Zeigler Research Forum 2025

College of Nursing and Health Sciences
May 7, 2025
8:00 AM – 12:15 PM

Grand Maple Ballroom & Livak Fireplace Lounge
Davis Center

Schedule of Events
Keynote Address
Research Incentive Grant Winner
Data Blitz Talks
Poster Presentations at a Glance
Poster Abstracts

Schedule of Events

8:00-8:45 a.m. – Breakfast and Poster Set-Up

8:45-9:45 a.m. – Opening Remarks and Keynote

9:45-11:00 a.m. – Poster Session

11:00-11:30 a.m. – Research Incentive Grant Winner

11:30-12:00 p.m. – Data Blitz Talks

12:00-12:15 p.m. – Awards and Closing Remarks

Keynote Address

SHAPING THE FUTURE THROUGH PEDIATRIC HEALTH AND MENTORSHIP RESEARCH

KEYNOTE SPEAKER: Dr. Leah Robinson

Leah Robinson, Ph.D.

Professor, Movement Science
School of Kinesiology
University of Michigan

Dr. Leah Robinson is a professor of Movement Science at the University of Michigan School of Kinesiology. She is director of the Child Movement, Activity, and Developmental Health Laboratory (CMAH) and Assistant Director of the Michigan Institute for Clinical Health Research (MICHR) KL2 Program.

Dr. Robinson's research agenda takes a developmental approach to three complementary areas: motor skill acquisition/coordination, physical activity, and developmental health in pediatric populations. She seeks to understand the underlying mechanisms of motor skill acquisition because these salient skills are needed to be physically active across the lifespan. Her work also explores the association of motor skills/coordination to health-related constructs and the effects of motor skill interventions on developmental and behavioral health outcomes. Overall, her research explores how motor skill interventions contribute to children's developmental trajectories.

Research Incentive Grant Winner

Kelsey Gleason, Sc.D., M.S.

Assistant Professor, Biomedical and Health Sciences

Revealing Connections: Understanding Drivers of Childhood Diarrheal Disease using Machine Learning

Data Blitz Talks

Biomedical and Health Sciences

Presenter: Daniel Peipert

Mechanisms of EAE modulation by intestinal colonization with Akkermansia muciniphila

Communication Sciences and Disorders

Presenter: Katie Ekström Grenon

Feasibility of Automatic Dialog Act Annotation: Adding an Interpersonal Dimension to Clinical Discourse Assessment

Nursing

Presenter: Natalie Ambrose

"Should I dig my hole? Or do I have a few weeks to dig it?": An Observational Study of Prognostic Communication in Tele-palliative Care

Rehabilitation and Movement Sciences

Presenter: Alyssa Smith

Integrative Health and Wellness Coaching: Bridging Research Gaps for Individuals with Intellectual and Developmental Disabilities

Posters at a Glance

Rehabilitation and Movement Science

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Biomedical and Health Sciences

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Communication Sciences and Disorders

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Data Blitz Posters

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Rehabilitation and Movement Science

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2	Severn, Emma J	Sexual Education for Neurodivergent Young Adults
3	Irvin, A. C., Darling, M., Farrell, J., Maynard, M.	Weaving a Web of Support: Exploring the Impacts of Love Your Brain Yoga Programming on the Health and Wellness of Burlington Housing Authority Residents
4	James, S.R.	Exploring the Impact of Adaptive Apparel on Quality of Life
5	Peterson, A. Gratton, J. Johnson, M. Maynard, M.	Expanding the Trauma Survivors Network at the University of Vermont Medical Center
6	Tobin, Molly; Rixon, Amy; Maynard, Margaret; Priganc, Victoria	Inclusive Recreation: Development of Resources for Supporting Athletes with Spinal Cord Injuries
7	Baranik, C; Parmalee, A; Maynard, M	Advocacy and Education on OT's Role in Palliative Care for Caregivers and Healthcare Professionals
8	Lillis, Mackenzie	Empowering Caregivers Through Occupational Therapy: The Benefit of Co-Regulation for Infants with NAS.
9	Lopez, Rachel; Clemmons, Laura; Priganc, Victoria	Enhancing Support for Neurodivergent College Students: An Occupational Therapy Approach in Student Accessibility Services
10	Meaghan A. Bannister, Sarah Sinnott, Margaret Maynard	Exploring Occupational Therapy's Role in Maternal Postpartum Support
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Rehabilitation and Movement Science

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14	Riecken, I; Webster, C; Priganc, V; Maynard, M	Rehab to Recreation: Bridging the Gap
15	Schatz, Kayla, M.	Community Needs Assessment for Informal Caregivers of People with Parkinson's Disease
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Biomedical and Health Sciences

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Nursing

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Communication Sciences and Disorders

