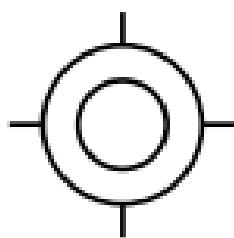


April 14-15, 2025

Eastern Washington University

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Poster #/Title

G#1/The Impact of SLP and Classroom Teacher Collaboration on Vocabulary Learning

GRADUATE STUDENT RESEARCH

Author(s): Thea Sherman

Faculty Mentor: Joseph Klein

Department: Communication Sciences and Disorders

Abstract:

This study explored the effectiveness of a collaborative teaching model between a Speech-Language Pathologist (SLP) and a classroom teacher in improving vocabulary comprehension among 6th and 7th grade students. Previous research has shown that collaborative models yield better vocabulary outcomes compared to traditional pull-out therapy methods, with SLPs contributing expertise in areas like semantics and phonology. This study assessed whether such collaboration enhanced the students' semantic knowledge of tier 3 social studies vocabulary. The study was conducted at a Pacific Northwest middle school, with 89, 6th and 7th grade students participating in a pre-test and post-test which involved 20 words and included questions about word meanings, syllable count, letter count, and phonemic awareness. A Wilcoxon signed-rank test was used to analyze the data. Results showed significant improvements across multiple measures: students demonstrated increased knowledge of word meanings ($p = .04$), provided more complete definitions ($p < .00001$), and showed enhanced phonemic understanding, such as the number of letters ($p = .01$), syllables ($p = .01$), and sounds ($p = .03$) in the words. The findings suggest that the collaboration between the SLP and classroom teacher positively impacted the students' vocabulary acquisition, with gains in both semantic knowledge and phonemic awareness. This improvement is attributed to the integration of SLP expertise within the classroom. These results underscore the value of collaborative teaching models in enhancing vocabulary and language skills for students with diverse learning needs, aligning with the American Speech-Language-Hearing Association (ASHA) guidelines.

Poster #/Title

UG#2/How Effective are Tongue Scrapers?

UNDERGRADUATE STUDENT RESEARCH

Author(s): Ashley Rosales De La Cruz, Rosemary Sanchez-Gonzalez, Everardo Silva, and Lizeth Tostado

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Halitosis, commonly known as bad breath, is a prevalent condition often associated with inadequate oral hygiene. A significant cause of halitosis is the production of volatile sulfur compounds (VSCs) by anaerobic bacteria that break down sulfur-containing amino acids (Choi, H.N., 2021). In developed countries, approximately 8–50% of the population experiences oral malodor (Choi, H.N., 2021). Through our research, we identified various aids used to remove the bacterial coating on the tongue. Several studies evaluated the effectiveness of tools such as manual toothbrushes, Waterpik replacement tongue scrapers, and tongue scrapers made of plastic, stainless steel, silicone, metal, or disposable materials, as well as electric tongue scrapers. Findings from these studies indicate that the combination of a tongue scraper with a manual toothbrush is the most effective method for reducing bacterial counts, thereby minimizing halitosis. However, it is important to note that the technique used with these tongue-cleaning aids is equally as crucial as the type of product selected.

Poster #/Title

G#3/ABI and AI: How Can Individuals with Acquired Brain Injury Use AI to Comprehend Humor

GRADUATE STUDENT RESEARCH

Author(s): Sikora Isabelle

Faculty Mentor: Heidi Iwashita

Department: Communication Sciences and Disorders

Abstract:

Individuals with an acquired brain injury (ABI) frequently experience significant challenges in social communication, including topic maintenance, interpreting abstract language, making inferences, and understanding humor. Humor comprehension requires a range of cognitive abilities, such as cognitive flexibility, interpreting social cues, utilizing theory of mind, and frame-shifting. Despite the complexity of humor, jokes often adhere to consistent structural patterns. This study aimed to explore the implementation of AI in enhancing humor comprehension through micro-prompting strategies to facilitate social interactions. The study sought to address two main questions: (1) How can individuals with ABI effectively utilize AI to enhance their comprehension of humor? (2) When prompted to develop self-management strategies for comprehending humor using AI, how will individuals with ABI perceive its effectiveness, and which strategies will be most helpful? A non-standardized survey was administered via SurveyMonkey to social media platforms and local ABI support groups, yielding responses from 10 participants. All participants were over 18 years of age, had experienced an ABI of varying severity (from mild to profound), and did not have a diagnosed condition that may impact their ability to comprehend humor, such as autism spectrum disorder. The survey results revealed a decline in joke comprehension as the complexity increased, though participants showed marked improvement in accurate interpretation after being given AI strategies. The majority of participants reported that AI strategies, particularly those targeting cognitive flexibility, were notably helpful, as these strategies facilitated efficient frame-shifting in humorous contexts. The implications of these findings suggest that AI strategies may be effectively incorporated into therapeutic interventions and further applied into real-world settings to assess their impact on social interactions, from the perspectives of the individual with ABI and their conversational partners.

Poster #/Title

G#4/Survey Analyzing Registered Nurses' Knowledge of SLP Scope of Practice in Brain Injury Rehabilitation

GRADUATE STUDENT RESEARCH

Author(s): Rileigh Maynard

Faculty Mentor: Heidi Iwashita

Department: Communication Sciences and Disorders

Abstract:

Individuals with a traumatic brain injury (TBI) may sustain many deficits including impairments in speech, cognition, and other neurological functions. Due to the complexity of the brain and the specialized care required, an interdisciplinary team is essential for optimal patient management. Speech language pathologists (SLPs) and Registered Nurses (RNs) are team members with important roles in the care of these patients. Previous research indicates a lack of understanding among healthcare team members regarding each other's scope of practice (SOP). The purpose of this study was to conduct a survey examining RNs' perceptions and knowledge of the SLPs' SOP and to identify potential areas for enhancing interprofessional education and communication. A 32-question survey was distributed through email and through a shared survey link. The survey included demographic questions as well as questions to test RNs' knowledge of SLPs' SOP, incorporating both Likert-scale subjective ratings and scenario-based knowledge questions. A total of four participants completed the survey. Survey data was analyzed and data visualizations were used to represent the data. The findings revealed that RNs have mixed perceptions of their understanding of the SLP's role in TBI care, and that their knowledge of the SOP does not align with their perceptions. Although this study was limited by low response rate, results from this preliminary study add to the growing literature supporting the importance of interdisciplinary communication and understanding of each other's SOP.

Poster #/Title

G#5/Impact of Self-Talk and Cueing on Step Rate in Recreational Runners: A Pilot Study

GRADUATE STUDENT RESEARCH

Author(s): Kathleen Frien, Maddison Ruther, and Faith Carlson

Faculty Mentor: Joel Sattgast

Department: Physical Therapy

Abstract:

Purpose/Hypothesis: An injury rate of 56-92% annually has been reported in recreational runners. Physical therapists are aptly positioned to mitigate risk and increase injury resiliency. This pilot study aimed to identify novel self-talk and cueing that would result in meaningful kinematic changes, specifically step rate, monitored via reliable, cost effective and clinically applicable data collection units.

Number of Subjects: 7 healthy adult volunteers (5 males, 2 females), averaging ≥ 15 miles p/week over the last 3 months without incurring a running related injury, were recruited and randomized into a control or experimental group.

Materials and Methods: After completion of screening examination, subjects completed a warm-up and acclimation period on a motor-driven treadmill, followed by 2 efforts of 5 minutes each at a self-selected pace to establish baseline values. For subjects in the experimental group, verbal and visual educational instruction was provided on self-talk and cueing. After 4 weeks, both training groups returned for re-assessment, during which time the experimental group utilized self-talk and cueing during data collection. Kinematics were collected with 7 Noraxon inertial measurement units (IMU) on the pelvis and lower limbs.

Results: When utilizing self-talk and cueing, experimental mean cadence improved by 2.99 ± 2.52 steps/min, representing a 1.812% increase, while the control mean cadence was -1.35 ± 3.19 steps/min, representing a 0.753% change. Experimental mean running speed increased by 0.131 ± 0.032 m/s while control mean running speed was -0.028 ± 0.092 m/s. An independent samples t-test compared mean values between experimental and control groups respectively ($t = 2.01$, $p = 0.049$; $t = 2.57$, $p = 0.098$). Statistical analysis was performed utilizing SAS Enterprise Guide 8.4 (SAS Institute Inc., Cary, NC).

Conclusions: These Findings provide initial evidence supporting the use of self-talk and cueing to positively impact step rate. Combined with IMU assessment, this intervention and assessment may provide an efficient strategy to improve step rate and track kinematic data within a translational clinical environment.

Poster #/Title

G#6/Barriers to Postpartum Women Receiving Pelvic Floor Therapy

GRADUATE STUDENT RESEARCH

Author(s): Alyssa Larson and Shannon Gillespie

Faculty Mentor: Alexandra Myers

Department: Occupational Therapy

Abstract:

Pelvic floor dysfunction (PFD) after childbirth is a common concern due to the increased force that is placed on the pelvic floor muscles by the fetus during pregnancy and the birthing process. Pelvic floor (PF) therapists are skilled professionals, varying in professional training, including occupational therapy. PF therapists provide individualized treatment plans to all genders and individuals across the lifespan who are experiencing PFD. Through a search of the literature, a gap regarding the postpartum population receiving PF therapy was present. This scoping review explored the barriers to postpartum women receiving pelvic floor therapy. A structured search using search terms of four databases: CINAHL, PubMed, Medline, and AJOT was conducted. Seven articles were selected and reviewed, ranging from level I to level VI, according to the Rating System for the Hierarchy of Evidence from Ackley et al. (2008). Due to a lack of literature on pelvic floor therapy and the postpartum population, our search was expanded to include barriers to postpartum women receiving mental health services and Ob/GYN postpartum care to fill this gap.

These barriers were analyzed and categorized into nine themes: lack of knowledge; lack of referral initiation/completion; low appointment availability; time; prioritization of self; lack of client-centered care; healthcare policies; stigma; and demographic factors. The themes of time, prioritization of self, lack of knowledge, health care policies, and lack of client-centered care were seen most often.

