a mental illness (Wynaden et al., 2014).

The purpose of this scholarly project was to propose a Mental Health Wellness Program for the School of Medicine and Health Sciences (SMHS) to implement to reduce stress and burnout associated with intensive school programming for all students. The model used to frame this proposed program is the Person-Environment-Occupation Model of Occupational Therapy (PEO). The PEO model examines the transaction between three concepts: Person, Environment and Occupation, with the goal of an optimal fit for competent occupational performance.

A decline in mental health can impact daily functioning. Mental health challenges in students are often due to increased stress levels, increased burnout, and a lack of balance in their personal and
professional lives (Harris et al., 2005; Jennings, 2009; Rizer, Fagan, Kilmon, & Rath, 2015;). Occupational
demands of being a student may exceed the person’s ability to cope and participate competently in not only
school tasks, but in fulfilling other meaningful roles as well. The student may not feel adequate supports
from the environment to continue engaging in academia or other occupations needing to be performed. The
goal of the program is to optimize the fit between the person, the environment, and the occupations of the
student in the SMHS. It is proposed that the SMHS use the learning communities to develop a school wide
environment that more activity promotes the established Learning Communities primary goals resulting in a
more balanced life to meet occupational demands and establish healthy habits and routines they carry into
their professional life and more effectively meet the needs of their future clients and colleagues.

Katherine Erickson and Kari Kjergaard

OT Resource Guide for Refugee Populations in the U.S.

Introduction: As of October 2016, over 65.3 million people have been displaced from their home due to civil wars
and civil unrest; 21.3 million of this population are refugees and this number continues to grow (UNHCR, 2016). Due
to the nature in which people become refugees and experience trauma, both physically and mentally, there is a rising
need for health professionals to be culturally competent and well equipped to work with this population. The vast
majority of refugee populations face barriers some of which include being forced to adapt to a new home
environment, social isolation, language barriers, and ultimately decreased engagement in valued occupations, which
leads to occupational deprivation (Smith, Cornella, & Williams, 2014). As refugee populations are continuing to
grow in the United States, the direct services occupational therapy practitioners and occupational therapy students
provide for refugees continues to increase (Smith, Cornella, & Williams, 2014). Currently, there is no published
manual or guide for occupational therapy students or occupational therapy practitioners to aid in providing services
grounded toward meeting the needs of refugees.

Methodology: A literature review as conducted on topics related to the needs and problems of refugee populations
moving and living in the United States. The literature supported the need for the development of a resource to guide
for occupational therapy practitioners and occupational therapy students who work with refugee populations. The
literature provided a foundation for the development of an evidence based comprehensive manual for working with
refugee populations.

Results: Occupational therapists (OTs) are well suited to work with refugees because many issues they are facing
are occupation based. Individuals are limited in refugee camps as to the type of occupations they can engage in which
results in occupational injustice. Occupational injustice occurs “…when participation in occupations is barred,
confined, restricted, segregated, prohibited, underdeveloped, disrupted, alienated, marginalized, exploited, excluded,
or otherwise restricted,” (Kronenberg & Pollard, 2005, p. 66). The A Home Away From Home: An Occupational
Manual for Working with Refugee Populations will function as an evidence based resource guide for occupational
therapy students and occupational therapy practitioners to meet the needs of refugee populations in healthcare and
community based settings.

Conclusion: It was evident in literature that refugee populations experience difficulties and face barriers secondary to
displacement, life in refugee camps, and adjusting to resettlement. All of this leads to deprivation in activities of
everyday life (occupations). Occupational therapy professionals are uniquely skilled to meet the needs of refugees
experiencing occupational deprivation, but there is currently no published guide to help them in the process. The
occupational manual is designed to guide occupational therapy professionals to provide appropriate services for
refugee populations in community and healthcare settings.

Significance: With the increase in refugee populations resettling in communities across the United States, these
individuals need access to culturally competent healthcare and other resources within communities. The creation of
this manual will serve as one step in the direction toward understanding, addressing, and advocating for the needs of
refugees resettling in the United States.
### Dr. Julie Grabanski

**Warren Ross and Marcus Sickler**

An Assistive Technology Manual to Enhance Occupations During Stages of ALS

**Purpose:** The purpose of this project was to develop a manual for occupational therapists and caregivers that provides assistive technology suggestions to address the needs of an individual with ALS at each stage of the disease.

**Methods:** An extensive literature review was completed on ALS and assistive technology to examine the effects of ALS, course of progression of the disease, variations of the disease, and signs and symptoms. Multiple online databases were utilized including: CINAHL, PubMed, PsycINFO, Academic Search Premier, Google Scholar, and OT search. Further literature reviewed included current assistive technology individuals with ALS found useful related to communication, mobility, and leisure engagement.

**Results:** The ALS assistive technology manual was created based on the Ecology of Human Performance Model of Occupational Performance for OT practitioners. The product, Assistive Technology to Enhance Occupations during Stages of ALS, provides the OT and caregiver with information related to ALS and the progression of the disease throughout the areas of communication, mobility, home modification, and leisure engagement.

