

*Methodist University's OTD Program Presents the*

# **Fourth Annual Occupational Therapy Class of 2024 Student Scholarship Research Symposium**



**April 15, 2023 | 8 a.m.**

PA Auditorium, Medical Lecture Hall & Streamed Online

Methodist University

5400 Ramsey St., Fayetteville, NC 28311



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# Introduction to the OTD Symposium

These student presentations represent a component of the OTD curriculum that meets the educational standards for scholarship and evidence-based practice. The Clinical and Community Capstone Scholarly Project is part one of the capstone curriculum and begins in the summer term of the first year of the program.

This project is mentored by a faculty member and is aligned with the mentor's scholarly agenda. Completion of the Capstone Scholarly Project prepares the student and serves as the impetus for the culminating Capstone Experience. It generally begins with a literature review, PICO question generation, traditional qualitative or quantitative methods of inquiry, and culminates in the final didactic semester of the program with peer-reviewed dissemination efforts.

## OTD Scholarly Agenda

Our departmental faculty scholarship agenda seeks to build quality evidence that spans the depth and breadth of the occupational therapy profession. The OTD program faculty, in collaboration with our students, strives to advance the profession through scholarly engagement, enrichment, and empowerment. Collectively, our scholarly work will create a well-rounded, creative, and collaborative environment that uses a multidisciplinary approach to incorporate the basic and applied sciences, including rehabilitation science, health and wellness, social sciences, and engineering. Pragmatically, our research is grounded in theory, molded by the grant-writing process, and executed in clinical and community-engaged settings. Simultaneously, our faculty scholarship agenda coincides with the evidence-based practice and research course series, allowing us to build a strong peer-mentor relationship with our OTD students and foster student-led capstone scholarship. The ultimate goals of our work are to create evidence-driven occupational therapists and scientists who will contribute to advancing human health and wellness through participation in everyday life activities.

## Faculty Capstone Mentors

Matthew Foreman, PhD  
 Meredith Gronski, OTD, OTR/L, CLA, FAOTA  
 Amy Haynes, OTD, OTR/L, ASDCS  
 Nikki Kardouni, OTD, OTR/L, CLT  
 Sheri Michel, OTD, OTR/L  
 Charlotte Navarro, OTD, OTR/L  
 Amy Spence, OTD, MSED, OTR/L, ASDCS



<b>8:30 - 8:45 a.m.</b>	Opening Remarks	Gronski
<b>8:45 - 9 a.m.</b>	A community-based program targeting adolescent children to increase knowledge of Type II Diabetes prevention	Kelsey Carroll Mentor: Kardouni
<b>9 - 9:15 a.m.</b>	Exploring the effect of an occupational therapy pre-employment intervention program for adolescents with intellectual disabilities	Maddie Adkins Mentor: Spence
<b>9:15 - 9:30 a.m.</b>	Addressing issues regarding mental health in college athletes through the lens of an OT to improve well-being and quality of life	Anna Marie Tyndall Mentor: Foreman
<b>9:30 - 9:45 a.m.</b>	Developing a general protocol for implementing switch-adapted and 3D-printed devices for people facing environmental barriers due to upper extremity motor impairments	Christopher Harper, Tajze Johnson, & Raymond McCall Mentor: Foreman
<b>9:45 - 10 a.m.</b>	Measuring post-concussion coping skills in student athletes at Methodist University	Bethany Vazquez Mentor: Foreman
<b>10 - 10:15 a.m.</b>	<b>Break</b>	
<b>10:15 - 10:30 a.m.</b>	Implementation of occupational therapy to aid internally displaced persons: a systematic review	Abigail Veeder & Megan Hill Mentor: Michel
<b>10:30 - 10:45 a.m.</b>	Filling the gaps by addressing occupational therapy's role in refugee health and well-being during integration into the United States of America: a systematic review	Madelyn McKinney & Rachel Johnson Mentor: Michel
<b>10:45 - 11 a.m.</b>	Effects of postpartum depression symptoms on new mothers' health and well-being and factors that limit access to desired participation patterns and leisure activities	Lauren Finney & Caroline McCauley Mentor: Haynes
<b>11 - 11:15 a.m.</b>	The relationships of sensory abnormalities, anxiety, & intolerance of uncertainty on behaviors in children diagnosed with Autism Spectrum Disorder: a systematic review	Logan Jenness & Lauren Ruff Mentor: Haynes
<b>11:15 - 11:30 a.m.</b>	Participation patterns in leisure activities of families with a child with autism	Ryan Kesler Norton Mentor: Haynes
<b>11:30 a.m. - 12:45 p.m.</b>	<b>Lunch</b>	
<b>12:45 - 1 p.m.</b>	Perspective of parents, caregivers, and early childhood educators on strategies for independence in toileting	Madison Pyle & Keri Helton Mentor: Gronski
<b>1 - 1:15 p.m.</b>	Early childhood environments that support movement, self-regulation, and learning	Anna Rose Sink Mentor: Gronski
<b>1:15- 1:30 p.m.</b>	Examining the impact of sensory processing patterns on reading enjoyment and participation in early elementary students	Kimberly Stewart Mentor: Gronski
<b>1:30 - 1:45 p.m.</b>	Perceptions of the neonatal intensive care unit environment on co-occupation participation: a mixed methods study	Morgan Armstrong, Morgan Ewing, & Beth Romanowski Mentor: Navarro
<b>1:45 - 2 p.m.</b>	The effect of dyspareunia and vulvodynia on sexual participation and intimacy: from an occupational therapy perspective	Marichris Lacson Mentor: Navarro
<b>2 - 2:15 p.m.</b>	Closing Remarks	Foreman