The themes identified in this scoping review help identify areas of service delivery that can be improved to provide better care and reach more women during this stage of life. This research can serve as a foundation for further research and intervention development to improve PF therapy utilization. Occupational therapists are uniquely equipped to address postpartum women's needs across various aspects of life and play a crucial role in addressing PFD among postpartum women and should be a member of the postpartum multidisciplinary team (Pollari, 2022).

Keywords: Pelvic Floor Dysfunction, Pelvic Floor Therapy, Barriers, Postpartum Woman, Occupational Therapy

Poster #/Title

G#7/Confidence Level of AAC use in Acute Care: A survey, research barriers in providing AAC clinical services

GRADUATE STUDENT RESEARCH

Author(s): Sarah Le

Faculty Mentor: Lindsay Williams

Department: Communication Sciences and Disorders

Abstract:

Communication is a fundamental human right. However, patients in acute care settings face barriers to expressing their wants, needs, and discomfort. This study investigated the impact of the graduate curriculum, post-graduate continued education, and clinical experiences of current Speech-Language Pathologists (SLPs) perceived comfort and confidence levels in implementing Augmentative and Alternative Communication (AAC) in acute care settings. A survey was completed by thirteen practicing SLPs in acute care settings within the Inland Northwest. Participants completed a 20-question survey administered via Survey Monkey. Descriptive statistical methods were used to analyze the survey data. The research results revealed specific barriers SLPs encounter in acute settings that impact the use and implementation of AAC. Direct exposure and experiences during graduate education significantly demonstrated a positive correlation with perceived comfort and competence in AAC implementation post-graduation. This study provides insight into future directions to examine improvements that could prepare SLPs to support functional and effective communication in acute care settings. This research results will reveal the challenges SLPs face when providing AAC clinical services and the incidence of AAC use in acute care settings.

Poster #/Title

UG#8/The Effects of Silver Diamine Fluoride on Overall Health and Quality of Life in Different Populations

UNDERGRADUATE STUDENT RESEARCH

Author(s): Daisy Saldana-Martinez, Jennifer Mendoza, Dianna Shirshin, and Yacine Dieng

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Silver Diamine Fluoride is a minimally invasive, cost-effective dental caries treatment. Silver diamine fluoride is gaining recognition across diverse patient populations, including pediatric, special needs, geriatric, and medically compromised individuals. Silver diamine fluoride is composed of silver, fluoride, and ammonia—used to effectively arrest carious lesions, reduce sensitivity, and improve quality of life. This research poster reviews the evidence in support of silver diamine fluoride’s efficacy in managing dental decay in vulnerable groups, such as individuals with special needs, older adults, children with behavioral challenges, and individuals with conditions such as Sjogren’s syndrome. Studies have consistently indicated that silver diamine fluoride enhances dental health while minimizing the discomfort of dental decay and the risks associated with traditional interventions. While further research is called for to assess silver diamine fluoride’s long-term effects, current findings suggest it offers a practical, safe, and effective alternative treatment for those who may struggle with the traditional more invasive procedures.

Poster #/Title

G#9/A Descriptive Analysis of Brain Injury Screeners and Suitability within the Unhoused Population

GRADUATE STUDENT RESEARCH

Author(s): Jack Larson

Faculty Mentor: Heidi Iwashita

Department: Communication Sciences and Disorders

Abstract:

This study aims to offer evidence-based guidance for professionals involved in screening and assessing unhoused individuals affected by acquired brain injury (ABI). The findings will inform best practice and enhance early detection. The research addresses three key questions: (1) Do the selected brain injury screeners have sufficient psychometric properties to accurately find the severity of ABI? (2) What do brain injury screeners consider when administering this population? (3) Which of the selected screeners are the most comprehensive and supply sufficient efficacy in screening brain injury that aligns with INCOG 2.0 guidelines. The study used a systematic literature review, gathering descriptive information from protocols, manuals, and publishers' websites. Screeners acquired for this review included: Ohio State University Traumatic Brain Injury Identification Method, HELPS screener, Brain Injury Screening Index, Brain Injury Screening Tool, Cognitive-Communication Checklist for Acquired Brain Injury, Neurobehavioral Symptom Inventory, and Brain Check Survey. An organized search of electronic databases (PubMed, Google Scholar, EBSCOhost) was conducted using specific search terms related to brain injury and screening tools. The analysis revealed many unique strengths that make each brain injury screener effective. Of the selected screeners, BISI and BIST were found to be the best options. They excel in accuracy, comprehensiveness, and flexibility. Both tools are versatile in administration and provide thorough assessments, making them ideal for screening brain injuries in diverse populations, including the unhoused. The review faced limitations such as restricted access to research studies evaluating all screeners, and insufficient information in some studies for a comprehensive evaluation. Effective brain injury screeners could improve resource allocation and planning in healthcare and social services by addressing both physical symptoms and environmental challenges. Reliable screeners can build trust and engagement between unhoused individuals and healthcare providers by accurately assessing their unique needs.

Poster #/Title

G#10/An Analysis of Informative Interviews of SSMP Participants' Perceived Benefits of Therapy

GRADUATE STUDENT RESEARCH

Author(s): Aryia Farnworth

Faculty Mentor: Joseph Klein

Department: Communication Sciences and Disorders

Abstract:

Originating at Eastern Washington University, the Successful Stuttering Management Program (SSMP) has been providing services to adolescents and adults who stutter for over 60 years. Each summer, the SSMP offers an intensive, residential therapy program where participants stay in on-campus dormitories. The primary goal of the SSMP is not to increase fluency but to give participants tools and strategies to effectively manage their stuttering. While limited research has been conducted on the program's effectiveness, this study represents the first qualitative analysis of SSMP participants. This study involved seven participants (five male, two female), who were interviewed via Zoom using nine open-ended questions about their SSMP experience. A thematic analysis was conducted, revealing four key themes and three subthemes. The main themes identified were: treatment motivation, personal development path, technical mastery process, and program structure and support. The study concluded that participants experienced a significant increase in self-acceptance. Notable strengths of the SSMP include fostering a sense of community, reducing avoidance behaviors, and enhancing participants' attitudes toward their stuttering.

Poster #/Title

G#11/Circadian Rhythmicity in Activity Levels After Acute Stroke: A Cosinor Analysis

GRADUATE STUDENT RESEARCH

Author(s): Connor Clark

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Circadian rhythmicity can be estimated using actigraphy (wearable activity monitors). Despite reports of circadian misalignment post-stroke, no studies have used actigraphy to describe circadian rhythmicity of motor activity in this population. This study aimed to describe and compare circadian rhythmicity of motor activity over time in patients post-stroke attending an inpatient rehabilitation facility (IRF). Seventeen subjects (aged 71.76 ± 14.28 years; 13.23 ± 5.85 days since stroke) admitted to an IRF participated. Subjects wore a wrist-worn actigraph continuously for 11 days. Motor activity was measured in 1-minute epoch activity counts (Philips Respironics, Actiware 6.3), averaged into 5-minute bins. Non-linear mixed-effects cosinor regression analyses (SAS, 9.4) were used to compare endogenous circadian rhythms of activity at baseline (BL; 48 hours following the adaptation day) and discharge (DC; final two study days). Cosinor analysis confirmed significant 24-hour circadian rhythmicity in activity at both BL ($p < 0.001$) and DC ($p < 0.001$). The amplitude of the 24-hour rhythm increased from 54.37 (± 1.52) at BL to 65.96 (± 1.62) at DC ($p < 0.001$), and the mesor increased from 106.77 (± 1.08) at BL to 121.59 (± 1.14) at DC ($p < 0.001$). The acrophase (peak activity) occurred at 13:17 (± 6 min) at BL and 13:21 (± 6 min) at DC, with no significant difference ($p = 0.66$). These findings demonstrate a significant 24-hour rhythm in motor activity post-stroke, with peak activity occurring shortly after 13:00 at both time points. The increase in amplitude and mesor suggests greater overall motor activity at discharge, likely reflecting motor recovery. Future research should determine the extent of circadian misalignment in stroke patients and its impact on functional outcomes.

Poster #/Title

G#12/Developing a Mindfulness Breathing Tool for a Military Horsemanship Program

GRADUATE STUDENT RESEARCH

Author(s): Cortney Hunt, Jessica Mendoza, Morgan Davis, and Erika Jorren

Faculty Mentor: DeAnn Pell

Department: Occupational Therapy

Abstract:

Abstract

Military horsemanship programs can positively impact the veteran population by promoting engagement, reducing stress, and enhancing social participation. The interaction between a participant (veteran) and a horse is a critical component of the therapeutic process in such programs. Following their service veterans can experience stress, anxiety, and symptoms of Post-Traumatic Stress Disorder (PTSD). Experiencing anxiety or stress during the programs can decrease engagement between the horse and the participant and disrupt the therapeutic process. It is critical to promote the management of these emotions to increase the successful engagement between horse and the participant. A community engaged project was conducted by capstone students within a Master of Occupational Therapy program in collaboration with a Spokane Washington-based therapeutic riding organization called Free Rein. A literature review was completed with the following themes found: reduction in PTSD symptoms, increase in well-being and quality of life, emotional exchange between humans and horses, and breathing techniques. A logic model and needs assessment were completed through field visits, informal interviews and observation of the horsemanship program. Based on the current literature, field visits, and stakeholder comments, it was determined that a mindfulness breathing tool would increase the therapeutic process within the military horsemanship program and offer support to those working with Free Rein participants. A vinyl poster depicting the mindfulness breathing technique was created. A PowerPoint presentation including what the mindfulness tool is, why it is used, and how to use it, was presented to the Free Rein stakeholders.

Keywords: occupational therapy, veterans, military horsemanship programs, mindfulness breathing.

Poster #/Title

G#13/Untangling Tongue Ties: A Literature Review

GRADUATE STUDENT RESEARCH

Author(s): Gabrielle Joyce

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

Ankyloglossia, or tongue-tie, is a congenital condition characterized by a short, restrictive lingual frenulum that limits tongue mobility. This condition has been associated with functional difficulties, including challenges in breastfeeding, speech articulation, and sleep. Surgical interventions such as frenotomy, frenuloplasty, and frenectomy are commonly used to address tongue-tie, yet clinical decision-making regarding the need for surgical intervention varies among health care professionals. Speech-language pathologists (SLPs), pediatricians, pediatric dentists, otolaryngologists (ENTs), and lactation consultants (LCs) are professionals that deal with tongue-ties, but there are significant inconsistencies in how they assess, define, and recommend treatment.