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Data Blitz Posters

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Poster Abstracts

Rehabilitation and Movement Science

1. **Comparing The Effectiveness of The 'Think in Nerve Length and Layers' (TINLL) Approach to Traditional Treatment For Patients With Lateral Elbow Pain.** *Ferraro, E, E*
   Background: The Think in Nerve Length and Layers (TINLL) is a novel framework developed by Alison Taylor, CHT to treat lateral elbow pain. It addresses muscle imbalance, joint misalignment, and nerve tension in the upper extremity. The TINLL framework suggests that an overactive biceps causes an upward glide of the radial head, irritating the common extensor tendons and radial nerve. This prospective, quasi-experimental study compares the TINLL framework with traditional treatment for lateral elbow pain, evaluating changes in pain, function, and strength between groups.
   Methods: The intervention group receives TINLL treatment weekly for 4-6 weeks, and the control group receives treatment bi-weekly for 4 weeks. Participants may switch groups after 4 weeks. An A-priori power analysis indicated that 25 subjects per group was needed for 80% power. Participants will be recruited via convenience sampling from the UVMMC Orthopedic Rehabilitation Center. Therapists at the UVM hand therapy clinic will inform local providers about the study to encourage referrals. Inclusion criteria: understand English, age 18+, referral for lateral elbow pain or epicondylitis, and positive on at least one—lateral epicondyle tenderness, pain with wrist extensor stretch, or pain with resisted wrist/middle finger extension. Exclusion criteria: cognitive impairments, having a legally mandated reporter, surgical (pre/post), carpal or cubital tunnel, medial elbow pain, or prior PRP or PNT.
   Subjects are placed into either the TINLL intervention or control group. Participants with prior traditional treatment are placed in the intervention group; those without prior treatment are placed in the control group.
   Results/Conclusion: This ongoing study currently includes data from 18 TINLL subjects and 7 control subjects. Based on preliminary data collected so far, the TINLL study group has demonstrated a statistical significance for

the grip measurements and pain scores. This approach may offer a more efficient, cost-effective, and eco-friendly treatment for lateral elbow pain by reducing therapy sessions and healthcare burden.

2. **Sexual Education for Neurodivergent Young Adults.** *Severn, Emma, J*
   Background: Young neurodiverse adults want to pursue romantic relationships, yet research shows they do not receive comprehensive sexual education because professionals do not feel comfortable or qualified to teach (Krantz et al., 2016; Schmidt et al., 2021). Sexual education is in occupational therapy's (OT) scope of practice because sex is an activity of daily living (ADL), and maintaining intimate relationships is an instrumental activity of daily living (IADL). This Doctoral Capstone project aimed to improve sexual education quality for neurodiverse young adults by using a holistic, interprofessional, and neuro-affirmative occupational therapy approach.
   Methods: An occupational therapy student and a social worker taught five sexual education classes to Mansfield Hall students. Topics included OT's role in sexual education, sensory processing, executive functioning, emotional regulation, and identity. Student understanding was tracked using a pre-and post-survey. Sexual education handbooks were created and distributed to educators, OTs, parents, and caregivers to increase confidence in teaching these topics. One-on-one motivational interviewing (MI) sessions were provided to four students as an opportunity for specialized relationship support.
   Results: Results from pre- and post-surveys indicate the program increased students' knowledge in "understanding their sexual preferences" and "how to regulate emotions in a relationship." "How to set sexual boundaries", "initiate a relationship," and "build self-esteem" are areas for growth.
   Implications: Preliminary data is consistent with evidence from the literature that young neurodiverse adults require education in areas within OT's scope of practice (Krantz et al., 2016; Schmidt et al., 2021). Further research on a larger population is needed to examine the impact OT has on young neurodiverse adults' understanding of sexuality. Surveys must be accessible to the students to ensure education meets the health literacy level of the young neurodivergent adults. Further research is needed to determine the best evidence-based tool for tracking learning progress for this population.

3. **Weaving a Web of Support: Exploring the Impacts of Love Your Brain Yoga Programming on the Health and Wellness of Burlington Housing Authority Residents.** *Irvin, A, C., Darling, M., Farrell, J., Maynard, M.*
   Research indicates that individuals facing housing insecurity experience disproportionately negative health outcomes and are twice as likely to experience a head injury (Sutherland et al., 2021; Chan et al., 2022). Occupational therapists are well-equipped to create a more equitable society by increasing access to health and wellness opportunities and engagement with meaningful activities. Love Your Brain Yoga (LYB), an evidence-based program originally designed for individuals with traumatic brain injuries and their caregivers, has shown to have positive impacts on physical, mental, emotional and social health of participants (Donnelly et al., 2017, 2019, 2022). However, LYB has not been offered specifically to individuals living in subsidized housing. Therefore, this capstone project explored the implementation of LYB programming at Burlington Housing Authority (BHA), an organization that aims to provide safe, affordable housing access to individuals facing socioeconomic disparities. An eight-week LYB program was offered at two different BHA sites. Each LYB session was 1.5 hours and included guided breathwork, gentle movement with chair/mat options, meditation, and psychoeducation and discussion. Participants completed pre/post surveys. Several participants also completed semi-structured interviews both after 4 weeks and at the end of the program. Eight participants engaged in the classes. The mean rate of attendance was five classes out of the eight classes offered. Three participants attended 100% of the classes. Feedback from participants indicated benefits to physical health, such as improved balance, strength, and body-awareness. They also reported benefits to mental health, such as increased relaxation and self-compassion. Additionally, feedback indicated increased social health such as accessible opportunity for meaningful engagement, connection to community, and a decreased sense of loneliness. These benefits positively contributed to the participant's occupational performance, as indicated by reports of increased functional mobility, improved sleep, and increased confidence in social participation. Though there was a group of individuals that attended consistently (n=4), the overall attendance rate was low. Results indicate that LYB programming is beneficial to

participants, but further research is needed to understand barriers and facilitators to engagement in these classes for BHA residents.