**Conclusion:** The manual was created for practicing occupational therapists, other members of the health care team, and caretakers of individuals with ALS. The manual is not inclusive of all assistive technology (AT) options throughout the areas of communication, mobility, home modifications, and leisure engagement, but provides a comprehensive list of common and researched AT to increase performance range within the individual.

### Courtney Funk & Jessika Lackie

**Expanding the role of occupational therapy in oncology: An introduction to the Oncology Occupational Performance Screening Tool and Occupational Therapy and Cancer Education Guide**

**Purpose:** Cancer survivorship is growing as time progresses. The National Cancer Institute (2016) found the rate of survivorship after a cancer diagnosis was almost 14.5 million in 2014 and projected it to increase further by 2024 to nearly 19 million. This rise in cancer survivors indicates increased needs for rehabilitation services to cope with the multi-dimensional side effects of cancer and cancer treatment. Occupational therapy will be a key member of the oncology care team to improve physical, psychosocial, cognitive, and quality of life outcomes of this population. There are few resources currently available for practitioners to assist with referrals and designing holistic interventions.

**Methodology:** An extensive review of literature was completed on physical, psychosocial, and cognitive needs of individuals who are receiving/have received cancer treatment, changes to quality of life as a result of cancer and cancer treatment, and the role of occupational therapy in addressing these needs.

**Product:** A multidisciplinary screening tool and occupational therapist education guide were created based on the Person-Environment-Occupation Model of Occupational Performance. The Oncology Occupational Performance Screening Tool (OOPST) addresses the limited utilization of occupational therapy services and was developed to increase the number of referrals made for individuals at various stages in their cancer treatment. The Occupational Therapy & Cancer Education Guide was created for occupational therapists working with individuals diagnosed with cancer to integrate the screening tool produced into developing a holistic treatment plan for referred individuals.

### Professor Cheri Graves

**Chad Oppegaard and Michelle Jones**

Resource Tool for Parents of Children with Burn Injuries

Children are the most vulnerable population and represent the highest rate of nonfatal burns resulting in prolonged hospitalization, disfigurement, and disability. These injuries can be a severely stressful experience for children and their families. As a result, it is important for the patient and family members to not focus only on immediate treatment, but recognize the importance of long-term care following discharge in order to effectively reintegrate the child back into the home and community.

A literature review was conducted to investigate the key components of burn care throughout the duration of recovery. Research identified that many parents feel helpless, incompetent, or unqualified to
provide the adequate care their child needs following discharge from a pediatric burn inpatient rehabilitation facility. While parents are provided with educational material and therapeutic interventions, there is currently a lack of information addressing if parents are compliant with their child’s treatment plan.

To address this need, the goal of this project is to develop an online resource tool that occupational therapists can utilize with caregivers of children who have sustained a burn injury. The goal is to empower parents by educating them on how to manage the needs of their child and to increase compliance prior to their child being discharged from an inpatient rehabilitation facility. This scholarly project will utilize the Model of Human Occupation (MOHO) and the adult learning theory to not only educate the parents, but increase their level of confidence so they are able to successfully meet the physical and psychosocial needs of their child at home and in the community.

Courtney Jacobson and Esada Mujec

**Sexuality and Spinal Cord Injury: A Manual for Occupational Therapists in the Inpatient Rehabilitation Setting**

The topic of sexuality has not been addressed in its entirety within the profession of occupational therapy and has been identified by patients as a need in order to receive comprehensive and holistic care (New, Seddon, Redpath, Currie, and Warren, 2016). More specifically, with 12,500 new cases of spinal cord injury (SCI) that occur each year, in addition to the significant impact on body functions that result from SCI, the topic of sexuality needs particular attention with this population (National Spinal Cord Injury Statistical Center, 2015). The purpose of this scholarly project was to create a manual supported by literature that can be used by occupational therapists working with patients with SCI in the inpatient rehabilitation setting to address sexuality. The authors conducted an in-depth literature review regarding the topic of sexuality in the healthcare setting as well as sexuality with the SCI population. The authors created a manual, guided by the Ecology of Human Performance (EHP) model and the ALLOW model. These models provide structure to the occupational therapy treatment process, from the evaluation to the outcomes. The manual is to be used as a reference, a resource, and a guide for occupational therapists to use when addressing sexuality with patients with SCI in the inpatient rehabilitation setting.

Dr. Debra Hanson

Jessica Dietz and Elynn Schriber

**Intensive Outpatient Program for Substance Abuse: Occupational Therapy Guideline to Recovery**

The purpose of this scholarly project was to develop an evidence-based 12-session group protocol for occupational therapists (OTs) to use in an intensive outpatient program (IOP) for substance abuse. The target population for this scholarly project was young adults aged 18-25 who have illicit drug use issues. Guided by concepts of the Model of Human Occupation (MOHO), the protocol targeted common occupational performance and deficit issues encountered by individuals with substance use. The authors first observed one, 3-hour IOP session at Central Wyoming Counseling Center (CWCC) and participated in one, two-hour meeting with the director of substance abuse programming at CWCC to obtain information about addiction recovery from other professions and the IOP structure. Information gathered was compared to findings from a literature search and a 12-session guide was developed for OT services to complement existing programming provided at CWCC.