This literature review examined how factors such as terminology, definitions, and functional difficulties influence clinical decision-making across these disciplines. A systematic search of the top two journals from each field, except pediatric dentistry (where the first and third journals were selected due to accessibility), yielded 4,859 articles. After filtering for peer-reviewed publications from 2014 to 2024, applying inclusion criteria, and removing duplicates, 32 articles were selected for analysis.

The findings of this review demonstrate substantial variability in how tongue-ties are conceptualized and managed. While all professionals acknowledge the condition's impact on tongue mobility, differences in diagnostic criteria, functional concerns prioritized, and indications for surgical intervention are observed. The lack of standardized guidelines results in inconsistent recommendations, leading to confusion for patients and caregivers. Parents may receive conflicting opinions from different specialists, complicating their ability to make informed medical decisions. This highlights the need for interdisciplinary collaboration to develop evidence-based, standardized guidelines for assessing and treating tongue-ties. Establishing a consensus would help ensure that patients receive consistent, high-quality care, reducing both overtreatment and undertreatment risks.

Poster #/Title

UG#14/Charcoal vs. Baking Soda as Whitening Agents (A study on efficacy)

UNDERGRADUATE STUDENT RESEARCH

Author(s): Mayah Eberhardt, Elisa Garcia, Lauren Mantle, and Kylee Endicott

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Statement of the Problem: Patients want to find a safe and effective whitening agent that can be found over-the-counter. Finding affordable and accessible whitening agents for all populations.

Intervention: The use of charcoal or baking soda in toothpaste for daily or weekly use in the dental hygiene routine to help create whiter teeth and remove stains.

Comparison/Control: Determining which agent is appropriate for patients as an individual based on their needs. Comparing charcoal and baking soda as an ingredient in over-the-counter toothpastes to recommend the safest and most effective whitening agent. Patients often use products seen online that are marketed as effective whitening agents despite lacking research for safety and efficacy.

The expected outcome for these products is whiter teeth and minimal side effects. Ultimately, the expected outcome is to remove stains and create whiter teeth based on the patient's desire.

Problem Statement: Does charcoal or baking soda in toothpaste better help patients with stain removal and safe whitening?

Whitening products can be abrasive and have adverse effects. Based on research, which whitening products are more effective and minimize adverse effects?

Poster #/Title

G#15/Artificial Intelligence in Upper Extremity Neurorehabilitation: A Scoping Review

GRADUATE STUDENT RESEARCH

Author(s): Christian Miller

Faculty Mentor: Dane Vulcan

Department: Occupational Therapy

Abstract:

Background: Artificial intelligence (AI) is a rapidly evolving technology that is being utilized in various industries, including healthcare. Healthcare practitioners are increasingly encountering AI-driven tools designed to enhance patient care, improve diagnostics, and optimize outcomes. Neurological disorders represent diverse, complex, and common diagnoses within healthcare, and more specifically, occupational therapy (OT) and rehabilitation that may greatly benefit from AI capabilities regarding assessment, prediction, and enhanced treatment planning.

Methods: This scoping review utilized the PRISMA-ScR to search relevant databases and complete article selection. To facilitate project completion and increase the likelihood of clinically significant results, the review was further refined to focused on upper extremity (UE) treatment. 17 articles were selected for review and analysis against four key considerations identified through a review of the literature: AI type, AI purpose, clinical readiness, and OT involvement.

Results: Most applications were in the experimental stage (n=7) or required further testing (n=6). OT involvement was minimal (n=3). AI was primarily used for assessment (n=11) and to a lesser extent to predict outcomes (n=4). Only one study focused on AI use during intervention. Common AI types included supervised machine learning (n=9) and deep learning (n=5).

Findings/Implications for OT: AI has the potential to enhance efficiency and efficacy of standardized assessments, monitor patient progress, provide risk assessments, and assist with direct interventions in neurorehabilitation. However, research remains in the early stages, and there is currently a lack of direct therapist involvement in development, which impacts the integration of AI into practice.

Poster #/Title

G#16/Nursing Students' Knowledge and Perceptions on the Field of Speech-Language Pathology:
A Survey

GRADUATE STUDENT RESEARCH

Author(s): Hailey Arland

Faculty Mentor: Lindsay Williams

Department: Communication Sciences and Disorders

Abstract:

Interprofessional collaboration (IPC) between nurses and speech-language pathologists (SLPs) is vital for improving patient care. However, nursing students may have limited knowledge of SLP roles, which can impact their ability to collaborate effectively in clinical settings. This study aimed to evaluate nursing students' understanding and perceptions of SLPs, comparing first- and second-year students and assessing whether personal or clinical exposure influences their knowledge.

A 23-question anonymous survey was distributed to nursing students at multiple colleges and universities in the Pacific Northwest. The survey included multiple-choice, true/false, open-ended, and rating-scale questions to assess familiarity with SLP roles, responsibilities, and practice settings. Quantitative data analysis compared responses between groups and examined the impact of personal and clinical interactions with SLPs.

Findings revealed that second-year nursing students demonstrated greater knowledge of SLP roles than first-year students. Second-year students correctly identified 71% of SLP responsibilities, compared to 66% for first-year students. In true/false questions, second-year students scored 96.4% accuracy, while first-year students scored 81.7%. Additionally, 71.4% of second-year students reported being somewhat or very familiar with SLPs, compared to 46.6% of first-year students.

Personal and clinical exposure to SLPs positively influenced knowledge levels. Students with prior experience—either personally or through clinical interactions—scored 81.5% on knowledge-based questions, compared to 76.1% for those without exposure. Despite this, 68% of students had little to no direct interaction with SLPs, highlighting a gap in interprofessional education (IPE).

These findings suggest that nursing curricula should enhance exposure to SLP roles through structured IPE initiatives. Increasing interprofessional collaboration opportunities in coursework and clinical placements could improve nursing students' understanding of SLPs, leading to better interdisciplinary teamwork and patient outcomes. Future research should explore strategies for integrating SLP education into nursing programs and assess the long-term benefits of IPC training.

Poster #/Title

G#17/Sleep Patterns and Functional Outcomes After Stroke or Brain Injury in Inpatient Rehabilitation

GRADUATE STUDENT RESEARCH

Author(s): Maria Valley

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Purpose: Sleep disturbances are common after stroke and brain injury (BI). In clinical practice, sleep assessments are often obtained through self-report mechanisms, yet these subjective methods are often inaccurate in patients with neurological insult. As such, the purpose of this study was to describe and compare sleep over time using an objective method of sleep assessment in patients attending an inpatient rehabilitation facility (IRF) after stroke or BI. A secondary purpose was to evaluate and compare rehabilitation progress in this population.

Number of Subjects: Twenty-eight subjects (mean age 64.39 ± 18.56 years, 13 female) admitted to an IRF after stroke ($n=22$) or BI ($n=6$) completed the study.

Methods: Sleep was assessed by a wrist actigraph worn continuously for 3 consecutive days after admission to the IRF. Actigraphy software (Philips Respironics, Actiware 6.3) was used to calculate: 1) daily total sleep duration (tSD) and daily total number of sleep/wake transitions (tSWT) from 2 consecutive 24-hour periods, and 2) nighttime sleep duration (nSD) and nighttime number of sleep/wake transitions (nSWT) from 3 consecutive nighttime periods (21:00-06:00). Cognitive and motor Functional Independence Measure (FIM) scores were measured near IRF admission and discharge to calculate a cognitive and motor Montebello Rehabilitation Factor Score (MRFS), producing a score between 0 and 1 as a measure of rehabilitation progress (1 = full rehabilitation potential reached). Independent t-tests, and repeated measures ANOVA were calculated using SPSS v29.

Results: On average, nSD was 369.77 min (± 145.83 min), and tSD was 633.77 min (± 270.83 min). The number of nSWT was 13.60 (± 6.60), and tSWT was 32.59 (± 10.67), with tSWT significantly higher in BI versus stroke, only on day 2 ($p < 0.05$). Groups did not differ significantly in tSD, tSWT, nSD, or nSWT over time. Motor MRFS scores were significantly higher in BI (0.63 ± 0.22) than stroke (0.40 ± 0.25).

Conclusions: Subjects post-stroke or BI slept for nearly 10 hours during the 24-hour period, with a large tSWT. Those with BI had more tSWT and better motor rehabilitation progress than those with stroke.

Poster #/Title

G#18/Healthcare Paraprofessionals' Skills and Collaboration with Speech-Language Pathologists on Traumatic Brain Injury: A Survey

GRADUATE STUDENT RESEARCH

Author(s): Abby Lorash

Faculty Mentor: Heidi Iwashita

Department: Communication Sciences and Disorders

Abstract:

Traumatic brain injury (TBI) is a complex condition that can impair cognition, memory, executive functioning, and communication. Individuals with TBIs often require rehabilitation services in hospitals and rehabilitation facilities, where healthcare paraprofessionals (HPPs) provide essential one-on-one care. Despite their critical role, HPPs frequently lack sufficient training in best care practices, including communication strategies, environmental adaptations, and swallowing techniques. Furthermore, collaboration between HPPs and speech-language pathologists (SLPs) is often inadequate, limiting the effectiveness of patient care.

This study aims to investigate HPPs' knowledge in TBI care and the extent of interdisciplinary collaboration with SLPs by conducting a survey. Results indicate that 57% of respondents do not feel confident in their training on TBI-related skills, and the same percentage report no collaboration with an SLP. Common barriers to training and collaboration include time constraints, resource limitations, and lack of organizational support. Additionally, many HPPs are unaware of techniques related to speech, language, communication, or swallowing for TBI patients. Respondents expressed a strong need for increased hands-on learning, mentorship, and specialized training opportunities.

Findings suggest that enhancing interdisciplinary collaboration between HPPs and SLPs could improve patient outcomes by equipping HPPs with the necessary skills to support rehabilitation efforts effectively. Addressing training deficiencies through education and fostering collaboration may lead to improved care for individuals with TBIs. Future research should explore the impact of HPP/SLP collaboration on patient progress.