4. **Exploring the Impact of Adaptive Apparel on Quality of Life.** *James, S.R.*
   Background: Over 1 billion people globally live with a disability (United Nations, 2024), and many experiences daily challenges with dressing (Hall, 2018; Mische Lawson et al., 2022). For many people with disabilities (PWD), lack of accessible apparel can be a barrier to meaningful participation in life (Farha, 2021; Hall, 2018; Kabel et al., 2016; Simmons et al., 2023). In response to this need, adaptive apparel is becoming more available to consumers.
   Objectives: This Occupational Therapy (OT) doctoral capstone experience (DCE) aimed to explore how representation in apparel impacts quality of life for PWD, and to design innovative solutions to promote occupational participation.
   Methods: To learn more about the needs of disabled athletes, 85 participants were surveyed through Burton Snowboards' non-profit adaptive athletic partner organizations. Adaptive garment samples were tested based on the 5F Framework for design to implement design changes. Qualitative data was gathered through interviews with participants and analyzed by OT capstone student researcher, and Burton research & development (R & D) mentor. The OT lens was applied to the R&D process by utilizing adaptive OT frameworks and universal design expertise.
   Results: Preliminary feedback from surveys indicates that most participants believe having access to the right kinds of adaptive apparel has a noticeable impact on their quality of life and the ability to participate in meaningful activities. Preliminary findings also suggest that most adaptive athletes face challenges finding the right apparel to meet their needs.
   Discussion: These findings suggest that adaptive apparel has a significant impact on the quality of life for PWD. Further research is recommended to understand the best practices in the adaptive design process, the emerging opportunities for OTs in the field of universal design, and the next steps in education for the apparel industry to foster the future of inclusive apparel.

5. **Expanding the Trauma Survivors Network at the University of Vermont Medical Center.** *Peterson, A. Gratton, J. Johnson, M. Maynard, M.*
   Objective: To expand the Trauma Survivors Network (TSN) at the University of Vermont Medical Center (UVMMC) and increase awareness of community resources available to trauma patients. Evidence suggests that providing peer visitation to individuals recovering from a traumatic event improves self-efficacy and helps individuals regain a sense of independence (Gassaway et al., 2017).
   Method: This Doctoral Capstone Project conducted with the trauma department at UVMMC recruited and trained four new volunteer peer visitors through the TSN. Four online information sessions were hosted with local organizations to increase awareness of resources available to trauma patients. Clear guidelines, protocols and procedures were created for the expansion of the TSN at UVMMC's main campus and the inpatient rehabilitation unit at Fanny Allen.
   Outcome Measures: This doctoral capstone developed two surveys, one to assess patients' perceptions on the impact of meeting with a peer visitor regarding quality of life. Authors used a second survey to gather feedback after virtual information sessions from participants regarding the effectiveness of increasing awareness of community organizations.
   Results: The TSN was successfully expanded by onboarding four new peer visitors. Survey results suggest online information sessions increased awareness of community resources that patients, families, caregivers, and providers were not previously aware of. The newly developed protocols for expansion at UVMMC and Fanny Allen were approved by the trauma department.
   Discussion: Due to time constraints, peer visitors did not meet with patients by the end of the capstone. However, the trauma team plans to administer the developed patient survey upon initiation of visitation to understand how peer visitation impacts quality of life. Survey results following information sessions indicate participants found the sessions beneficial to learn about new resources, ask questions about specific diagnoses, and how and where the organizations operate. Potential community partners were identified for continuation of information sessions.

6. **Inclusive Recreation: Development of Resources for Supporting Athletes with Spinal Cord Injuries.** *Tobin, Molly; Rixon, Amy; Maynard, Margaret; Priganc, Victoria*

   Background. Individuals with spinal cord injuries (SCI) are at high risk for depression, social isolation, unemployment, and reduced community participation (Cheung et al., 2023). Physical activity and sport have been linked to improved quality of life and integration after SCI, but barriers—especially limited social support—can restrict participation. A needs assessment by this OTD student identified a gap in accessible educational materials for caregivers and community partners involved in adaptive sports. This doctoral capstone aimed to develop and promote targeted resources to help family, friends, and adaptive sport programs better support individuals with SCI in engaging safely and confidently in recreation.