Each session protocol was designed to be held in one, three-hour group session and includes objectives, warm-up activities, an occupational focused activity, prompting questions for discussion, a wrap-up, and a take home activity. Each session builds off one another and the take home activities are intended to integrate the participant into the next session. Session topics include: 1) exploring addiction as an occupation 2) occupational exploration 3) coping skills through sensory stimulation 4) spirituality and coping 5) time management and scheduling 6) healthy habits: ADLs, sleep/rest, nutrition 7) leisure identification 8) roles and routines, productive education/work 9) intimacy and social participation 10) social participation and anger 11) daily coping skills with stress and recovery 12) takin’ care of business: how to get what you want.

This scholarly project provides a foundational program to be used as a starting point for occupational therapy intervention in an intensive outpatient chemical dependency program. The protocol might be applied beyond the IOP
structure to settings such as acute inpatient, state hospital, or long-term mental health facilities. Elements of the program might also be altered for application to alternative populations such as individuals over age 25, those with alcoholism, or those with other various drug dependencies. In summary, this scholarly project provides a theoretical model, occupation-based interventions, an extensive literature review, and an opportunity for future research and clinical development based on the role of OT in an IOP for substance abuse recovery.

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<th>Lynn Bielski &amp; Luke VanHavermaet</th>
<th>Post Secondary transition services for students with Autism Spectrum Disorder: An occupational therapy approach</th>
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**Problem:** Individuals with Autism spectrum Disorder comprise a rapidly growing population with approximately 1/68 children being diagnosed annually (CDC, 2016). Individuals with ASD often have difficulties with social interaction, sensory processing, emotional regulation and adapting to environmental changes (Rogers, 2010). Individuals who are diagnosed early in life are provided a wide variety of services to minimize these symptoms to maximize independence later in life, and in an academic setting. As individuals with Autism Spectrum Disorder come to the end of their K-12 education journey, the transition planning completed throughout the student's final year of high school are not carried out as support services are no longer required under law following graduation (IDEA, 2004). This lack of professional support following high school graduation may inhibit students’ success and place distress on family members during the postsecondary transition.

**Methodology:** An extensive literature review was completed on the supports provided to students with Autism Spectrum Disorder as well as student and postsecondary faculty members’ perceptions of the accommodations and experiences of this population at post-secondary institutions. The review demonstrated a lack of evidence supporting transition services for the ASD population during the transition from high school and post-secondary educational settings. The literature reveals a lack of communication between high school and postsecondary support professionals to facilitate ASD student transition. The role of the occupational therapist in relation to ASD student transition is explored including their ability to analyze student’s skills, everyday contexts and meaningful occupations and design accommodations appropriate to student’s skills and abilities. In addition, occupational therapists knowledge of healthcare policy and their holistic view of individuals was noted as complimentary to the services already provided by existing support professionals. Promotion of occupational therapy services to professionals working in high school and post-secondary education settings was identified as central to establish the occupational therapy role in postsecondary transition services.

**Product:** A scholarly article was written to be published in a non-OT professional magazine to advocate for the integration of occupational therapy services into the postsecondary transition planning and implementation following high school graduation. The article introduces the reader to the gaps in transition services for the ASD population, provides an overview of the occupational therapy role, (based on the Person-Environment-Occupation (PEO) Model), provides a practice scenario demonstrating the value of the occupational therapy role in enhancing a student’s emotional, social, academic and independent living skills during their post-secondary experience, and provides an overview of an existing transition program for reader reference.

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<th>Dr. Anne Haskins</th>
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**Introduction:** Occupational therapists working in rural areas face a number of barriers when trying to access continuing education courses, which are required to maintain licensure. Some of the largest barriers these practitioners face includes: time, cost of the courses, and ease of access. Continuing education often requires travelling, time out of one’s day, and a fee ranging from $25-$300 (NDOTA, 2016; Continuing education, 2013). The purpose of this scholarly project was to address continuing education requirement-related needs and education access for occupational therapists working in rural areas.

**Methodology:** Following the completion of a thorough literature review and identification of a topic area for the continuing education course, materials and resources were gathered for the content of a presentation. Following approval of a final outline for an educational course, the online product was created utilizing Adobe Presenter.
Results: A free access, online continuing education course was developed and centered around a currently trending population in the U.S., adolescents experiencing addiction to opioids. A PowerPoint was created to present an overview of opioids, the person factors of a client, the various environments often affected by addiction, and the occupations that are most commonly altered as a result of opioid addiction. In addition, numerous assessments, interventions, and resources for parents and clients were presented. The information presented for this course is centered around the occupational therapy theory of Person-Environment-Occupation. This model focuses on the individual factors of person, environment, and occupation, as well as, the interactions between each of them. A case study was incorporated throughout the PowerPoint to allow the opportunity for therapists to apply the knowledge gained during the course. The final recording of the course as well as a concluding quiz, will be housed on the University of North Dakota’s Occupational Therapy Program website and free for the public to access for continuing education credit.

Conclusions- We anticipate that the online education session entitled “Occupational Therapy’s Role in Opioid Addiction” will provide valuable information for occupational therapists, specifically in rural areas. In addition to providing a no-cost and easily accessible continuing education opportunity, we anticipate that occupational therapists will find the ability to access this continuing education useful for their practice knowledge and contributing to continuing hours needed for state licensure.