# Occupational Therapy Symposium Presentations

## April 15 | 8:45 a.m. - 2 p.m.

8:45 - 9 a.m.

### A community-based program targeting adolescent children to increase knowledge of Type II Diabetes prevention

**Author:** Kelsey Carroll

**Mentor:** Nikki Kardouni, OTD, OTR/L, CLT

**BACKGROUND:** Diabetes continues to be a growing health concern in North Carolina and beyond, with estimates of prevalence increasing by 165% in the United States before 2050 (Ross et al., 2005). Furthermore, adolescents between the ages of 10-14 are experiencing increased independence in self-care and age-appropriate decision-making skills. This study aims to investigate Type II diabetic knowledge in adolescents and develop an educational program that addresses physical activity, nutrition, and self-management considerations.

**METHODS:** A one-group pretest-posttest study was utilized to determine change in knowledge of Type II Diabetes prevention and

management techniques in adolescents between the ages of 10-14 years. Six individuals participated in this study and were recruited via convenience sampling. Outcome measures were adapted from Bandura's Social Learning Theory, the American Diabetes Association, and the Patient Diabetes Knowledge Questionnaire. Data were analyzed using a non-parametric Wilcoxon signed-rank test.

**RESULTS:** Six participants completed the intervention and showed an increase in knowledge scores regarding diabetes prevention from pre- to posttest. However, this study did not yield significant results for an overall increase of knowledge of Type II diabetes.

**DISCUSSION:** Educating adolescents on diabetes, side-effects, risk factors, and self-management strategies can enhance overall quality of life and assist in developing healthy lifestyle factors. Additional longitudinal studies are needed to better understand the effectiveness of increased knowledge and implementation later in life.

9 - 9:15 a.m.

### Exploring the effect of an occupational therapy pre-employment intervention program for adolescents with intellectual disabilities

**Authors:** Maddie Adkins

**Mentor:** Amy Spence OTD, OTR/L

**BACKGROUND:** Transition teams would highly benefit from the presence and expertise of occupational therapy (OT) practitioners and enhanced provision of transition services. Occupational therapy practitioners have the knowledge and skillset to work with individuals who have difficulty with obtaining employment. The purpose of this research is to explore the effect of an OT pre-employment intervention program on self-determination for adolescents with disabilities.

**METHODS:** This study used a case study design (n=2) with a convenience sampling method. Participants needed to be students enrolled in school, between the ages of 13-19 years old, living with an intellectual or developmental disability, able to communicate in a verbal format and have the ability to follow simple written and

verbal instructions. The participants received 2 weeks of OT pre-employment intervention content for 90 minutes sessions for 3 consecutive weeks. Sessions consisted of individualized instruction and assistance with occupational performance and participation issues concerning employment. Participants were assessed with the AIR Self-Determination Scale (AIRS) and the Canadian Occupational Performance Measure (COPM) to collect pre and post-test data.