Poster #/Title

G#19/School-Age Child Language Assessment Tools and Practices: A Survey of Speech-Language Pathologists

GRADUATE STUDENT RESEARCH

Author(s): Skylar Hickok

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

Assessing language disorders in school-age children is a critical responsibility of speech-language pathologists (SLPs), as accurate evaluations help guide appropriate intervention and support in academic settings. This study analyzed the assessment tools and practices used by SLPs who work with school-age children, as well as the challenges they face in conducting comprehensive language evaluations. A survey was distributed to practicing SLPs (N = 49) to gather information on the most used tools, preferred assessment methods, and limitations to best practices. Results indicated that SLPs most frequently used standardized tests were the Clinical Evaluation of Language Fundamentals [CELF], Comprehensive Assessment of Spoken Language [CASL], Peabody Picture Vocabulary Test [PPVT], Test of Language Development [TOLD], Expressive Vocabulary Test [EVT]). Other methods in assessment were informal observations, language sampling, and dynamic assessment. These approaches align with the American Speech-Language-Hearing Association's (ASHA) recommendations for a comprehensive language assessment. However, SLPs reported difficulties related to time constraints, evaluating English Language Learners (ELLs), and limited access to diverse assessment tools. Many participants also recognized a need for additional training in dynamic assessment, language sample analysis, and assessing bilingual students. These findings emphasize the need to utilize diverse assessment approaches, expand professional development opportunities, and enhance collaboration with educators to improve language evaluations for diverse student populations. Future research should focus on addressing these challenges to support more inclusive and effective assessment practices for school age children.

Poster #/Title

UG#20/Let's "Tox" About TMJ: The Effects of Botox and Occlusal Splints on TMD

UNDERGRADUATE STUDENT RESEARCH

Author(s): Grace Kim, Brittaney Anger, Abraham Alvarez, and Cassidy Voelker

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Temporomandibular disorder (TMD) is a chronic condition characterized by pain and dysfunction in the jaw muscles and joints, significantly impacting a person's ability to perform basic functions such as speaking, chewing, and opening the mouth. This can lead to nutritional deficiencies and psychological distress due to a diminished quality of life. Traditionally, occlusal guards have been the primary treatment for TMD; however, Botox injections have emerged as a popular alternative. The current study seeks to compare the efficacy of these two treatment modalities in patients who clench and grind their teeth. Specifically, the research explores whether Botox injections or occlusal guards provide better outcomes in improving TMD symptoms. A range of studies, including randomized controlled trials and retrospective analyses, were reviewed to assess the effectiveness of these treatments. The findings of this study aim to assist dental professionals in making evidence-based decisions and contribute to enhancing the quality of life for individuals affected by TMD.

Poster #/Title

G#21/Multisensory Strategies for People with Dementia

GRADUATE STUDENT RESEARCH

Author(s): Victoria Reagles, Grace McEachran, and Joseph Szekely

Faculty Mentor: Danielle DiLuzio

Department: Occupational Therapy

Abstract:

Dementia is a progressive condition marked by cognitive decline, affecting an individual's ability to perform daily activities. Despite this, current treatments are costly and have many side effects. With over 55 million people affected globally, there is a critical need for interventions that enhance quality of life. Some have theorized that Multisensory Stimulation Environments (MSSE) in combination with occupational therapy may improve quality of life and overall function. This review investigated the effectiveness of MSSE in improving quality of life, mood, behavior, and social interaction. A literature search was conducted across CINAHL, Medline, PubMed, TRIP, Google Scholar, and Scopus databases. Inclusion criteria included articles written within the past 15 years, measuring well-being and/or quality of life in individuals with dementia. Six studies met inclusion criteria, focusing on MSSE interventions with outcome measures related to quality of life and well-being. Evidence suggests that MSSE interventions can yield short-term improvements in mood, behavior, social interaction, communication, and psychological well-being. However, findings on motor function and cognitive processing improvements were inconsistent. The effectiveness of MSSE interventions varied depending on intervention structure, session frequency, and the stage of dementia. Interventions using MSSE offer promising, temporary benefits for individuals with dementia. Occupational therapists should apply clinical reasoning when selecting interventions, considering individual needs and the potential for short-term gains. Future research is needed to determine long-term impacts and optimize intervention protocols.

Poster #/Title

G#22/Examining Caregivers' Feelings and Experiences Regarding Pediatric Feeding Disorders and Services: A Survey

GRADUATE STUDENT RESEARCH

Author(s): Sara Burgess

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

This study surveyed caregivers feelings and experiences regarding pediatric feeding disorders (PFDs), general stress compared to mealtime stress, services received for PFDs, and barriers to accessing feeding services. Participants were 11 primary caregivers of children with a PFD between birth and three years of age. All participants received feeding services for their child. The most common stressors reported were child's refusal to eat, fear of inadequate nutrition, and gagging or choking incidents. Caregiver reports of experiencing stress "often/frequently" around mealtime increased by 50% compared to reports of general stress. Reported services received for feeding include speech language pathologists, physical therapists, occupational therapists, lactation specialists, dietitians, pediatricians, pulmonologists, gastroenterologists, and otolaryngologists. Despite some reporting easy access to services, all participants noted challenging experiences. Four major themes emerged from the qualitative analysis: cost and insurance challenges, gaps in medical care, access to therapy, and lack of social support. The results highlight the connection between caregiver stress and barriers to accessing pediatric feeding services, suggesting that service-related challenges exacerbate stress related to feeding difficulties. Addressing barriers to accessing services, including advocating for insurance coverage and expanding Telehealth options, may reduce caregiver stress and promote better feeding outcomes for children with PFDs. Improved support systems and clearer guidance for families navigating feeding interventions are essential for reducing caregiver burden and enhancing mealtime experiences. Future research should focus on how service accessibility influences caregiver well-being and the potential benefits of multidisciplinary collaboration in feeding interventions.

Poster #/Title

G#23/Development of an Application Method of Assessing Sleep and Sleep-Associated Outcomes for Rehabilitation Clinicians

GRADUATE STUDENT RESEARCH

Author(s): Johnathon Stephens

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Background:

There is a critical need to develop a method of sleep assessment (MSA) for rehabilitation clinicians to evaluate and monitor sleep and sleep-associated outcomes (pain, fatigue, and function) in patients with neurological disease. As such, this work aims to develop a clinical MSA for patients with neurological disease. The purpose of this poster is to present this work in progress, highlighting the MSA development.

Methods:

The MSA was developed via collaboration from a multidisciplinary team of researchers and health care providers, including members from physical therapy, nursing, sleep science, and software engineering. The multidisciplinary team identified valid, reliable markers of sleep and sleep-associated outcomes for inclusion in the MSA application ("app") through extensive literature review and analyses of existing research data pertaining to sleep, pain, fatigue, alertness, and functional outcomes in people with neurological disorders.

Results:

The first version of the MSA app development was completed in March of 2025. The app was titled Sleep, Pain, Fatigue, and Function (SPFF). The app contains various elements of sleep and sleep-associated outcomes, and permits their assessment multiple times each day to identify patterns in variables both across each day, and across time of day. The app includes sleep diary questions to quantify sleep duration and sleep efficiency; qualitative sleep questions to highlight the respondent's perception of sleep impairment; the Karolinska Sleepiness Scale, a valid and reliable measure of subjective sleepiness established by prior literature (Gillberg et al., 1994); a 3-minute version of the Psychomotor Vigilance Task (Grant et al., 2017), the gold standard measurement of objective fatigue (Antler et al., 2022); and visual analogue scales for assessment of pain, fatigue, and their interference with general function. An option to enter medication use and caffeine consumption was also included due to their profound effects on sleep and sleep-associated outcomes.

Summary and Future Direction:

A clinical MSA app was developed to quantify sleep and sleep-associated outcomes in neurological patient populations. Pilot testing of the app will first occur among a sample of healthy adults with valid

Poster #/Title

G#24/Successful Stuttering Management Program (SSMP): A Survey of Technique Learning, Desensitization, and Community

GRADUATE STUDENT RESEARCH

Author(s): Dylan Edgar

Faculty Mentor: Joe Klein

Department: Communication Sciences and Disorders

Abstract:

Stuttering is a complex communication disorder that involves different types of disruptions of the natural flow of speech. To effectively treat stuttering, clinicians must take a holistic approach and develop a plan to improve the client's ability to manage their stuttering and the potential negative thoughts and feelings that commonly associate with it. The Successful Stuttering Management Program (SSMP) is an intensive overnight stuttering therapy program that addresses these negative feelings directly along with managing stuttering with evidence-based modification techniques. The purpose of this study was to identify which aspects of the program was the most beneficial for past participants. The targeted aspects include learning of modification techniques, use of desensitization, and sense of community among participants. Twenty individuals completed a survey containing open and closed-ended questions regarding their experience. Results showed that the program's desensitization approach and sense of community provided the greatest benefit to improving participants' thoughts and feelings regarding their stutter. Open-ended survey responses highlighted the importance of confronting fears and receiving multi-faceted support from mixed-age participants, yielding greater long-term benefits and increased quality of life that led to more than half of participants choosing to return to the SSMP post-graduation.

Poster #/Title

UG#25/Treating perio like a PRO, a look into adjunct therapy with probiotics for periodontal patients

UNDERGRADUATE STUDENT RESEARCH

Author(s): Lizette Trejo-Bernal, Caitlin Todd, Madeline Sandifer, and Kassidy Hammell

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Periodontitis is a chronic inflammatory disease affecting the periodontium, leading to irreversible tissue destruction and significant oral health implications. While non-surgical periodontal therapy (NSPT) remains the primary treatment, adjunctive therapies such as probiotics have gained interest due to their potential to regulate the oral microbiome and reduce bacterial dysbiosis. This review examines the efficacy of probiotics as an adjunct to NSPT in managing periodontal disease. A synthesis of recent randomized clinical trials suggests that specific probiotic strains, including *Lactobacillus reuteri* and *Bifidobacterium animalis*, demonstrate antimicrobial activity, reducing pathogenic bacteria, plaque index, bleeding on probing, and pocket depth. Additionally, probiotics may contribute to decreasing antibiotic reliance, supporting efforts to mitigate global antibiotic resistance. However, while reductions in bacterial load and inflammation are observed, direct evidence of enhanced periodontal tissue healing remains inconclusive. Further research is required to standardize probiotic strains, dosages, and application methods to optimize clinical outcomes. The findings highlight the potential role of probiotics in periodontal therapy, emphasizing the necessity for individualized patient care strategies incorporating beneficial microorganisms. Future studies should aim to refine probiotic applications to enhance both oral and systemic health.