Significance- Rural occupational therapists face the barriers of access and cost when trying to obtain continuing education credits. The number of teens abusing opioids is also rising, both in the state of North Dakota and across the nation. To address these problems, we created a free access, online continuing education course to aid in education of therapists working with these individuals. This course is unique as there are little to no continuing education courses available regarding this population.

### Professor Nicole Harris

**Rodney Palmer and Ashley Palmer**  
**Advisors: Prof. Nicole Harris and Prof. Breann Lamborn**

**Educating Caregivers in Assisted Living Facilities Who Care for People with Dementia**

**Literature:** It is estimated that approximately 40-71% of residents living within assisted living facilities (ALFs) have a form of dementia or other cognitive impairment (Harris-Kojetin et al., 2016; Zimmerman, Sloana, & Reed, 2014). There is also evidence that suggests that caregivers working within ALFs have inadequate knowledge on how to care for a resident diagnosed with dementia (Hughes, Bagley, Reilly, Burns, & Challis, 2008; McKenzie, Teri, Pike, LaFazia, & Van Leynseele, 2012; Sharpp, Kayser-Jones, & Young, 2012; Zimmerman et al., 2014). The authors of this scholarly project created an instructional manual that can be used to train caregivers within ALFs to address the current gap in their knowledge.

**Methodology:** The authors used the information gained from the literature review, information gathered through collaboration with faculty at the University of North Dakota’s Occupational Therapy Program, and information gathered after researching topics related to dementia to create the product.

**Product:** The instructional manual was created using Knowles Andragogy Adult Learning Model (Knowles, Holton, & Swanson, 2012). The introduction to the manual includes information on how to apply the adult learning model throughout the educational sessions. The educational materials include three 2-hour PowerPoint slide shows that include information on what dementia is, how dementia impacts a resident’s life, an overview of the Cognitive Disabilities Reconsidered Model (CDRM) by Levy and Burns (2011), and different strategies the caregivers can use at each level of the CDRM to better care for residents diagnosed with dementia. The manual also includes an evaluation of learners’ knowledge by using a pre-test and post-test design. Finally, a small handout was created that contains important concepts that were discussed in the instructional materials so the learners can reference the information later if needed. It is intended for the instructional manual to be utilized by an occupational therapist who understands how to apply the adult learning theory and has adequate knowledge with the CDRM. The education material can be used to meet the continuing educational requirements within the state of Wyoming for ALF.
Dr. Janet Jedlicka

| Brianna Berendt and Carly Hills | Wise and Well: A Pilot Study on the Effects of Providing a Wellness Group Protocol to Enhance Occupational Fit among Rural Community Dwelling Elderly Women |
| Advisors: Dr. Janet Jedlicka and Prof. Nicole Harris |

**Introduction:** There is a need for rural services for community-dwelling women due to a lack of resources, transportation, and social opportunities (Bacsu et al., 2016; Averill, 2012). Likewise, Shimada et al. (2014) emphasized the impact and causes of social isolation on elderly individuals and how important it is for elderly individuals to establish a support system when facing challenges throughout later life. A third problem was described by Choi et al. (2013) in that elderly individuals may experience a loss of independence and functional decline can result from being physically inactive. This indicates that there are increased health risks and may be functional limitations for elderly individuals who participate in physical exercise; however, finding a balance of maintaining independence and improving well-being is important for older individuals (Choi et al., 2013). Lastly, measuring quality of life may suggest information for creating evidence-based interventions to improve health outcomes (Scogin et al., 2016).

**Methodology:** IRB approval was obtained through the University of North Dakota prior to beginning this study. Participants were recruited by hanging flyers within the Casper, Wyoming community. Eight participants started the program, but two dropped out, so there was a total of six participants overall in our study. Written informed consent was obtained during the first session of the study. The participants consisted of well women over the age of 60 living in the Casper, Wyoming community. The seven-week program took place at a local Lutheran church in Casper, Wyoming. A group protocol was used to guide the wellness program (Peinovich, Triller, & Stube, 2015). A mixed methods study was completed in order to determine effectiveness in increasing quality of life in elderly community-dwelling women who live in a rural area. The World Health Organization Quality of Life Brief form was used as an outcomes measure to determine if there was an increase in quality of life among participants. Qualitative data was obtained through session summaries and a feedback survey that was completed at the end of the program.

**Results:** There was significance found in Physical Health, Environmental Factors, and Overall Health domains, with a p value of < 0.05. There was a correlation between Physical Health and Psychological domains at pre- and post-assessment, and a correlation between Environmental Factors and Overall Health at pre-assessment, but not at post-assessment. The qualitative data suggests that the women enjoyed the group and were able to make social connections and identify techniques to remain independent within their homes.

**Conclusions:** It was found that this program had an impact on the participants within our study, but the sample size wasn't large enough to show statistical significance in measuring quality of life. Although the results of the WHO-QOL BREF were not statistically significant, qualitatively the participants described the importance of overall health, living independently within the community, forming social bonds, having intergenerational discussions, and controlling factors that contribute to overall quality of life.

**Significance:** Programs of this nature can be used in practice to promote health, well-being, social participation, and leisure engagements for older individuals living in rural areas. By providing a wellness program in rural areas, factors that influence quality of life can be addressed.