**RESULTS:** Both participant's AIRS scores increased after the intervention program. One participant's COPM scores increased while the other participant's scores decreased after the intervention program.

**DISCUSSION:** Implementing OT into a transition team would provide more client-centered and individualized services. Individualized services with a focus on self-determination would allow students to receive more meaningful and effective assistance and potentially produce more successful outcomes in obtaining employment. In the future, this study should be replicated with more adequate time to recruit, assess, and instruct participants.

9:15 - 9:30 a.m.

### Addressing issues regarding mental health in college athletes through the lens of an OT to improve well-being and quality of life

**Author:** Anna Marie Tyndall

**Mentor:** Matthew Foreman, PhD

**BACKGROUND:** Occupational therapy can play a role with improving mental health and quality of life for student athletes. The purpose of this study is to assess how stress, depression, and anxiety in athletes impacts participation and engagement in valuable occupations.

**METHODS:** This was a cross-sectional, descriptive, survey-based study design to examine mental health in Division I and Division III college athletes. A small sample of college athletes (n=44) that attended Campbell and Methodist University were used to study the effects of being a student-athlete on levels of depression, anxiety, and stress. The Depression, Anxiety, Stress Scale-21 (DASS-21), the World Health

Organization Quality-of-Life (WHOQOL) Scale, the Perceived Stress Scale (PSS), and custom survey questions were emailed for participants to complete using QuestionPro.

**RESULTS:** Results indicated that student athletes struggle with stress, anxiety, and depression at Division I and Division III levels. Using the DASS-21, student athletes at both Methodist and Campbell University reported having moderate to extremely severe anxiety. Along with increased anxiety, students at Campbell University reported feeling a significant amount of external pressure in their desired sport.

**DISCUSSION:** Occupational therapists have the ability to spread awareness, advocate, and implement programs for athletes struggling with mental health. The results of this study can be used to contribute to the knowledge surrounding stress and anxiety in college athletes, and to examine how stress and anxiety affect occupational performance in order to inform future research and create programs that can improve quality of life.

9:30 - 9:45 a.m.

### Developing a general protocol for implementing switch-adapted and 3D-printed devices for people facing environmental barriers due to upper extremity motor impairments

**Authors:** Christopher Harper, Tajze Johnson, & Raymond McCall

**Mentor:** Matthew Foreman, PhD

**BACKGROUND:** Three-dimensional (3D) printing is becoming popular in the field of OT for creating client-centered assistive devices for increasing independence and engagement in occupational activities. This intervention method allows a unique approach to provide occupational therapy services. The purpose of this study is to create an efficient and practical protocol for creating and implementing 3D-printed and switch-adapted devices as common home environmental modifications for persons living with upper extremity motor impairment.

**METHODS:** An iterative design process grounded in the Person-Environment-Occupation-Performance (PEOP) model was used to

create the protocol. Relevant OT literature regarding 3D printing and switch adaptation informed the strategies, devices, and assessments utilized. Models for 3D-printed devices were created in computer aided design software (e.g. Tinkercad) and existing models were compiled from online repositories (e.g. Thingiverse). A battery of valid and reliable assessments was created to holistically measure each individual client.

**RESULTS:** The main outcome is a protocol that implements a decision tree to connect clients with customized 3D-printed devices based on their assessed motor impairment, function, and activity participation goals.

**DISCUSSION:** We hypothesize that the developed protocol will effectively streamline practical use of 3D-printed and switch-adapted devices for any home environment. The short-term goal is to have a protocol utilizing devices to ameliorate limitations created by motor impairment. The long-term goals are to see the protocol become universal for implementing 3D-printed and switch-adapted devices within OT practice, and to create research evidence for protocol use for improving function, activity performance, and quality of life for persons with mobility impairment within their homes.

9:45 - 10 a.m.

### Measuring post-concussion coping skills in student athletes at Methodist University

**Author:** Bethany Vazquez

**Mentor:** Matthew Foreman, PhD

**BACKGROUND:** Concussions are a prevalent injury for student athletes that can disrupt their participation in everyday, valued activities. There are well-established protocols to aid in post-concussion recovery, but few of these protocols integrate aspects of mental health. The purpose of this study is to assess coping skills in post-concussion athletes at Methodist University (MU).