   Methods. In collaboration with the Kelly Brush Foundation (KBF), 25 athletes with SCI were surveyed to guide resource development. Based on their input, 14 PDF and 5 multimedia materials were created to address topics such as the role of support persons, safety considerations, and disability sensitivity. These resources were published on KBF's Active Project website in a new "Friends and Family Hub" and shared with adaptive sports programs nationwide.

   Results. Resources were evaluated throughout development. A preliminary survey of adaptive sports professionals assessed readability, clarity, and relevance. All respondents (100%) agreed on the materials' relevance; one suggested simplifying content to improve accessibility across diverse audiences. Final feedback and anticipated impact will be assessed by KBF staff.

   Discussion. This project's findings support the creation of educational materials to empower caregivers and community partners in enhancing safe, meaningful participation in recreation for individuals with SCI. Occupational therapy played a central role in promoting education, accessibility, and client-centered care throughout the capstone experience.

7. **Advocacy and Education on OT's Role in Palliative Care for Caregivers and Healthcare Professionals.** *Baranik, C; Parmalee, A; Maynard, M*
   Background: Occupational Therapy (OT) is an underutilized healthcare profession in the model of palliative care. In the palliative care model, OT aims to provide patients with compensatory strategies for activities of daily living as their condition changes. OT is often underutilized due to a lack of understanding among patient caregivers and healthcare professionals, late referrals, and limited insurance reimbursement for OT services (Phipps & Cooper, 2014; Halkett et al., 2010). These barriers result in a narrow scope of practice when OT referrals are made late, limiting the benefit patients would receive from OT services.
   Objectives: The primary objective of this Doctoral Capstone Experience (DCE) is to educate Caregivers and healthcare professionals on the role of OT in the field of palliative care. The secondary objective of this DCE is to advocate for Occupational Therapy to become a more frequently utilized service for patients in palliative care services.
   Methods: The initial phase of this DCE utilized responses from Occupational Therapists with current or previous experience in palliative care via a survey and semi-structured interview to identify perceived barriers for OT in palliative care. This information was utilized to develop presentation material for caregiver support groups and healthcare professionals to educate and advocate for OT in palliative care. Participants for the presentations were provided with pre and post-experience surveys to collect qualitative and quantitative data regarding their understanding of OT and palliative care to demonstrate an increased knowledge base to improve opportunities for OT in palliative care.
   Results: Utilizing pre and post presentation survey data, Caregivers reported an increased understanding of OT's scope of practice, as well as an increased likelihood to advocate for OT services for their loved ones. Data from healthcare professionals also demonstrated increased understanding of OT and increased likelihood to make referrals for services.

8. **Empowering Caregivers Through Occupational Therapy: The Benefit of Co-Regulation for Infants with NAS.** *Lillis, Mackenzie*

Background: Neonatal Abstinence Syndrome (NAS) is a condition that affects infants exposed to substances in utero, often leading to challenges with self-regulation, feeding, and sleep (Janesson & Patrick., 2019, Mangat et al., 2019, Patrick et al., 2020, Velez et al., 2021). Caregivers play a crucial role in supporting these infants but may struggle to respond to their needs effectively (Craig et al., 2018, Harris et al., 2018, Suarez et al., 2018). Occupational therapy (OT) provides strategies to enhance caregiver confidence and promote infant well-being through co-regulation techniques (Clancey., 2020, Oostlander et al., 2019). Co-regulation, the process by which caregivers help infants develop self-regulation through responsive interactions, enhances neurodevelopment and strengthens caregiver-infant bonds (Aubuchon-Endsley., 2020, Clancey., 2020,Oostlander et al., 2019). This capstone explores the role of OT within the care team as well as supporting caregivers through co-regulation strategies to improve outcomes for infants with NAS.

Objectives: This project aimed to create evidence-based educational materials for caregivers of NAS with a focus on co-regulation. The overall goal of this project was to develop a comprehensive resource for caregivers to decrease stress, assist caregivers with developing into their new roles, facilitating co-regulation between caregiver and infant to aid in the neurodevelopment of the infant.

Methods: A qualitative approach was used, including a literature review and needs assessment of Neonatal Abstinence Syndrome and its impact on the caregiver-infant dyad. Ten semi-structured interviews were conducted with healthcare professionals and individuals with lived experience. Guided by the Model of Co-regulation, which emphasizes shared physicality, emotionality, and intentionality, this resource incorporates a multidimensional learning style and adheres to health literacy guidelines for accessibility (Cho., n.d.).

Results: Semi-structured interviews revealed a need for accessible, structured educational materials on co-regulation strategies. Key themes included lack of education, caregiver confidence, and self-regulation challenges, particularly related to sensory processing and feeding difficulties. Participants emphasized the importance of advocacy, community resources, and environmental modifications to support co-regulation.

Discussion: This program highlights the importance of OT in bridging gaps in care through comprehensive caregiver education. By providing educational resources, OT practitioners can improve caregiver confidence, strengthen caregiver-infant relationships, and support the neurodevelopment of infants with NAS.