Poster #/Title

G#26/Benefits and Opportunities for Providing Nature-Based Therapies Across the Life-Span: A Collaborative Prospective

GRADUATE STUDENT RESEARCH

Author(s): Grace McDowell

Faculty Mentor: Heidi Iwashta

Department: Communication Sciences and Disorders

Abstract:

Nature-Based Therapy (NBT) encompasses multiple therapeutic approaches including animal-assisted, natural environmental, and horticultural therapy. Occupational therapy (OT), Speech-Language Pathology (SLP), and Horticulture Therapy, NBT, all have their origins as rehabilitative practices for soldiers returning from WW1 and 11. Although OT's have increasingly adopted NBT, its implementation within speech-language pathology remains limited. This qualitative study explored how SLPs can integrate NBT both collaboratively and independently by interviewing practitioners who implement NBT. Semi-structured interviews were conducted with 14 practitioners (9 OTs, 5 SLPs) geographically distributed across the United States. Data was analyzed using AI-assisted qualitative thematic analysis, revealing five main themes: Benefits, Implementation, Professional Considerations, Challenges, and Professional Development and sixteen sub-themes. Findings demonstrated that SLPs and OTs can effectively collaborate through the Regulatory-Communicative Framework, where OTs establish optimal sensory regulation upon which SLPs build communication interventions. Results also indicated that skills acquired in unpredictable natural environments showed enhanced generalization to structured settings, known as an Ecological Validity Gradient. The data further revealed the importance of an Environmental Adaptation Taxonomy approach when working with clients apprehensive in novel and non-controlled environments. Seven core therapeutic principles were identified that maintain effectiveness across age groups and professions: Environmental Affordance Utilization, Regulatory Support, Authentic Contextual Learning, Co-regulatory Relationships, Intrinsic Motivation, Sensory-Motor-Communication Integration, and Adaptable Challenge Gradients. These findings suggest NBT offers a viable, evidence-based approach for SLPs to expand therapeutic environments beyond traditional clinical settings, particularly benefiting neurodivergent clients. These findings support previous research on NBT and include a specified focus towards SLPs.

Keywords: nature-based therapy, speech-language pathology, occupational therapy, qualitative research, thematic analysis, neurodivergent, interprofessional collaboration

Poster #/Title

UG#27/Nursing Student Perceptions of a Virtual Escape Room as a Final Exam Review Activity

UNDERGRADUATE STUDENT RESEARCH

Author(s): Thomas Malzahn and Runar Camp

Faculty Mentor: Teresa Rangel

Department: Nursing

Abstract:

As technology advances, so do learning possibilities. Virtual reality (VR) experiences are being used in various training and scenario applications for the military, law enforcement and more to enhance learning. Our goal was to see if a VR escape room experience for nursing students' final examination review was preferred over traditional review methods. To create the VR escape room experience, a Microsoft OneNote link was provided containing healthcare-related scenario questions, arranged into themed "rooms" where a student must correctly answer the questions and enter the digital key to successfully "escape" each room.

For this project, VR escape room activities were designed and implemented as a final examination review for a nursing pharmacology class (n=39 students) and a health promotion in nursing class (n=35 students). Each activity was composed of ten rooms, titled and themed based on the major concepts being tested on the final. For example, themes in the pharmacology room included concepts such as perfusion, infection and medication safety whereas health promotion included exercise and nutritional health. This activity lasted approximately two hours and concluded with a survey asking students who participated how prepared they felt both before and after the escape room experience for their respective comprehensive exams.

In all, 36% (n=14) of students in the pharmacology class and 46% (n=16) of students in the health promotion class completed the survey. Approximately 40% of students who responded, reported feeling unprepared for their exams prior to the VR escape room whereas afterward, the percentage fell to 12%. Additionally, 73% of students agreed, "The escape room activity was a better review experience than traditional review methods for final exams".

This project highlights the potential of VR escape rooms as an innovative educational tool that can complement traditional teaching methods. By creating a dynamic, learning environment, VR escape rooms can enhance nursing students' application of pharmacology concepts, improve health promotion educational skills, and promote active learning. Future studies should explore the scalability of VR-based education in nursing curricula and its long-term impacts on clinical practice.

Poster #/Title

G#28/School-Age Child Speech Assessment Tools and Practices: A Survey of Speech-Language Pathologists

GRADUATE STUDENT RESEARCH

Author(s): Laura Davis

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

Speech-language pathologists (SLPs) play a critical role in identifying and addressing speech disorders in school-age children by using both formal and informal assessment methods to develop effective intervention plans. Best practices emphasize a comprehensive, evidence-based approach that considers cultural relevance, collaboration with educators and families, and the use of multiple assessment tools to ensure accurate diagnoses and appropriate treatment. This research featured an online survey to investigate the assessment tools and current best practices used by SLPs treating school-aged students for assessment of speech skills to adequately educate the future of the profession. Forty-nine SLPs completed the survey. The results indicate that the most preferred tools to assess child speech abilities was the Goldman-Fristoe Test of Articulation (GFTA). Respondents also reflected that other than formal articulations tests, the next most valued assessment practice was informal speech samples. Reliability, validity and time to administer assessments were important to SLPs. Assessment challenges included time constraints, limited access to tools, and assessing English Language Learners (ELLs). To conclude, as the demographics reflected a wide variety in locations of SLPs, and years of experience, there was still a clear choice in the most reliable and time efficient assessment tool, that being the GFTA. Separately, time constraints and challenges in assessing English Language Learners (ELLs) were major concerns, emphasizing the need for comprehensive evaluation methods to ensure best practices for all students. Best practices align with ASHA's guidelines, advocating for a balanced approach that integrates multiple assessment tools and clinical judgment. Moving forward, SLPs should prioritize continued education in assessment methods and practices to improved time management issues, and strategies for accurately assessing ELLs to enhance speech evaluations and intervention outcomes.

Poster #/Title

G#29/Pain interference, sleep quality and orthopedic physical therapy intervention after acute cardiac event

GRADUATE STUDENT RESEARCH

Author(s): Johanthon Stephens

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Purpose/Hypothesis: Pain and disturbed sleep are especially common among patients participating in outpatient cardiac rehabilitation (CR), often leading patients to seek orthopedic physical therapy (oPT). The purpose of this study was to determine whether there were differences between pain, sleep quality, and aerobic capacity between patients indicating utilization of oPT intervention (oPT-tx) versus those that did not in a sample of patients attending CR. A secondary aim was to determine whether pain and sleep quality were predictive of seeking oPT-tx.

Number of Subjects: One hundred patients 18 years and older (67.3 ± 9.8 years, 68 male) attending CR for an acute cardiac event completed the study.

Materials and Methods: Subjects completed all outcome measures at a single time point at CR admission. Pain from a non-cardiac origin was assessed by the Brief Pain Inventory, in which subjects indicated pain interference with various activities (0=does not interfere, 10=completely interferes) in the last week. Subjects reported interventions applied to reduce pain, categorized as interventions not oPT-related or interventions within the scope of orthopedic PT (oPT-tx), such as participation in oPT, application of modalities, or massage. Additionally, subjects completed the Pittsburgh Sleep Quality Index (PSQI) as a measure of sleep quality and the 6-minute walk test (6MWT) as a measure of aerobic capacity. Descriptive statistics, independent t tests, and logistic regression were conducted using SPSS v28.

Results: Overall, 71% of subjects reported the presence of pain from a non-cardiac origin and 39% of subjects reported utilizing oPT-tx. Subjects with oPT-tx reported significantly greater pain interference with mood, walking, work, enjoyment, and general activities ($p < .04$ for all). Additionally, subjects with oPT-tx had significantly worse PSQI scores (9.35 ± 3.55) than subjects without oPT-tx (7.56 ± 3.53 , $p = .048$) and performed significantly worse on the 6MWT ($p = .03$). Logistic regression indicated that the presence of non-cardiac pain ($X^2 = 19.78$, $p < .001$) and PSQI total score ($X^2 = 4.00$, $p = .045$) independently predicted whether subjects sought oPT-tx.

Conclusions: Subjects attending CR that also sought oPT-tx had higher pain interference with activity, poorer

Poster #/Title

G#30/Occupational Therapy & Adolescent Mental Health: A Scoping Review

GRADUATE STUDENT RESEARCH

Author(s): Kennedy Cox, Abby Gering, Vanessa Theumer, and Caleb Nelson

Faculty Mentor: Kaylynn Garrison

Department: Occupational Therapy

Abstract:

Research shows adolescents are facing an increase in mental health challenges due to evolving social, environmental, and cultural factors. These challenges can increase an adolescent's risk of experiencing symptoms associated with anxiety, depression, post-traumatic stress disorder, and other mental health related disorders. These diagnosis's can have a negative correlation with many adolescents' ability to participate in daily lives, specifically with their school and home environments. A scoping review was conducted to examine the existing literature on occupational therapy's role in adolescent mental health, identify gaps in research, and explore implications for occupational therapy in clinical practice. The Preferred Reporting Items for Systematic Reviews and Meta Analysis (PRISMA) framework was used to identify and analyze relevant literature. Articles published between 2015 and 2025 were included based on criteria such as peer review, full-text availability, English language, and relevance to occupational therapy and adolescent mental health. Searches were conducted in the following databases: CINAHL, APA Psych Info, MEDLINE, and Academic Search Complete. Key search terms were established, and triangulation was used to control for biases and improve the rigor of the review process. A thematic analysis was used to synthesize findings across different practice settings. Findings indicate that occupational therapists provide interventions in various settings and treatment tends to focus on emotional regulation, social participation, and an individual's ability to function in their daily life. This review highlights the unique approach to treatment occupational therapists offer as well as the benefits to increasing access to care for adolescents needing support related to mental health considerations.