**METHODS:** This is a cross-sectional, comparative study including a small sample of post-concussion athletes (n=4) and a control group of healthy participants (n=10). Concussion participants were enrolled in the concussion protocol at MU and assessed via the Rivermead Post-Concussion Symptom Scale, the Coping Self-Efficacy Scale (CSES), and an occupational therapy (OT) questionnaire. The control participants

were assessed via the CSES and the OT questionnaire. Descriptive statistics were performed in Excel and used to compare assessment outcomes between post-concussion and control.

**RESULTS:** On average, the control group scored higher on the CSES (M=214.89±21.24) than the concussion group (M=167.75±36.88), signifying better overall coping abilities. According to the Rivermead, participants with more symptoms had lower coping skills. According to the OT questionnaire, barriers experienced by the concussion participants include difficulty concentrating, light sensitivity, procrastination, fatigue, putting off chores, and not being able to do schoolwork.

**DISCUSSION:** Coping self-efficacy and participation in valued occupations are negatively affected for individuals post-concussion. This study is important because it describes aspects of mental health in post-concussion care that could be addressed by OT-based interventions. In the future, it may be important to include OTs in the creation and implementation of post-concussion protocols for student athletes. programs.



10:15 - 10:30 a.m.

## Implementation of occupational therapy to aid internally displaced persons: a systematic review

**Authors:** Abigail Veeder & Megan Hill

**Mentor:** Sheri Michel, OTD, OTR/L

**BACKGROUND:** Many different crises can cause individuals to flee their home country such as wars, natural disasters, persecution, and violence. When individuals are removed from their homes but do not cross international borders, they become classified as internally displaced persons. Occupational therapy (OT) has a unique role in providing services to these individuals by helping build life skills that will translate throughout the resettlement process. The purpose of this project is to systematically review the literature pertaining to OT's role in the resettlement process for internally displaced persons.

**METHODS:** Between the months of January 2023 and March 2023, 107 articles, in total, were searched using multiple reputable databases. Specific inclusion and exclusion criteria were set regarding articles published in or after the year 2000, individuals classified as internally displaced persons, and articles published in English.

**RESULTS:** After reviewing the articles, 8 were included in the systematic review. Common themes were found including physical and mental wellbeing, occupational deprivation, and the role of OT in this multifaceted process.

**DISCUSSION:** After reviewing the literature, it is evident there is a gap in the refugee resettlement process that could be addressed by implementation of OT. During this state of uncertainty, internally displaced persons suffer from occupational deprivation affecting not only their mental, physical, and emotional well-being, but also their habits and roles. OT can provide evidence-based interventions that prioritize meaningful activities to allow these individuals to re-engage in their daily occupations, acquire new skills, and progress with successful transitions.

10:30 - 10:45 a.m.

## Filling the gaps by addressing occupational therapy's role in refugee health and well-being during integration into the United States of America: a systematic review

**Authors:** Madelyn McKinney & Rachel Johnson

**Mentor:** Sheri Michel OTD, OTR/L

**BACKGROUND:** The purpose of this research is to investigate the role of occupational therapy (OT) in assisting the refugee population during their integration and resettlement process into the United States (US). This research will focus on the refugees' experience during their transition into the US and how OT can improve their overall health and well-being.

**METHODS:** A systematic review of articles was compiled using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) checklist, appraised with the McMaster's Qualitative Critical

Review Form and Studies Evidence Matrix. Articles were included if translated to English, published no earlier than the year 2000, and involved individuals identified as refugees residing within the US. Articles were excluded if identified as a systematic review, scoping review, or literature review.

**RESULTS:** After reviewing the articles, 23 were included in the systematic review. All reviewed articles provided information on the needs of refugees during their integration and resettlement process within the US. The two main themes identified were negative impacts on occupational deprivation and poor mental health.

**DISCUSSION:** The role of OT is not as active during the refugee integration and resettlement process within the US as is needed. Further research around this emerging topic must be conducted to demonstrate how the implementation of OT is needed during the refugee integration and resettlement process within the US.



10:45 - 11 a.m.

### Effects of postpartum depression symptoms on new mothers' health and well-being and factors that limit access to desired participation patterns and leisure activities

**Authors:** Lauren Finney & Caroline McCauley

**Mentor:** Amy Haynes, OTD, OTR/L, ASDCS

**BACKGROUND:** Leisure is a fundamental part of daily occupations; however, women experiencing symptoms of postpartum depression are lacking transitional skills into motherhood. The purpose of this study is to identify the factors that affect new mothers' mental health status and understand the impacts of symptoms of postpartum depression on their desired occupational roles and leisure participation patterns.