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Dr. Cindy Janssen

| Peter Owens and Tavin Deru | Occupational Therapy’s Role and Evidence Based Interventions for Sleep Needs of Older Adults in Long Term Care Facilities |

There is a growing population of older adults, or those people over 65 years old in long term care (LTC) facilities who report sleep deficiencies at a heightened rate, leading to decrease function, cognition, and social participation while increasing mortality, morbidity and the risk of falling (Booth & McMilliam, 2009; Cipolli, Mazzetti, & Plazzi,
2013; Crowley, 2011; Dzierewski et al., 2014; Helbig et al., 2013; Kuck, Pantke, & Flick, 2015). Occupational therapists (OTs) offer non-pharmacological sleep interventions in the long-term care facilities but are not present at many relevant sleeping times.

This scholarly project is a flow chart aid to promote an interdisciplinary approach to non-pharmacological sleep interventions incorporating OTs and para professionals, who are available to assist in prescribed sleep interventions. These evidenced based interventions will include reduction of screen time prior to sleep, daily self-care scheduling, modifications to light, temperature, sound, notaria considerations, and participation in meaningful activities. The outcomes measures explored include actigraphy and The Pittsburgh Sleep Quality Index (PSQI)

The Ecology of Human Performance Model (EHP) was used to guide all aspects of the creation of the sleep flow chart. The EHP model was chosen due to its use of a common language among medical professions, structure to organize the components of sleep within LTC facilities, and identification of OT intervention types. The creation of this sleep intervention flow chart included a scoping review of older adult sleep intervention literature. The scoping review was used because of the paucity of literature that is specific to OT and the interdisciplinary nature of the sleep intervention flow chart.

There are three components to the scholarly project including an intuitive easy to read 24 by 36 inch sleep flow chart to be displayed for quick reference, an infographic that incorporates icons and includes additional information and citations for the use of OTs, and a user guide to the flow chart with additional references and instructions for further explanation to possible interventions.

All components of the final sleep flow chart project were reviewed by 5 individuals with limited knowledge of older adult sleep interventions for comprehension of material, this included a certified nurse assistant and an individual who spoke English as a second language to ensure the language presented would be understood. The sleep flowchart is unique to OT as it identifies the occupation of sleep to be interrelated with basic activities of daily living and the presence or absence of environmental supports at a LTC facility. The flowchart was intended to benefit OT by providing OTs with a simple visual display to assist with educating paraprofessionals on identifying intervention methods to improve their residents’ sleep.

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### Professor Breann Lamborn

**Nicola Grun and Lauren Trokhimoinen**

Preparing Occupational Therapists for Treatment of the Transgender Population: A Training Guide for Supportive Care

Throughout current literature, it is clear that people who identify as transgender face larger percentages of occupational injustices and deprivations than people who identify with the sex they were assigned at birth (Bar, Jarus, Wada, Rechtman, & Noy, 2016; Twinley, 2014). There is no occupational therapy specific research or programming for transgender people (Beagan, Chiasson, Fiske, Forseth, Hosein, Myers & Stang, 2013), which indicates the need for supportive care for this population. The purpose of this scholarly project is to develop a training guide to prepare occupational therapists to provide supportive care for the transgender population. The model Ecology of Human Performance (EHP) will guide this scholarly project, which focuses on the environmental stigmas that surround transgender people, and how occupational therapists can create all-inclusive environments to enhance care for transgender people and all communities. The EHP model identifies that stigma and discrimination interfere with participation in occupations that are meaningful to people (Brown, 2014). Therefore, EHP is a good fit for training occupational therapists who may have conscious and unconscious personal biases towards transgender people. Anticipated results include occupational therapists playing a role to decrease stigma towards transgender people, that may be present in their immediate communities, and stigmas that are present in the American health care system and society as a whole.
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<th>Dr. Mandy Meyer</th>
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<td>Rachel Kos and Jessica Nordmeyer</td>
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**Purpose:** Adaptation to psychosocial aspects of hand injury is often undervalued, yet a critical issue to address in traumatic hand injuries (Schier & Chan, 2007). The purpose of this scholarly project was to develop a guide to address such factors in a hand therapy setting.

**Methodology:** A review of the literature was conducted to demonstrate the importance of hands, psychosocial implications related to hand trauma, and current strategies used by practitioners to address these problem. Findings of the literature review concluded that the most prevalent psychological factors related to hand injuries include mood and trauma disorder symptomatology, problems related to role identity, work and financial stress, issues related to social interactions and relationships, stigma, pain, and dysfunctions in sleep. Authors used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product to assist therapists in addressing psychosocial factors related to hand trauma.

**Results:** The findings of the literature review were used to develop a guide that aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client’s overall wellbeing and function. The first portion of the product includes a self-assessment evaluation tool that gives the client an opportunity to evaluate in which ways the hand trauma has affected functioning and overall wellbeing on a psychosocial level. The second half of the product includes intervention ideas that correlate with the psychosocial implications that were previously self-assessed by the client to give therapists ideas of how to address these factors.