9. **Enhancing Support for Neurodivergent College Students: An Occupational Therapy Approach in Student Accessibility Services.** *Lopez, Rachel; Clemmons, Laura; Priganc, Victoria*
   Neurodivergent (ND) college students, including those with attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD), often experience challenges that exceed the scope of standard academic accommodations (American Psychiatric Association [APA], 2022). This project explored the integration of an occupational therapy (OT) framework within Student Accessibility Services (SAS) at the University of Vermont to enhance support for these students (American Occupational Therapy Association [AOTA], 2014). In collaboration with Health Sciences Disability Coordinator Dr. Laura Clemmons, a needs assessment was conducted using surveys to collect both quantitative and qualitative data from ND students and SAS staff. Student surveys explored barriers related to mental health, executive functioning, sensory processing, social participation, and attitudinal challenges. Staff surveys assessed their confidence in supporting students in these same domains. Student responses revealed a strong need for direct support in sensory processing and executive functioning, as well as more inclusive, sensory-friendly campus environments. Staff findings emphasized a need for increased student support in areas such as financial management, work–school balance, sensory regulation, and social participation. These results highlighted service gaps that OT is uniquely positioned to address. In response, the OTD student designed and delivered educational presentations introducing OT principles, including a strengths-based, neurodiversity-affirming approach (Robertson, 2010), and evidence-based strategies to support ND students. A companion resource aligned with AOTA's Vision 2025 (AOTA, 2020) was also developed, offering SAS staff practical tools, handouts, and community referrals. Retrospective staff surveys indicated improved understanding of OT's role and increased interest in future collaboration. The alignment between identified needs and OT's core domains—such as sensory regulation, executive

functioning, and participation— demonstrates the value of integrating OT into SAS. Doing so can expand available resources, promote inclusive campus policies, and enhance participation and well-being for neurodivergent college students (Bazyk & Case-Smith, 2021; AOTA, 2014).

10. **Exploring Occupational Therapy's Role in Maternal Postpartum Support.**
Meaghan A. Bannister, Sarah Sinnott (site mentor), Margaret Maynard (faculty mentor)
Postpartum care in the U.S. has often been criticized as inadequate for addressing women's health needs, with research on maternal experience during the postpartum period illustrating the need for better education on infant care, breastfeeding, maternal health, emotional recovery, role changes, and social support (ACOG, 2016; Hancioglu et al., 2020; Madray et al., 2022; Ong et al., 2014; Sponseller et al., 2021). Therefore, a survey-based study conducted by this author explored how occupational therapy (OT) can help bridge these gaps in postpartum care. Mothers attending programming at a family center in Burlington, VT completed surveys identifying their postpartum support needs and educational interests. Survey development was based on Fidler’s Lifestyle Performance Model and included open-ended and multiple-choice questions. Responses were analyzed using thematic analysis and descriptive statistics. Thematic analysis highlighted key concerns: physical care, routine management, sleep deprivation, social support, and infant care. These insights informed the development of a four-part postpartum support workshop series hosted at the family center. Participant feedback on the workshops was compiled through pre- and post-workshop surveys assessing motivation, key takeaways, and suggestions to gauge effectiveness of OT interventions for postpartum support. Post-survey data showed that 80% of moms that attended workshops found the content “very relevant” to their needs, and all workshop attendees reported being “satisfied” (46.7%) or “very satisfied” (53.3%) with the workshops. Qualitative responses on key takeaways showed that participants valued learning new techniques to care for their physical and mental health, caring for their baby and discovering new community connections. This positive evaluation of the occupational therapy-based workshops’ effectiveness will be used to advocate for the inclusion of OT in postpartum care by demonstrating its impact on maternal well-being. These findings could be further utilized to guide program development for

occupational therapists to reach and support mothers during the postpartum period.

11. **Program Development for Mansfield Hall Staff to Improve their Satisfaction and Competence in Working with Neurodivergent Young Adults in Apartment Meetings Through an Occupational Therapy Lens.** *Russin, G; Adsit, S; Feretti, A*
    Background: Mansfield Hall is a support dorm for neurodivergent students ages 18-27 who are college capable but may not be ready for total independence yet (Mansfield Hall, 2024). One of the supports Mansfield Hall provides is a weekly hour-long apartment meeting where staff assist the students with cleaning to help students obtain some or full independence in the instrumental activity of daily living (IADL) of home management.
    Objectives: This quality improvement capstone explored Mansfield Hall staff training to improve staff satisfaction and ability to effectively work with neurodivergent young adults in IADLs during apartment meeting times.
    Methods: A staff needs assessment was conducted using a Google forms survey and the Cognitive Orientation to Daily Occupational Performance (CO-OP) model to create a five part training program for staff. The CO-OP model is a verbal task-oriented problem-solving approach that improves occupational performance (Rodger & Brandenburg 2009).
    Results/ Discussion: Results from the needs assessment (n=20) indicated all Mansfield Hall staff used personal experience or received no training in how to teach IADLs skills to the Mansfield Hall population. Staff completed pre and post surveys before the training then 4 weeks after. Staff were asked to rate their confidence and perceived competence on a 5 point Likert scale in working with students in apartment meeting times. The post survey showed an average of 1.17 points increase in their perceived competence score, and a 0.83 point increase in their confidence score after the workshops. The post survey (n=13) showed 69.2% (n=9) of staff reported being “very satisfied” and 30.8% (n=4) reported being “satisfied” with their overall satisfaction in using CO-OP strategies with students. This capstone explores the role of how an occupational therapy lens can positively impact staff’s ability to use evidence based practices and satisfaction in working with these populations.