**METHODS:** This was a cross-sectional, survey-based, descriptive study design. Participants who have given birth in the last 2-24 months experiencing symptoms of postpartum depression were recruited through flyers posted in community groups and personal posts on social media platforms. The survey was designed to collect

demographic information, symptoms and understanding of postpartum depression, and how postnatal period has affected roles, routines, habits, and their ability to participate in desired leisure activities.

**RESULTS:** Participants completed 3 standardized assessments (EMAS, LMS, LSQ-9) within the survey. Results showed moderate, significant correlation between EMAS and LSM ( $r=0.65, p<0.001$ ); good, significant correlation between EMAS and LSQ-9 ( $r=0.82, p<0.001$ ); and fair, significant correlation between LSM and LSQ-9 ( $r=0.44, p=0.003$ ). Factors that contributed to quality of health included stress levels/management as well as perceived education on postpartum period from prenatal providers.

**DISCUSSION:** The results showed a relationship between engagement in meaningful activities and overall life satisfaction for new mothers. Occupational therapists have a dynamic lens that considers the physical, emotional, and spiritual needs that can help new mothers establish transitional skills into motherhood. Future research can include further identifying additional factors contributing to adverse symptoms such as caregiver assistance and vocational status.

11 - 11:15 a.m.

### The relationships of sensory abnormalities, anxiety, & intolerance of uncertainty on behaviors in children diagnosed with Autism Spectrum Disorder: a systematic review

**Authors:** Logan Jenness & Lauren Ruff

**Mentor:** Amy Haynes, OTD, OTR/L, ASDCS

**BACKGROUND:** Autism spectrum disorder (ASD) has long been studied to better understand the causes and influences of ASD on individuals' daily lives. Anxiety and sensory abnormalities are common comorbidities of ASD, and intolerance of uncertainty (IU) is becoming increasingly studied. Restricted and repetitive (RRB), maladaptive, and problem behaviors often negatively affect daily life and occupational performance of these individuals; however the reason remains unexplored. The aim for this systematic review was to investigate the relationships between IU, anxiety, sensory abnormalities, and behaviors.

**METHODS:** This study was a systematic review. Included literature focused on children with ASD ranging from 0 to 22 years old. Literature must have included at least two of the pre-established elements of IU, anxiety, sensory abnormalities, and RRBs. In total, 173 articles were found. Literature was included from around the world, between the years 2000-2022, utilizing the databases PubMed, CINAHL, and MU OneSearch.

**RESULTS:** A total of 60 articles met the inclusion criteria. The main finding concluded that IU, anxiety, and sensory abnormalities were all related to maladaptive, restricted, and repetitive behaviors exhibited by children diagnosed with ASD.

**DISCUSSION:** This study supports the idea that the elements of IU, anxiety, and sensory abnormalities are interrelated and influence behaviors, thus influencing the approach to therapy and interventions for children diagnosed with ASD. By addressing the antecedents to behavior in occupational therapy interventions, clinicians can decrease the effects these behaviors have on the daily life of children with ASD. More research is needed on these relationships to further inform practice.

11:15 - 11:30 a.m.

### Participation patterns in leisure activities of families with a child with autism

**Author:** Ryan Kesler Norton

**Mentor:** Amy Haynes, OTD, OTR/L, ASDCS

**BACKGROUND:** Leisure activities can increase quality of life in children with autism because they help develop social skills, sensory needs, and independence. Therefore, the purpose of this study is to explore the participation patterns, barriers, and quality of life (QOL) of family units during leisure activities with a child on the autism spectrum.

**METHODS:** This is a cross-sectional, survey-based study identifying barriers that affect leisure participation for families with a child with autism. Participants were included if they had a child 4-12 yrs. old with autism, reside in NC, were the primary care giver for the child, and

were within a family unit that participates in leisure. Participants were excluded if their child had other intellectual or physical disabilities hindering leisure. Descriptive statistics were used to measure leisure participation and outcomes over a four-month period.