Key words: occupational therapy, occupational therapist, mental health, mental illness, behavioral health, adolescent, intervention, treatment

Poster #/Title

G#31/Caregivers' Satisfaction with Early Intervention Programs and Language Growth in Children with Cochlear Implants: A Survey

GRADUATE STUDENT RESEARCH

Author(s): Makayla Higbee

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

Early intervention programs are essential for fostering language development in children with cochlear implants, with caregiver involvement playing a crucial role in maximizing outcomes. This study surveyed caregivers (N=13) of children with cochlear implants who had participated in early intervention for at least ten months. The goal was to assess caregiver satisfaction and examine the perceived impact of intervention on expressive vocabulary growth.

Results indicated that 70% of caregivers were very satisfied with their child's early intervention program, while 10% were satisfied and 20% were neither satisfied nor dissatisfied. Additionally, 70% strongly agreed that their child showed improvements in expressive vocabulary post-intervention, and 80% reported enhanced production of grammatical morphemes (e.g., plurals, past-tense-ed, and progressive-ing), as well as an increased ability to ask "why" and "how" questions. Open-ended responses highlighted the value of Auditory-Verbal Therapy (AVT), individualized communication strategies, and the importance of caregiver training and support. These findings align with previous research demonstrating that early intervention programs focusing on caregiver coaching and engagement contribute to improved language outcomes (Bavin et al., 2018; Des Jardin et al., 2008).

Caregivers reported that learning and implementing language strategies at home was beneficial, reinforcing the importance of collaboration between speech-language pathologists (SLPs) and families. These findings suggest that high-quality early intervention programs, particularly those incorporating AVT and individualized approaches, lead to increased caregiver confidence and improved language skills in children with cochlear implants. Future research should further explore how caregivers implement language strategies at home to optimize intervention outcomes.

Poster #/Title

UG#32/Babies, Bottles, & Bacteria

UNDERGRADUATE STUDENT RESEARCH

Author(s): Natalie Paulson, Kolbi Johnson, Elie Shipman, and Alma Muro

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Although early childhood caries (ECC) have decreased over the decades, a quarter of children nationally still get at least one cavity by the time they are 5.

Purpose: Determine what practices parents should avoid with their children to decrease their risk of caries. Simultaneously, establish beneficial habits that will help prevent future caries.

Method: a multitude of resources have been thoroughly researched, including systematic reviews and controlled clinical trials, to help identify common causes of ECC as well as preventative actions to promote oral health.

Results: Studies show that prolonged bottle usage and sharing saliva between parent and child can actually highly increase their chance of getting cavities. Additionally, education provided by dental professionals, routine dental visits starting at an early age, and fluoride application helps greatly reduce the likelihood of cavities.

Conclusion: Cavities are a multifactorial disease that can arise for many different reasons. Although there is not one ideal solution to eliminate them, they can be prevented by removing any potential pathways for bacteria to enter the mouth and getting rid of their ability to thrive in that environment. Not only does prevention require getting rid of harmful stimuli, but it also requires a consistent, thorough hygiene routine!

Poster #/Title

G#33/Survey of Preparedness of Speech-Language Pathologists to Assess Multilingual Learners with Acquired Brain Injury

GRADUATE STUDENT RESEARCH

Author(s): Ashley Miller

Faculty Mentor: Heidi Iwashita

Department: Communication Sciences and Disorders

Abstract:

Acquired Brain Injury (ABI) is prevalent across racial and ethnic groups, including multilingual learners (MLLs), with significant negative impacts. Speech-language pathologists (SLPs) face challenges when assessing MLLs with ABIs, requiring comprehensive evaluation and collaboration with families, care partners, interpreters, teachers, and other professionals. Previous research highlights concern regarding insufficient training for SLPs in assessing MLLs or individuals with ABI, leading to a lack of confidence, and yet little research has explored the intersection of these two areas. This study addresses the following research questions: 1) How do SLPs perceive their level of knowledge and preparedness for conducting assessments on MLLs with brain injury? 2) What assessment tools are utilized currently for assessing MLLs with brain injury in school and medical settings? 3) What are the main challenges SLPs face when assessing MLLs with brain injury across settings? 4) What are the perceived gaps in the existing assessment practices for MLLs with brain injury, as identified by SLPs? This study surveyed 27 certified adult medical or school-based SLPs who have the potential to work with MLLs and individuals with TBI or mTBI. Participants were recruited from Facebook groups and completed a 19-question survey via SurveyMonkey, which included sections on demographics, knowledge, and overall confidence. Survey results were analyzed through qualitative thematic analysis and statistical percentage analysis. The findings reveal that SLPs express more confidence in assessing clients with TBI or MLLs independently but lack confidence when these areas intersect. This suggests there may be inequities in the services provided to MLLs with brain injury. Lack of adequate resources and training contributes to these confidence gaps. To address these issues, the results suggest increasing access to assessment tools and creating new tests that accommodate diverse populations, such as MLLs with brain injury. Furthermore, results highlight the need for cultural humility training in assessment practices. Future research should focus on understanding the causes of low confidence in assessing MLLs with brain injury and explore how interpreter training can enhance assessment

Poster #/Title

G#34/A National Survey of the Presence of Trauma-Informed Care Curriculum in SLP Graduate Programs

GRADUATE STUDENT RESEARCH

Author(s): Madeline McKinney

Faculty Mentor: Lindsay Williams

Department: Communication Sciences and Disorders

Abstract:

The unfortunate reality is that hundreds of thousands of children across the nation are impacted by trauma every year. With the rising use of standard measures such as the ACES questionnaire, now more than ever we can analyze and quantify the impact of trauma experiences across the lifespan. Speech and language delays are significant, known areas of impact in children who have experienced trauma. However, while trauma-informed policies have grown in popularity across the fields of education and health care, speech pathology in the United States is still largely unequipped to engage with this population, even though many of us will frequently see these children on our caseloads. The purpose of this survey was to assess if Graduate speech pathology programs are currently incorporating trauma-informed care into existing curricula, or offering designated trauma-informed care courses. The results indicated no graduate-level speech pathology programs had designated curricula for trauma-informed care. Further discussion highlights the need for trauma-informed care education and policies within the field, as well as future directions for research.

Poster #/Title

G#35/Blue Light Therapy and Daytime Sleepiness after Neurological Insult

GRADUATE STUDENT RESEARCH

Author(s): Rachel Banken and Eli Eckelberg

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Sleep impairment and associated daytime fatigue are common following stroke or brain injury (BI). Literature indicates blue light therapy may stimulate centers of the brain that mediate arousal and alertness, yet the effects of blue light therapy on daytime fatigue remain unknown in patients post acute neurological insult. As such, the purpose of this study was to determine whether blue light therapy affected daytime fatigue and sleepiness in a sample of patients with acute stroke or BI attending an inpatient rehabilitation facility (IRF). A secondary analysis determined whether daytime fatigue and sleepiness changed over time, prior to administration of blue light therapy, in this sample. Fifty patients (mean age 65.5 ± 16.4 years, $n=28$ female) admitted to an IRF for stroke or BI were included in the study. Self-reported daytime fatigue and sleepiness were collected for 3-days prior to light exposure (baseline period). Nighttime (21:00-06:00) sleep duration and number of sleep/wake transitions were calculated during baseline via actigraphy. On Day 4, subjects were randomly assigned to receive exposure to either blue light (peak wavelength 478 nm) or red light (peak wavelength 629 nm) initiated daily between 08:00 and 08:15. After 7 days of light exposure, daytime fatigue and sleepiness were reassessed. Repeated measures ANOVA, and mixed ANOVA [time (baseline day 1 and post-test time points) x group (blue vs red light)] were conducted. There were no significant differences over time on any measures during baseline. In the mixed ANOVA, there was a significant interaction of time x group for the KSS ($F=5.03$, $p=0.03$) and a trend toward a significant interaction for the WPSS ($F=2.86$, $p<0.10$), in which sleepiness declined over time for the blue group, but not the red group. The interaction of time x group was not significant for the VAS ($F=0.38$, $p=0.54$). Exposure to morning blue light improved sleepiness on the KSS and WPSS, while exposure to morning red light did not.

Poster #/Title

G#36/Benefits of Dance Therapy for People with Parkinson's Diseases

GRADUATE STUDENT RESEARCH

Author(s): Lesley Arceo, Jenica Camacho, Adriana Garcia, Tanyr Gagnon, and Elena Kraemer

Faculty Mentor: Danielle Diluzio

Department: Occupational Therapy

Abstract:

Parkinson's Disorder (PD) is a common and debilitating dyskinetic diagnosis that is treated in a variety of settings, in a multitude of different ways. OT's role in PD treatment and, specifically, their role in occupational engagement/participation continues to grow and evolve with new research, one of which is dance-movement therapies. Databases such as EBSCOhost, Google Scholar, PubMed, and Eastern Washington University Libraries were utilized to gather peer-reviewed literature within the last ten years including a level of evidence between 2b and 3b. This literature review analyzed five articles from various scholarly sources and elicited results promoting the usage of dynamic movement/dance programs to benefit individuals within our focused population. Based on the collected results, the holistic benefits of these programs are apparent and profoundly impactful for the participants. Improvements in gross and fine motor functioning were clustered with additional cognitive and affective benefits as well. Feasibility and safety were factored into the analysis, with severity of symptoms and abilities taken into account. Further research should be conducted to investigate different stages of PD and the dynamic effects of disease progression. Additionally, various styles of dance therapies can be scrutinized to elicit additional or specific responses in this population.

Keywords: Parkinson's disease (PD), dance therapy, dance movements, therapeutic dance, quality of life (QOL)

Poster #/Title

G#37/Educators' Perceptions on the Communication Ability of Students with Speech & Language Disorders: A Survey

GRADUATE STUDENT RESEARCH

Author(s): Kaylie Pulliam

Faculty Mentor: Lesli Cleveland

Department: Communication Sciences and Disorders

Abstract:

Speech sound disorders (SSD) and developmental language disorders (DLD) are two of the most highly occurring communication disorders in an academic setting. SSDs can impact students' academics, as well as social-emotional development. DLDs can impact the student's ability to effectively communicate in the classroom. The purpose of this project was to examine educator perspectives on the communication abilities of students with SSDs and DLD. Specifically, educators' attitudes toward the communication abilities of their students with SSDs and/or DLD, educators' levels of knowledge on these disorders, and what educators want to better support these students in the classroom. Data was gathered using an electronic survey posted to various educator Facebook groups, including general education and special education. Results showed that seven out of ten educators felt their students with SSDs and/or DLD had difficulty with social interactions, eight educators indicated these students get frustrated or anxious due to their communication disorder, six educators knew where to gather more information on these disorders, and seven indicated they collaborate with speech-language pathologists (SLPs) to provide services and support for their students. Analysis of one open-ended question revealed educators want more professional development opportunities on these disorders, as well as more classroom resources and support. These results show an opportunity for SLPs to provide more in-service opportunities in the school setting, as well as a need for more collaboration between educators and SLPs.