**Conclusions:** The identification and intervention of psychological implications will assist in successful adjustment and recovery across many consequences of sustaining a traumatic hand injury (Smurr et al., 2008). Despite the significance of hands in day-to-day function, many therapists are criticized for addressing the physical dysfunction of the hand exclusively and disregarding psychosocial implications (Bates & Mason, 2014). The authors created a product that will aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client’s overall wellbeing and function.

| Andrew Ostrander and Jacy Whaley | Occupational Therapy Resource Guide for the Utilization of Three-Dimensional Printing |

**Purpose:** Many practitioners in the field of occupational therapy are unaware of the benefits and importance of implementing a three-dimensional (3D) printer in practice indicating that there is a need for occupational therapy involving the fitting, environmental modifications, and training on how to properly use a 3D printed prosthetic within the upper extremity. 3D printing is when a digital design is converted into a designed material that has a functional purpose and different materials can be used including metal, plastics, and composite materials (Thomas & Claypole, 2016). 3D printing has many unique and effective uses like creating adaptive devices, feeding devices, prosthesis, and splinting. While 3D printing is currently being implemented across certain pediatric populations creating prosthesis, a lack of evidence was noted regarding the use of a 3D printer throughout occupational therapy. (Burn, M. B., Anderson, T., & Gogola, G. R., 2016). This is unfortunate as 3D printing is an innovative field of study that can aid many populations in becoming more independent and functional in daily tasks while increasing quality of life.

**Methodology:** A comprehensive literature review on the populations that utilize printing was conducted. The lack of occupational therapy involvement in the transition process of creating and training for the use of a 3D prosthetic, yields the demand for occupational therapy services. The information obtained aided in the development of a resource guide containing the importance of occupational therapy services involved with the transition process of a 3D printing. The literature review led the authors to focus on the main areas of rehabilitation phases, splinting and prosthetics, adaptive equipment, 3D printers, printing filaments, and various safety considerations.

**Conclusions:** The integration of occupational therapy in 3D printing will greatly ease the clients’ transitions during rehabilitation phases while increasing their level of function and quality of life. 3D printing is a cost effective, user-friendly, creative, and innovative approach to add to practice. 3D printing is an up-and-coming area of occupational therapy and has the potential to change lives.
Students with disabilities who attend college face many challenges with little support; and therefore are at a higher risk of preemptively dropping out of college (Mamiseishvili & Koch, 2011). Some of these challenges and barriers include but are not limited to roles and responsibilities of support staff and a greater demand for students’ self-reliance (Garrison-Wade, 2012). The Student Organization for Accessibility and Resources (SOAR) Program is a current peer mentorship program missioned to provide guidance and mentorship for college students with disabilities as they negotiate the complexities of transitioning and attending college (Morrison, personal communication, September 13, 2016). Peer mentorship programs, similar in nature to SOAR, have proven to influence higher academic achievement, improve student retention, and enhance general self-confidence, personal growth, self-empowerment and social integration of students with disabilities (Ward, Thomas, & Disch, 2014). Research with college students with disabilities who participated in a peer mentorship program indicated that college students with disabilities additionally demonstrated an increase in persistence and graduation rate (Garrison-Wade, 2012; Vaccaro, Daly-Cano, & Newman, 2015). However, there has been limited evidence regarding a document that provides structure and guidance to create and promote longevity of a peer mentorship program.

A policies and procedures manual was developed that will guide and govern the actions of college students and staff who wish to enact and utilize a peer mentorship based program with the goal of enabling college students with disabilities to attend and fulfill academic and social desires within the college realm. The primary objective of the policies and procedures manual is to provide successful and efficacious services for students with disabilities. A secondary objective is to provide a template for other student organizations to create a similar program to serve college students with disabilities throughout the country. This scholarly project will provide support for the development and facilitation of the current SOAR program.

**Alison Ikeogu & Kelsey Kanwischer**

**Successful Transition to Home Following a Spinal Cord Injury: A Resource Guide for Home Modifications**

**Purpose:** Home modification is a unique area of practice that aims to increase independence of desired tasks by decreasing the physical limitations in and around the home (Aplin, Jonge, & Gustafsson, 2014). The process of modifying the home can be difficult, decreasing emotional well-being and satisfaction (Aplin, Jonge, & Gustafsson, 2014). Studies have identified the need for home modification services for individuals post Spinal Cord Injury. Silver, Ljungberg, Libin, & Groah (2012) found that injured persons were reintegrated into the community with limited knowledge regarding housing and accessibility options. The purpose of the product was to provide a tool for occupational therapists to deliver accurate, safe, and holistic recommendations and resources in order to ease the transition from rehab to home and assist in facilitating collaborative conversation with members of the home modification team.

**Methodology:** The authors conducted an extensive literature review in order to develop a greater understanding of the personal and environmental factors that contribute to an individual that has sustained an SCI. The information obtained from the review of literature was then analyzed using the Person Environment Occupation (PEO) model, an occupational therapy model analyzing the relationship between the person, environment, and the occupations they complete (Turpin & Iwama, 2011). The areas of need were identified through the literature review, which found: a lack of a holistic approach when providing home modifications, infrequent use of an assessment/guide when making recommendations for a home, and the home not fitting the individual’s standards.