**RESULTS:** A total of 22 participants started the survey with a 45% completion rate. All remaining participants ( $n=10$ ) reported that they participate in leisure activities including environments that are inside at home, inside in the community, outside at home, and outside in the community. The qualitative data showed that 77% of participants' leisure activities help them stay healthy.

**DISCUSSION:** The data collected from this study will increase the evidence of participation patterns in leisure of children with autism to bring awareness to the importance of leisure on quality of life. Future research in this area should aim for larger sample sizes and more in-depth factors related to environmental, family, and child factors.



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 12:45 - 1 p.m.
 

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### Perspective of parents, caregivers, and early childhood educators on strategies for independence in toileting

**Authors:** Madison Pyle & Keri Helton

**Mentor:** Meredith Gronski, OTD, OTR/L, CLA, FAOTA

**BACKGROUND:** Toileting is an important developmental milestone for children to reach, but there is a gap in research amongst toilet training. This can cause a delay in development and caregiver burden. The purpose of this study is to explore the variation of successful and unsuccessful toilet training techniques from the perspective of parents, caregivers, and early childhood educators.

**METHODS:** This is a descriptive, survey-based study design that measures quantitative data. Survey participants were recruited via word of mouth. Surveys consisted of a brief demographic component, barriers to toilet training, environmental barriers, and the resources used to guide the toilet training process.

**RESULTS:** This quantitative study consisted of 141 participants. The age of initiation for toilet training indicated the majority at 21-31 months. Positive reinforcement and a child sized toilet or insert were the two most commonly utilized techniques across all three surveys. The most common challenging behaviors seen amongst all participant groups were stool refusal and frequent accidents. The most accessed method of outreach for caregivers was internet-based. Early childhood educators reported using prior experience and advice from co-workers.

**DISCUSSION:** This study supports the consultative role occupational therapy practitioners can have in promotion and intervention within early childhood settings to support developmental success in the toilet training process. Future research with a larger, more diverse sample including more early childhood educators is needed to further explore the role of occupational therapists in collaboration with early childhood educators.

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 1 - 1:15 p.m.
 

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### Early childhood environments that support movement, self-regulation, and learning

**Author:** Anna Rose Sink

**Mentor:** Meredith Gronski, OTD, OTR/L, CLA, FAOTA

**BACKGROUND:** This study examined the relationship between outdoor environmental affordances, physical activity, self-regulation, and executive functioning skills in relation to kindergarten readiness in preschool-aged children. Research shows that there is an increase in physical activity when the activity occurs in an outdoor environment. Children that do not meet the standard recommended physical activity could potentially experience lasting effects on their overall health, cognitive function, and development.

**METHODS:** A convenience sample of preschoolers was recruited via word of mouth, flyers, and emails. Activity counts were measured using an Actigraph accelerometer over the span of four hours a day on three separate days. Researchers completed an environmental assessment of each preschool included in this study and administered self-regulation

assessments to each participant at the end of the two-week trial. A parent packet was sent home to gather demographic and executive functioning data.

**RESULTS:** Participants (n=12) in this observational, descriptive study were preschool-aged ranging from 28 to 64 months (M= 53.67, SD= 11.35). The results were analyzed using descriptive statistics and Pearson R correlation coefficients to see if the preschool environment and physical activity affected the scores of the self-regulation and executive functioning tasks.

**DISCUSSION:** This study does support the role of occupational therapists in early childhood programs to support outdoor physical activity use as a facilitator for appropriate development and learning in preschool-aged children. Further research with a larger, more heterogeneous sample is needed to further explore the effects of outdoor physical activity on self-regulation and executive functioning skills for kindergarten readiness.

1:15 - 1:30 p.m.

**Examining the impact of sensory processing patterns on reading enjoyment and participation in early elementary students**

**Author:** Kimberly Stewart

**Mentor:** Meredith Gronski, OTD, OTR/L, CLA, FAOTA

**BACKGROUND:** A gap in research exists for specifically examining sensory processing in association with common occupations such as reading. The aim of this study was to gather evidence of correlations between individual sensory processing patterns and engagement in reading occupations.

**METHODS:** This study was descriptive and correlational. Participants were recruited via a combination of convenience sampling and snowball sampling. Inclusion criteria for participants were that they had to be in 1st, 2nd, or 3rd grade and primarily speak English. Exclusion criteria was the presence of severe visual or intellectual

disorders. The researchers met with the participants and their parents and asked the parents to fill out the Short Sensory Profile (SSP), while the children were interviewed using the Inventory of Reading Occupations- Pediatric version (IRO-Pedi). Once collected, data were analyzed using Microsoft Excel and Spearman's correlation coefficients to identify relationships among variables.