Poster #/Title

UG#38/Lose Sleep, Lose Teeth

UNDERGRADUATE STUDENT RESEARCH

Author(s): Brianna Aguirre, Corina Ramirez-Vazquez, Camila Cruces Ramirez, and Fatima Marquez-Garcia

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

Sleep is an essential in order for humans in maintaining physical, mental, and emotional well being. The correlation between sleep quality and oral health was significant on the oral systemic link. This study explores the connection between sleep quality and oral health with a focus on how insufficient sleep may contribute to periodontal disease and tooth loss. The poster will demonstrate peer reviewed studies that have revealed sleep deprivation can exacerbate the conditions of the periodontium due to increased stress and immune dysfunction as well as inflammation. Studies including Indigenous Australians and Malaysians showed a bidirectional relationship with poor sleep quality and periodontal disease. As hygienists, our key role as clinicians is to educate patients and integrating sleep assessments into standard dental hygiene treatments may enhance oral health care as well as the patient's quality of life.

Poster #/Title

G#39/SPEAK OUT!® Intervention on Tongue Strength and Swallowing in Persons with PD

GRADUATE STUDENT RESEARCH

Author(s): Hailey Owen

Faculty Mentor: Lindsay Williams

Department: Communication Sciences and Disorders

Abstract:

Parkinson's Disease (PD) is a chronic and progressive neurodegenerative disorder that can negatively impact vocal intensity, tongue strength, and swallowing. While there is strong evidence to support that SPEAK OUT! intervention improves vocal intensity, there is little to no available literature to support that the intervention improves tongue strength and swallowing. The purpose of this study was to determine if there were improvements in maximal tongue strength, tongue strength used during swallowing, and perceived swallowing ability for persons with PD who completed SPEAK OUT! voice intervention. This study utilized a pre-post comparison design, and results were analyzed using paired t-tests. Three participants were recruited from Eastern Washington University's Speech & Language Clinic. The Iowa Oral Pressure Instrument was used to obtain tongue pressure measurements. The SWAL-QOL was used to measure the perception of swallowing ability. Additional materials included tongue bulbs and water for each participant. All three participants improved across measures collected post-intervention. Increases in maximal tongue strength overall were statistically significant (P-value 0.0170); increases in tongue strength used during swallowing overall were statistically significant (P-value 0.0073). Only one participant completed pre and post measures for swallowing perception (SWAL-QOL), improving from 139/220 to 155/220. These findings indicate that increases in maximal tongue strength and increases in tongue strength used during swallowing can be attributed to the intervention. However, while improvements in swallowing perception were observed for the single participant who completed pre-post measures, it is impossible to conclude that this intervention would increase the perception of one's swallow for all persons with PD. Two significant limitations of this study include its small sample size and lack of instrumentation. A possible future direction of this study would be to include objective swallow instrumentation such as a Modified Barium Swallow Study (MBSS) to assess changes in swallow function more objectively.

Poster #/Title

G#40/Investigating the attitudes and confidence of SLPs in assessing and treating ASL users: A survey

GRADUATE STUDENT RESEARCH

Author(s): Catherine Ahrendt

Faculty Mentor: Joe Klein

Department: Communication Sciences and Disorders

Abstract:

There are several evidence-based approaches to treating deaf and hard of hearing children, including oral speech, total communication, and sign language (Bergeron et al., 2020). However, there is little research showing how confident speech-language pathologists (SLPs) feel using American Sign Language (ASL) during therapy with clients who use ASL as a primary language. With the increase in research of language and fluency disorders that affect signed languages (Cripps et al., 2016; Cripps, 2018; Snyder, 2019; Kelley & McCann, 2021), it would be beneficial to research the attitudes of SLPs towards using ASL in assessment and therapy. The purpose of this survey is to investigate the attitudes and confidence of SLPs in assessing and treating individuals who use American Sign Language as a primary language. A survey was used to gather information from the participants and consisted of demographic questions, Likert-style questions, and yes/no questions. The demographic questions asked number of years practicing, knowledge of ASL, average caseload of Deaf clients per year, etc. The survey was distributed using Facebook groups for SLPs, other social media, and email lists. Inclusion criteria included being 18 years of age or older, being an ASHA certified SLP, and being currently employed as an SLP or was employed within the past 5 years. If the participants met the inclusion criteria, they were asked to complete the remainder of the survey. The survey took about five minutes to complete. There were 15 respondents to the survey. The results showed that a majority of respondents did not feel confident assessing or treating clients who use ASL. There were no significant differences between SLPs working in different settings. This study implies that SLPs do not feel confident treating clients who use ASL, which can be a barrier to access care for the Deaf population. Future research should identify the specific barriers to SLP's confidence in using ASL, and what resources can be made available to reduce those barriers.

Poster #/Title

G#41/Daily Fatigue, Sleepiness, and Pain Patterns in People with Amyotrophic Lateral Sclerosis and their Caregivers

GRADUATE STUDENT RESEARCH

Author(s): Kiley Suter

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Nonmotor symptoms in Amyotrophic Lateral Sclerosis (ALS) include drowsiness, sleep disruption, and pain. The extent of these symptoms in the caregivers of people with ALS remains unknown. This pilot study aimed to determine the extent and patterns of sleepiness, fatigue, and pain across time of day among people with ALS (pALS) and their caregivers (cALS).

Five pALS (62.2 ± 12.0 years, 33.2 ± 24.1 months since diagnosis) and their cALS (53.8 ± 20.9 years) participated in this study.

Measures of sleepiness, fatigue, and pain were assessed four times daily (8:00, 12:00, 18:30, and 20:30) for 7 consecutive days on an Android tablet. Sleepiness, fatigue, pain, and pain interference with activity were assessed on a 10cm visual analog scale (VAS). Sleepiness was also assessed by the Karolinska Sleepiness Scale (KSS). Descriptive statistics and mixed effects ANOVA (group x time) were conducted using SPSS v29.

Overall, mean (SD) sleepiness was 2.89 (0.79) for pALS and 3.74 (0.79) for cALS on the VAS, and 4.77 (0.68) for pALS and 4.85 (0.69) for cALS on the KSS. There was a significant interaction of group by time for both the VAS ($p=0.01$) and KSS ($p<0.001$) and a significant main effect of time ($p<0.001$ for both). Sleepiness peaked in the morning and late evening hours for cALS, and showed a similar, yet less pronounced fluctuation for pALS. Mean fatigue was 2.61 (1.02) for pALS and 3.83 (1.03) for cALS, and mean pain was 1.21 (0.95) for pALS and 1.59 (0.95) for cALS. There was a trend toward a significant group by time interaction for both fatigue and pain ($p=0.08$ for both), with similar patterns in fatigue and pain, as in sleepiness. Mean pain interference with activity was 1.01 (0.81) for pALS and 1.52 (0.81) for cALS, with a significant group by time interaction ($p<0.001$) and a significant main effect of time ($p=0.05$), in which pALS had higher levels of pain interference in the morning while cALS had higher levels of pain interference in the evening.

Sleepiness, fatigue, and pain were present in both pALS and cALS, and were mediated by time of day.

Poster #/Title

G#42/Psychosocial Interventions for Injured Workers with Musculoskeletal Disorders: A Scoping Review

GRADUATE STUDENT RESEARCH

Author(s): Lexi Gerten

Faculty Mentor: Dane Vulcan

Department: Occupational Therapy

Abstract:

Musculoskeletal disorders (MSDs) are a leading cause of work-related disability, often accompanied by psychosocial barriers that delay recovery and return to work (RTW). These barriers include physical, psychological, and social determinants and are frequently under-addressed in work rehabilitation, where treatment tends to prioritize physical function. Although psychosocial interventions are implemented across interdisciplinary care teams, their use within occupational therapy (OT) practice is variable and not well-defined. This scoping review addresses the need to identify and categorize the psychosocial interventions OTs could currently implement to optimize RTW outcomes for injured workers with MSDs. Following PRISMA-ScR guidelines, a structured search was conducted in CINAHL and MEDLINE (2000–2025) using controlled vocabulary and Boolean operators. Inclusion criteria encompassed peer-reviewed, full-text studies involving injured workers ≥ 18 years old with MSDs. Studies addressing neuromusculoskeletal or chronic non-specific pain or classified as low-level evidence were excluded. Of 122 records screened, 13 met inclusion criteria following title/abstract and full-text appraisal. Triangulation enhanced rigor during study selection. Data were charted and synthesized using thematic analysis. Six categories of psychosocial interventions were identified. Cognitive behavioral strategies—particularly those informed by CBT principles—were most prevalent. Additional categories included relaxation training, stress management, collaborative problem-solving, pain education, motivational interviewing, and social skills training. Reported outcomes were grouped into domains such as RTW, pain, physical function, quality of life, and disability. Findings clarify how OTs are addressing psychosocial barriers and underscore the importance of integrating holistic, evidence-informed strategies into rehabilitation practice.

Poster #/Title

UG#43/Acupuncture in the use of dental disorders

UNDERGRADUATE STUDENT RESEARCH

Author(s): JoLee Bunch, Whitnie Dutt, Shelby Munson, Kelsi Johnson, and Alexis Hanna

Faculty Mentor: Morgan Umlauf

Department: Dental Hygiene

Abstract:

The role and effectiveness of acupuncture is an alternative therapy in dental practice, emphasizing its potential applications in managing pain, anxiety, and various dental conditions. This review synthesizes present literature on the mechanisms, benefits, and clinical uses of acupuncture in dentistry, analyzing studies that highlight its impact on pain modulation, muscle relaxation, and patient comfort, particularly through neurophysiological pathways. Findings indicate that acupuncture significantly reduces dental anxiety and pain related to different dental procedures and is effective in managing temporomandibular joint disorders, myofacial pain, and other oral conditions. Evidence suggests that acupuncture stimulates endorphin release, reduces inflammation, and modulates sensory nerve function, thereby enhancing patient outcomes. Overall, acupuncture shows promise as a complementary therapy in dentistry, providing non-pharmacological benefits for pain and anxiety management. However, further research and standardized clinical protocols are necessary to fully integrate acupuncture into mainstream dental practice.