12. **Improving Health Outcomes for Spinal Cord Injury Patients and Increased Provider Understanding of Holistic Health Considerations through Multimodal Educational Resources.** *Dovano, A., L., Benoit, K., Hollingworth, K., & Maynard, M.*

    Background & Objectives: Resources for individuals with spinal cord injury (SCI) in Vermont remain limited and biomedical in scope, contributing to decreased carryover of learning from rehabilitation to independent living. Yet, a biopsychosocial framework is increasingly recognized as essential to long-term positive health outcomes, with person-centered approaches linked to improved outcomes up to 45 years post-injury (Biering-Sørensen et al., 2012; Angel & Sviland, 2025). This project aimed to increase engagement with educational resources while addressing unexplored holistic health outcomes among Vermont's SCI population.

    Methods: Two surveys assessed overall function, resource access, and sexual/reproductive health. Five semi-structured interviews with SCI participants were analyzed using deductive coding to identify prominent themes. Pre- and post- resource dissemination surveys with OT/PT providers measured changes in self-efficacy regarding holistic care and resource utilization.

    Results: Survey and interview findings guided the development of multimodal educational resources. Eight Vermont-based participants (ASIA A-C) completed the sexual health survey; seven completed the function survey. Of these participants, 42.9% felt unsupported by state resources and disconnected from the SCI community. All participants expressed concern about engagement in sexual activity post-injury, and 87.5% reported concern about maintaining romantic relationships. Thematic analysis from interview transcripts highlighted three key themes: value of peer mentorship, inaccessibility of information, and limitations of rehabilitation programming. Provider surveys demonstrated improved self-efficacy in addressing sexual/reproductive health considerations and utilizing Vermont-specific resources following resource dissemination.

    Discussion: Initial findings indicate that current SCI resources in Vermont inadequately reflect the multifaceted nature of treatment and recovery. Initial low provider self-efficacy in addressing holistic health considerations underscores the need for enhanced education and training related to these concepts. Participants' desire for peer connection and inclusive resources suggest that future programming should expand its reach to other demographic populations for improved access to resources and increased quality of life.

13. **Parent Perspectives in the NICU and the Role of Occupational Therapy.**
Cash, C. E.
Introduction. Mothers and caregivers of premature infants in the neonatal intensive care unit (NICU) often experience trauma that lead to feelings of isolation, fear, depression, anxiety, uncertainty, and helplessness (Neu et al., 2020). The primary objective of this capstone project was to look at mothers and caregivers' perspectives of their NICU experience ranging from current NICU stays to up to 20 or more years post-NICU discharge at Dartmouth Health Children's Hospital. The second objective of this project was to identify the current and future role that occupational therapy (OT) may have in addressing these needs for parents/caregivers. Methods. This project recruited (n=43) mothers and caregivers through QR code handouts to participate in an online survey containing three Likert scales and five open-ended questions that targeted occupation-based needs including bonding, feeding, bathing, and mental health needs of caregivers. Data was analyzed using Google Forms and Sheets. Results. Results from the survey of mothers and caregivers revealed contextual factors and themes that affected caregivers during their child's NICU stay. Findings from this gathered data presented six themes. These themes include: mental health, connection with other families, support, bonding, leaving the unit/infant, and communication/resources. Through the date ranges of the NICU stays, findings indicate that co-occupations between caregivers and infants increased with the rehabilitation team (more specifically, occupational therapy) was added to the child's care team. Discussion. Findings indicate that OT's role within the NICU is broad and well-suited to meet the physical, mental, and psychosocial needs of mothers and caregivers. Therefore, enhanced advocacy is needed for the role of OT within the NICU setting in addition to continued exploration of how OT can continue to meet the perceived needs of mothers, caregivers, and infants within the NICU.

14. **Rehab to Recreation: Bridging the Gap.** *Riecken, I; Webster, C; Priganc, V; Maynard, M*

    Participation in adaptive sports or recreation programs is essential for physical and mental well-being, especially for individuals with an acquired disability who are reintegrating into the community (Akter et al., 2019). Several barriers can limit a disabled individual's access to, or awareness, of adaptive sports programs, thus leading to poorer health outcomes as well as feelings of social isolation (Mahooti et al., 2020; Oh & So, 2022). Researching such programs can be overwhelming, especially for an individual who is navigating life with a new disability. In response to this need, this Doctoral Capstone project focused on the development of a comprehensive online resource outlining adaptive sports and recreation programs in Vermont, education on adaptive sports programs within community support groups, and the development of a mentorship framework to connect experienced adaptive athletes with individuals considering joining a program.