**RESULTS:** The study sample included six elementary students of which four were in the 1st grade and two were in the 2nd grade. According to Spearman's correlation coefficients, there were no strong correlations between the SSP scores and the IRO-Pedi scores. Therefore, sensory processing patterns do not have an impact on reading participation and enjoyment based on this sample alone.

**DISCUSSION:** The main takeaway from this study is that sensory processing patterns may not have a strong correlation with engagement in and enjoyment of reading. Future studies should focus on children with evident sensory processing difficulties or tendencies and relate those patterns to their engagement in reading.

1:30 - 1:45 p.m.

**Perceptions of the neonatal intensive care unit environment on co-occupation participation: a mixed methods study**

**Authors:** Morgan Armstrong, Morgan Ewing, & Beth Romanowski

**Mentor:** Charlotte Navarro, OTD, OTR/L

**BACKGROUND:** Environmental factors of the NICU combined with medical fragility of the infants can lead to decreased interactions between infants and their caregivers. The purpose of this study is to investigate and compare the perceptions of co-occupation engagement in the NICU held by caregivers and staff members.

**METHODS:** This is a descriptive, survey-based study design distributed via social media and word of mouth. Specific inclusion and exclusion criteria were given to both NICU staff and caregivers. The survey focused on the perceptions of involvement in co-occupations within the NICU from both the caregivers' and staffs' point of view. Quantitative

and qualitative responses were analyzed using a Mann-Whitney U test to determine commonalities between the caregivers and staff's perceptions.

**RESULTS:** Most caregiver participants felt they understood how they could interact with their infant in the NICU. However, NICU staff members are less likely to report that caregivers had an accurate understanding. Similar results were reported for whether the NICU environment was found to be overwhelming by the caregivers. The results for both categories were found to be significant.

**DISCUSSION:** Results support a disconnect regarding perceptions of co-occupations between staff members and caregivers. It is important to consider the perceptions reported in this study and use them to guide OT practice. Future studies should look at the correlation of hours caregivers spend participating in co-occupations and satisfaction with their NICU experience.





1:45 - 2 p.m.

## The effect of dyspareunia and vulvodynia on sexual participation and intimacy: from an occupational therapy perspective

**Author:** Marichris Lacson

**Mentor:** Charlotte Navarro, OTD, OTR/L

**BACKGROUND:** With the rising role of OT in women's health and pelvic floor therapy, there is a lack of research on constructs beyond musculoskeletal intervention approach in treating dyspareunia and vulvodynia, such as the psychosocial consequences. The purpose of this study is to examine the effects of dyspareunia and vulvodynia on sexual participation and intimacy.

**METHODS:** This study is a survey-based, cross-sectional, mixed methods design to compare sexual participation and intimacy in a sample of individuals (N=59) with and without dyspareunia and vulvodynia. The survey questions were derived from the Occupational Performance Inventory of Sexuality and Intimacy (OPISI) and were distributed on QuestionPro. Participants were recruited through

convenience, purposive, and word-of-mouth sampling. Participants were included if: (i) assigned female, (ii) ages 21 and 40, (iii) at least 1 sexual partner, (iv) self-reported or clinical diagnosis of dyspareunia/vulvodynia, and (v) read and understand English. Participants were excluded if: (i) pregnant, (ii) <1 year since birth, (iii) cognitive dysfunction, (iv) asexual, and (v) intersex or currently undergoing transitional surgeries. Non-parametric statistics were used for comparisons.

**RESULTS:** In this study, we found that individuals who experience dyspareunia and vulvodynia also had limited participation (58.62%), decreased pleasure (87.93%), increased anxiousness (70.69%), and decreased intimacy (60.34%) in significantly greater proportions than those without the conditions ( $p < 0.05$ ).

**DISCUSSION:** Findings indicate the need for interventions for dyspareunia and vulvodynia beyond a musculoskeletal approach and suggest incorporating a holistic approach with psychosocial components into treatment. Further research should focus on the efficacy of OT-specific interventions in treating dyspareunia and vulvodynia.







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