Poster #/Title

G#45/Sleep Predicts Pain, Fatigue, and Sleepiness in Amyotrophic Lateral Sclerosis: A Pilot Study

GRADUATE STUDENT RESEARCH

Author(s): Pauline Bowser, Elena Crooks, Kyanna Bren, Travis Vannice, and Riley Price

Faculty Mentor: Elena Crooks

Department: Physical Therapy

Abstract:

Purpose/hypothesis

It remains unknown whether, and to what extent, sleep predicts pain, fatigue, and alertness in people with ALS (pALS), within their home environment. This pilot study aimed to determine whether at-home sleep predicted pain, subjective fatigue, and alertness in pALS.

Number of subjects

Five pALS (62.2 ± 12.0 years, 33.2 ± 24.1 months since diagnosis, $n=4$ of 5 male) completed the study from their home environment.

Materials and Methods

Daily sleep duration and number of nighttime awakenings were measured for 7 consecutive days using an algorithm from combined outputs of a wrist actigraph (ActiGraph GT9X Link) and a self-reported sleep diary, as published elsewhere (Bren et al., 2024). Subjects reported pain, pain interference with activity, subjective fatigue, and sleepiness four times per day (8:00, 12:00, 18:30, and 20:30) on a 10 cm Visual Analog Scale (VAS), and completed a 3-min Psychomotor Vigilance Test (PVT) twice daily (08:00, 20:30). The PVT quantified alertness, an objective measure of fatigue, by calculating lapses in attention (reaction time ≥ 500 ms). Descriptive statistics and linear regression analyses were calculated with SPSS v29.

Results

In a linear regression model, increased sleep duration, but not number of nighttime awakenings, predicted reduction in pain ($R^2=0.20$, $B=-0.45$, $p=0.02$), pain interference ($R^2=0.24$, $B=-0.49$, $p<0.01$), fatigue ($R^2=0.16$, $B=-0.40$, $p=0.04$), and PVT lapses ($R^2=0.24$, $B=-0.49$, $p=0.01$). Sleep duration and number of nighttime awakenings each independently trended toward significance in predicting sleepiness ($R^2=0.11$, $B=-0.33$, $p=0.09$; $R^2=0.14$, $B=0.37$, $p=0.06$, respectively).

Conclusions

In this sample of pALS, pain, pain interference, fatigue, and alertness were predicted by sleep duration.

Clinical relevance

Findings underline the significance of sleep duration and its impact on pain perception and associated activity interference. Whether greater daytime sleep duration offsets the predictive value of nighttime sleep/wake transitions on pain and fatigue should be further explored. Physical therapists are experts in pain management and associated mobility impairment, and therefore, should inquire about the potential contribution of inadequate sleep on pain and fatigue in patients with ALS.

Poster #/Title

G#50/Healthy Hearts: Providing Resources to Acute Care Occupational Therapists

GRADUATE STUDENT RESEARCH

Author(s): Alexis Boglivi, Guadalupe Montes, Alyne Velasco, and Emily Wetherell

Faculty Mentor: Leanna McManus

Department: Occupational Therapy

Abstract:

Background: Distressing symptoms of cardiovascular disease leads to limitations in occupational performance. This can lead to feelings of hopelessness, powerlessness, social and role dysfunction, and increased hospital readmission rates. The primary step in preventing readmission is identifying those at high risk and implementing precautionary and preventive care. Precautionary and preventive care strategies require behavior change and lifestyle modification.

Methods: In collaboration with a local hospital, researchers completed a needs assessment and SWOT analysis to create a Logic Model. With the use of the Logic Model, researchers provided an informational presentation on the six pillars of Lifestyle Medicine in relation to the cardiac population and the provision of occupational therapy (OT) services. Upon completion of this presentation, the need for a treatment guide was established.

Results: While honoring the clinical reasoning of practicing clinicians, the best available evidence, and theory, a treatment guide for the provision of OT services for the adult cardiac population in the acute care setting was created.

Discussion: To properly create the guide, it was important to utilize OT conceptual practice models, health behavioral change theory, and evidence-based treatment strategies. This included the use of the Person-Environment-Occupation-Performance (PEOP), the Model of Human Occupation (MOHO), the Transtheoretical Model, and the concept of motivational interviewing (MI).

Conclusion: To respect the difficulties associated with behavior change and lifestyle modification, it is important to respect the person's perceived confidence and readiness for change. Given the scope of OT, occupational therapists are best suited to be the catalyst for this change.

Keywords: Cardiovascular disease, readmission rates, acute care, occupational therapy, Lifestyle Medicine, six pillars of health, behavior change, Person-Environmental-Occupation-Performance Model, Model of Human Occupation, Transtheoretical Model, motivational interviewing

Poster #/Title

G#51/OT's Role in Providing Self-Care Education and Training for Women Transitioning to Permanent Housing: A Community Engaged Project

GRADUATE STUDENT RESEARCH

Author(s): Katherine Ayerdis, Katie Lewis, Jillian McClure, and Paige Wilson

Faculty Mentor: Kaylynn Garrison

Department: Occupational Therapy

Abstract:

Women experiencing homelessness face challenges regarding engaging in self-care practices to support the transition to permanent housing. Self-care skills such as boundaries, daily routines, healthy habits, and health literacy, are integral for women transitioning from homelessness to permanent housing. A community engaged project was conducted by four Masters of Occupational Therapy students at Eastern Washington University, in collaboration with administrators at the local transitional housing facility in Spokane Washington working with homeless women. A Needs Assessment was done to guide the goals and outcomes of the educational curriculum created for the residents at the transitional housing facility. Through this Needs Assessment, and a review of the literature, an education curriculum focused on enhancing self-care skills for women transitioning out of homelessness. The educational curriculum consisted of seven group sessions to educate the residents on general self-care topics. The sessions include themes of health literacy, healthy boundaries, and self-care with interactive worksheets to guide learning. Through the lens of trauma informed care, the curriculum was designed to be nonlinear and flexible to accommodate the needs of all current and future residents. Based on the results of the project, occupational therapy's scope of practice is broad and includes the unique ability to address self-care practices. In turn, occupational therapists can provide education and resources that facilitate the development of healthy self-care practices for women experiencing homelessness.

Keywords: occupational therapy, occupational therapist, self-care, homelessness, educational curriculum

Poster #/Title

G#52/Pelvic Health in Older Adults: A Protocol for Evidence-Based Practice

GRADUATE STUDENT RESEARCH

Author(s): Dayla Dzingler, Rylee Gentner, Danielle Guinasso, and Ashley Hardy

Faculty Mentor: Leanna McManus

Department: Occupational Therapy

Abstract:

Purpose: To develop an evidence-based pelvic health protocol to be used by occupational and physical therapists in the outpatient setting to enhance pelvic health and quality of life in the older adult population.

Background: Due to urinary incontinence (UI) difficulties, the geriatric population can experience challenges with social isolation, psychological burden, quality of life, sexual and physical activity, fall risk, and increased admission to hospitals and nursing homes. When treating UI, conservative modalities such as education, biofeedback, and pelvic floor muscle training (PFMT) should be used first. The literature revealed five treatment themes: education, breathing, and exercises that include Kegels, core and glutes.

Methods: Researchers collaborated with the Director of Rehabilitation (DOR) at a local retirement community to develop a needs assessment, SWOT analysis, and logic model to drive program development of a protocol and supporting documents. To gather feedback for a protocol revision, a survey along with the final protocol and supporting documents were emailed to the DOR to be shared with the therapy staff.

Results: Researchers developed an eight-week protocol and three supporting documents: (a) instruction pamphlet for therapists on how to implement the protocol, (b) educational handout that included pelvic floor anatomy and diagrams, and (c) exercise handout. Upon receiving the survey feedback, edits were made to the protocol and three supporting documents.

Discussion: The final protocol design respected the following elements: (a) clinical reasoning and preferences of the DOR, (b) best available evidence when selecting exercises, and (c) the use of motor and errorless learning theories for provision of education and to guide exercise selection.

Implications: Occupational therapists can leverage their expertise in activity analysis, behavioral strategies, and client-centered practice to help individuals experiencing UI gain control over their daily routines to promote independence, social engagement, and overall quality of life. By integrating pelvic health interventions, occupational therapists can empower clients through education, exercise, and adaptive techniques that promote continence management and self-efficacy.

Poster #/Title

G#53/Self-regulation curriculums implemented by occupational therapy practitioners in a pediatric setting: A survey

GRADUATE STUDENT RESEARCH

Author(s): Kensi Nelson, Aubrie Bayley, Makenna Holz, and Richele Hash

Faculty Mentor: Danielle DiLuzio

Department: Occupational Therapy

Abstract:

The purpose of this study was to understand pediatric occupational therapists' perspectives on the use and effectiveness of self-regulation curriculums in practice. Researchers identified six prevalent self-regulation curriculums through the use of a content expert and review of literature: (1) Kelly Mahler's Interoception curriculum, (2) The Zones of Regulation®, (3) Play, Learn, and Enjoy!, (4), CoordiKids, (5) the STAR Institute sensory processing program, (6) The Alert Program®. A total of 45 occupational therapists completed a digital survey and numerical data received was analyzed using SurveyMonkey®. The majority of respondents to the survey were occupational therapists with 11+ years of experience working with pediatrics in the school setting. Results revealed that The Zones of Regulation®, The Alert Program® and Kelly Mahler's Interoception curriculum were the most used self-regulation curriculums and are most commonly used within the school setting. Data from the thematic analysis found various themes including practitioners used the curriculums, carryover of self-regulation curriculums, development of skills needed for self-regulation, and an other category.

Keywords: Occupational therapy, occupational therapy practitioner, pediatric, self-regulation curriculum, self-regulation, The Alert Program®, Kelly Mahler's Interoception curriculum, The Zones of Regulation®, Play, Learn, and Enjoy!, CoordiKids, the STAR Institute sensory processing program