    This project involved an initial survey to determine the specific needs of this population, extensive research of existing adaptive sports and recreation programs in Vermont, and collaboration with professionals working in adaptive sports, program participants, and community support groups. A qualitative post survey was utilized to assess the usability and informational value of the website. The pre and post surveys were made available to disabled individuals in Vermont, with the post survey also collecting data from healthcare and adaptive sports professionals.

    87% of survey respondents reported that the website introduced them to an adaptive sports or recreation program they were unaware of, and 84% indicated they would refer to this website again in the future. Rehabilitation professionals will also benefit from this comprehensive resource as they help guide their patients through community reintegration after injury or illness. With the creation and distribution of this resource, including the mentorship program, awareness of adaptive sports and recreation programs in Vermont has the potential to increase.

15. **Community Needs Assessment for Informal Caregivers of People with Parkinson's Disease.** *Schatz, Kayla, M.*

    Informal caregivers provide physical and emotional care to another person to ensure their well-being and safety (Kim et al., 2023). While this care is essential for the other person, this can lead to a feeling of burnout

– being a state of mental, emotional, and physical exhaustion (Cleveland Clinic, 2023). Informal caregivers are likely to experience several areas of barriers and challenges that can lead to a feeling of burnout. People with Parkinson's disease (PD) often require care from another person as symptoms progress. In Vermont, the Frederick C. Binter Center for Parkinson's Disease and Movement Disorders connects people with PD and their families with resources to promote independence and sustained quality of life. While this site has many resources, current research indicates a gap in support for informal caregivers. To address this, a community needs assessment was conducted over the course of seven weeks to determine gaps in care for informal caregivers of PD patients in Vermont and surrounding areas. This assessment addressed the following domains: 1) Care at the Binter Center; 2) Resources; 3) Intimacy; 4) Thoughts on the Future; 5) Barriers; and 6) Ease of Care. Surveys were designed with a 5-point Likert format (1 – Disagree; 2 – Somewhat disagree; 3 – Neither agree nor disagree; 4 – Somewhat agree; 5 – Agree). Initial results indicate four main themes: 1) Altered relationship dynamic between caregiver and care partner; 2) Concern for the future; 3) Need for respite care and more physical support; and 4) Need for mental health/emotional support. The results of the community needs assessment will be published in the Binter Center's Spring Newsletter. Additionally, the Spring Newsletter will address certain gaps in care by sharing a comprehensive list of resources for caregivers and patients alike. A 2-month post-survey will be distributed to determine if the Spring Newsletter adequately filled the perceived gaps in care.

16. **Developing and Implementing Health-Literate Resources to Enhance Psychologically Informed Pain Management in Older Adults.** *Nigro, M, C*
    Chronic pain (CP) is a prevalent and debilitating condition impacting approximately 5 million adults in the United States, with a disproportionate impact on older adults. It significantly impairs individuals' ability to participate and actively engage in daily life (Hestmann et al., 2023). Despite the high prevalence of CP among older adults, especially those in long term care settings, there remains a notable gap in services with few facilities offering comprehensive pain management programs (Yong et al., 2022). This Doctoral Capstone project aimed to implement a structured pain education program at Wake Robin, a Continuing Care

Retirement Community, to enhance residents' knowledge of chronic pain and to improve participation and engagement in daily life.
Five residents were recruited to participate in weekly one-hour educational sessions covering neurophysiology, pain perception, and pain management strategies using the "Why You Hurt" pain neuroscience education system as a guide. Pre and post intervention measures included the Canadian Occupational Performance Measure, Brief Pain Inventory, Pain Self-Efficacy Scale, and the Chronic Pain Acceptance Questionnaire–8. Narrative information was collected throughout the project and at the conclusion to capture the impact the program had on individuals lives. To support learning throughout the program and beyond, a workbook was developed summarizing key concepts, providing reflection questions, and offering additional pain management strategies. This resource will remain available to residents and staff at Wake Robin to enhance access to chronic pain education.
Preliminary findings suggest improvements in pain self-efficacy, participation in meaningful activities, overall quality of life, and acceptance of their pain and current abilities with the addition of pain education. This project emphasizes the benefits of implementing a comprehensive pain management program in a long-term care setting, highlighting the potential to improve residents' engagement in daily activities, quality of life, and acceptance of their CP and functional abilities.

17. **Home-based high-intensity balance training with family member support in persons with multiple sclerosis: A feasibility single-group pretest-posttest design.** *Bae, Myeongjin; Gell, Nancy M; Ramsey, Caroline; Kasser, Susan L.*
Background and objective: Regular exercise participation is necessary for persons with multiple sclerosis (MS) to maintain or improve their physical and cognitive functions. However, recent meta-analyses revealed that home-based balance training did not significantly improve balance and cognitive function in persons with MS. Thus, this study aimed to examine the feasibility of a novel home-based high-intensity balance training program (HBBT-MS) employing family member support and determine its effect on balance, cognition, and self-reported outcomes.
Methods: This study involved a single-group pretest-posttest design. We recruited 28 persons with MS (mean age: 55.2, 82.1% Female) and 29 exercise supporters (mean age: 54.3, 65.5% Male). Participants performed

the HBBT-MS program for 30 minutes per session, 3 days per week for 12 weeks. We assessed feasibility, physical, cognitive, and self-reported outcomes at pretest and posttest remotely.