**Results:** Based on the methodology described above, the authors developed **Successful Transition to Home Following a Spinal Cord Injury: A Resource Guide for Home Modifications** for occupational therapists working with individuals who have sustained an SCI that require modifications to their home.

**Conclusions:** Limitations of the guide that the authors identified include: the product has not been tested in a clinical setting, effectiveness and practicality within a hospital or clinic have not been established, and it is not a comprehensive list of resources. Areas of strength that the authors identified include: the variety of resources, the holistic approach integrated throughout the guide, and the opportunity to collaborate with other professions. It is
recommended that the guide be introduced to someone with an SCI, and outcome measures be implemented to
determine effectiveness. The guide created will contribute to the profession of occupational therapy by providing
working occupational therapists with a tool to enhance the home modification process.

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### Dr. Sarah Nielsen

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<th>Leah Sherman and Brittany Davis</th>
<th>Effectiveness of Occupational Therapy Interventions for Students with Mental Illness Transitioning to Higher Education: A Systematic Review</th>
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**Objective:** To examine the available evidence for interventions within the scope of occupational therapy for students with mental illness during the transition process to postsecondary education.

**Method:** A systematic review yielded seven articles including two systematic reviews, three one group pretest/posttest design, one naturalistic and one scooping review related to the transition process to post secondary education.

**Results:** Occupation-based interventions emphasized the occupation of education instead of focusing on co-occurring occupations a student may frequently participate in when enrolled in postsecondary education. Programs emphasized environmental approaches such as using the students’ past experiences, building self-advocacy skills, learning how to access environmental supports, such as welfare and food stamps, and accessing supportive education services. Performance skills were addressed to prepare students for academic participation and included: motor, process, social interaction skills, skills related to writing, reading, public speaking, social participation, and stress management. Performance patterns included the roles and routines of the student. Findings have limited generalizability due to lower level of research designs and limited number of studies.

**Conclusion:** Higher-level research designs need to be completed to develop best practices in transition services, to further expand occupational therapy’s role in helping students with any mental illness transition to postsecondary education.

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### Dr. Jan Stube

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<tr>
<th>Kate Gearman and Tessa Richards</th>
<th>The Role of Occupational Therapy in Primary Care with Older Adults</th>
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The older adult population in the United States (U.S.) is projected to increase over the next 30 years (United States Census Bureau, 2014). With that, nearly two-thirds of older adults in the U.S. are diagnosed with at least one chronic health condition (Center for Disease Control and Prevention [CDC], 2016b). These findings highlight a need for more specialized services for this population. Primary care is one sector of healthcare service delivery operating within the U.S. healthcare system. Presently, occupational therapy services are limited in primary care settings as defined in this scholarly project.

Occupational therapy services have demonstrated efficacy in providing cost-effective care that can reduce hospitalizations, enhance quality of life, delay effects of aging, and promote disease prevention (Clark et al., 2012; Jackson, Carlson, Mandel, Zemke, & Clark, 1998; Muir, 2012; Rogers, Bail, Lavin, & Anderson, 2016). Therefore, occupational therapists are well-equipped to provide interventions to older adults in order to prevent the progression of chronic disease to a point at which functional performance in valued daily occupations is limited.

A review of the literature helped to guide the development of this scholarly project and the Occupational Adaptation model assisted in organizing the product (Turpin & Iwama, 2011). The overall aim of this scholarly project is to advocate for the establishment of occupational therapy positions within primary care settings with older adults experiencing chronic conditions in order to enhance the preventive services being provided to this at-risk population, benefiting both the client and overall healthcare system. The product
includes advocacy materials as well as occupational therapist and client guides to promote the inclusion of occupational therapy in primary care settings working with older adults experiencing chronic conditions. It is anticipated that the occupational therapist guide will assist practitioners in implementing interventions that target the specific needs of each client. With that, the client guide is anticipated to provide the therapist and client with materials that can be easily accessed and utilized throughout the intervention process. We anticipate that our scholarly project will facilitate the wellness trajectory within our U.S. healthcare system for the improvement of quality of life for our older adult population.

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<th>Kelsey Glatt &amp; Tracy Parish</th>
<th>Leisure Occupations for Adults with Physical Disabilities: A Guide for Occupational Therapy Practice</th>
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<td>Advisor: Dr. Stube</td>
<td>Problem: Limited research is available addressing active leisure participation and how leisure participation affects quality of life (QOL) of individuals following physical disability. Research shows a correlation between adaptive leisure participation and higher rated life satisfaction, community integration, perceived competence, and reduced negative mood states (Chun et. al., 2008; Lundberg et al., 2011a). There are currently no occupational therapy assessments for clients with physical disabilities having a goal of participation in active leisure occupations. Purpose: To provide information and resources to occupational therapists and clients with paraplegia or lower tetraplegia SCI in order to enhance participation in active leisure occupation. Methodology: A review of literature was conducted utilizing scholarly databases such as CINAHL, PubMed, and SPORTDiscus. It was evident that there is limited research discussing the role of occupational therapy in leisure participation advocacy. From the review of literature and synthesis with the Person-Environment-Occupation model (Law et al., 1996), the following product was developed and is ready for clinical application. Results: A Guide for Occupational Therapy Practice in Active Leisure Occupations for Adults with Paraplegia and Lower Tetraplegia was developed to encourage active leisure participation for the target population. Product sections include: educational materials, Adaptive Active Leisure Occupational Therapy Evaluation and Intervention Planning, and a case study example. Additional resources are provided for adaptive equipment and adaptive programming. Conclusion: This guide was developed by the authors to address the need for active leisure assessment and intervention planning for clients with physical disability. Occupational therapists are well equipped with professional skills and competencies (i.e. manual skills, clinical reasoning, interpersonal skills, and advocacy tools) which will help to meet the needs of this population. To our knowledge, there are no other tools that match the scope of information and resources that are provided in this guide. The information included in this guide is of benefit to all health care professionals advocating for client participation in meaningful occupations.</td>
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<th>Dr. Sonia Zimmerman</th>
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<td>Michael Thurn and Emilee Rath</td>
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Introduction: Following a stroke, individuals experience a wide variety of physical and psychosocial impairments. While physical impairments are commonly given attention by medical practitioners, psychosocial impairments are often overlooked or undiagnosed.(Hildebrand, 2015). Unfortunately, the same is true in occupational therapy, where physical and psychosocial issues have not been receiving the same amount of attention, physical issues being addressed far more than psychosocial issues (Gillen, 2014). The purpose of this scholarly project is to provide occupational therapists a guide to use of current evidence-based assessments and interventions to address
psychosocial impairments following stroke. The guide focuses on evidence-based assessments, and interventions appropriate to a wide variety of occupational therapy settings. 

**Methodology:** The review of the literature supported the need for a therapy guide translating current research literature for occupational therapists to address interventions and assessments specific to psychosocial impairments post-stroke. The Model of Human Occupation’s six steps of therapeutic reasoning were selected to structure the guide and emphasize the need to consider the individual as a collaborator in the intervention process.

**Results:** The product includes assessments and evidence based interventions that therapists can use throughout the therapeutic reasoning process. The guide focuses on evidence based assessments that can be used by occupational therapists to assess common psychosocial issues that occur after a patient experiences a stroke. The interventions included in this guide have been published in the Occupational Therapy Practice Guidelines for Adults with Stroke (Wolf & Nilsen, 2015). These interventions came from the work of Mary Hildebrand’s (2014), Effectiveness of Interventions for Adults With Psychosocial or Emotional Impairment After Stroke: An Evidence-Based Review. This guide, including assessment and interventions, is guided by the Model of Human Occupation (MOHO), specifically, MOHO’s 6 steps of therapeutic reasoning.

**Conclusions & Significance:** A product has been created to guide occupational therapists through the therapeutic process in order to encourage treatment of not only physical but also psychosocial impairments that accompany a stroke. A potential limitation for this product is that the interventions included are evidence based and have been tested by researchers in the past outside of the profession of occupational therapy. The product does not offer interventions that may be effective but just have not yet been tested in research. Future improvements to this product could include testing the specific evidence-based interventions in the profession of occupational therapy. Further, other intervention options that are not yet considered evidence-based can be tested and added to the product in order to increase options for clients and therapists.

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<th>Jamie Schacht &amp; Alison Tonsager</th>
<th>Female Veterans and Homelessness: A Resource Guide for Occupational Therapists</th>
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**Problem:** Female veterans are the fastest growing subpopulation among the homeless population in the United States (U.S.) (Boothe, 2017). Female veterans report lack of access to gender-specific programs and therapy groups within the United States Department of Veterans Affairs (VA) to meet specific needs post-deployment (U.S. Department of Veterans Affairs, 2015b). Difficulty with reintegration post-deployment has been linked with homelessness among female veterans. There is evidence to support female veterans' over-representation in the homeless population is due to a higher prevalence of risk factors for homelessness as compared to male veterans and females within the general population (Byrne, Dichter, & Montgomery, 2013). There is a lack of literature related to the role occupational therapists working with female veterans; however, there is current literature to support occupational therapy’s role in addressing mental health and reintegration risk factors post-deployment (Cogan, 2014).

**Methods:** A literature review was conducted on topics related to gender differences among veterans, experiences of female veterans, mental illness, homelessness, and occupational therapy services. In the absence of randomized control studies in occupational therapy literature on homelessness among female veterans, this project draws from evidence of the occupational therapy role in mental health, veteran population, and homeless persons. Based on the results of the literature, *Female Veterans and Homelessness: A Resource Guide for Occupational Therapists* was created for occupational therapists working in community-based settings. The Canadian Model of Occupational Performance and Engagement and Canadian Practice Process Framework were utilized to guide the development of the resource guide. Recommendations for the occupational therapy process include assessment, interventions, re-evaluation, and discharge planning.

**Conclusions:** The purpose of this scholarly project and the resulting resource guide is to increase occupational therapists’ awareness for the need of gender-specific care for female veterans receiving services in community-based settings. Occupational therapists are qualified to address and treat risk factors for homelessness among female veterans. The resource guide is a positive contribution to providing client-centered care for female veterans reintegrating into civilian life. *Female Veterans and Homelessness: A Resource Guide for Occupational Therapists* is a tool that occupational therapists can utilize to implement gender-specific care and address the risk factors for homelessness among female veterans.