Results: There was a high adherence rate (92.9%) and attendance rate (94.4%), with no severe adverse events reported for the program. Most participants with MS and their exercise supporters were satisfied with the program contents and support. There were significant and small-to-medium improvements in static balance, lower-extremity function, and walking. Participants showed significant and medium improvements in cognitive processing speed and visuospatial memory, but not verbal memory. We observed significant but small improvements in self-reported outcomes, including fatigue, fear of falling, and dual-tasking.

Discussion: The HBBT-MS was feasible and safe in persons with MS. Participants were also capable of meeting the prescribed high-intensity exercise dose with support by family members. This study also demonstrated promising evidence of positive changes in physical, cognitive, and self-reported outcomes following the intervention. Findings of feasibility and effect of the HBBT-MS program are useful for informing the design of larger clinical trials focusing on the efficacy of this modality on varying balance and mobility-related outcomes.

18. **Review of Literature of Health & Wellness Coaching Programs with a Case Example in an Academic Setting.** *Corrigan, K, M; Westervelt, K, C; Whitman, S*

Background: Employees' stress escalates as they attempt to balance work schedules with a healthy lifestyle. The emerging field of health and wellness coaching supports individuals seeking sustainable lifestyle changes.

Objectives: The objective of this study was to identify optimal practices in the delivery of health coaching in the workplace to promote employee wellbeing.

Methods: This two-part study included a literature review of worksite health and wellness coaching programs and an evaluation of the UVM's employee wellness coaching program. Sources from PubMed, CINHAL, and hand searching were analyzed to assess program structure and outcomes. Attendance statistics and participant feedback from 3.5 years of UVM's program were assessed to recommend program improvements.

Results: Most programs in this literature review followed a six-week or longer group coaching style which improved self-efficacy and reduced burnout. The greatest improvements in self-efficacy and sustained physical activity were observed in participants with health risks including obesity and cardiovascular disease. UVM's 12 week program uniquely combined individual and group coaching, led by student and Board-Certified coaches. Notably, the program was open to all employees without risk stratification. Participants reported reduced stress and improved perceived physical and mental health, with some benefits lasting 12 weeks after program completion. While attendance rates were high for the individual coaching, dropout rates remained a challenge, as seen in other programs.

Discussion: This 2-part study demonstrated that health and wellness coaching in the workplace effectively reduced stress and promoted well-being. While various formats exist, few incorporate both individual and group coaching or student coaches, as UVM's program does. The premise of self-determination theory in health coaching appears to benefit high health-risk employees. It allows for a whole person, individualistic approach to health promotion. Future studies should target high-risk populations and expand student involvement to increase participation and clinical experience opportunities.

19. **Exploring the Integration and Application of the Yamas and Niyamas in Western Yoga Practice.** *Gresham, Alexandra R*

With a growing body of research describing the benefits of yoga on health and quality of life, more people are engaging with yoga in the West every year. However, as the practice becomes more globalized, there has been increased focus on the physical movement practice and its impacts on stress, and limited attention on the philosophical elements that complete the practice. The roots of yoga lie in South Asia and the Yoga Sutras of Patanjali, a defining text of the practice, describes its eight limbs as: asana (postures), pranayama (breath control), pratyahara (sensory withdrawal), dhyana (meditation), dharana (concentration), yamas (moral restraints), niyamas (moral observances), and samadhi (enlightenment). This study aims to understand whether Western yoga practitioners are integrating and applying the yamas and the niyamas into their daily lives. A cross-sectional survey was conducted using the validated Yama and Niyama Questionnaire to survey yoga practitioners in the Burlington, VT area. It was found that the practice of the yamas and niyamas was strongly correlated with the age of the practitioner, rather than frequency of practice or years of experience. These findings indicate that philosophical elements of yoga may be more embraced with life experience, and are not necessarily related to the amount of time practicing yoga as it is taught in the West. Further, these findings suggest that practitioners in the West may not be exposed to the philosophical aspects of yoga by yoga instructors or in their practice, as increased engagement with the practice was not found to correlate with adherence to the yamas and niyamas. These findings contribute to the body of research that describes the exclusion of the philosophical elements of yoga in its Western practice, and encourage more research to be conducted on the implications of excluding philosophical elements on the potential benefits of the practice.

Biomedical and Health Sciences

20. **Proposed Intervention on Mental Distress in Cancer Patients.** *Gresham, Alexandra; O'Sullivan, Emily; Cerritelli, Lila*
Background: Mental distress affects 20-40% of individuals undergoing active cancer treatment, with higher rates in those with breast and lung cancer, those in advanced stages, and those with lower socioeconomic status, educational attainment, and single marital status. Despite these challenges, mental health care is not integrated into cancer treatment. A lack of psychosocial support in treatment leads to reduced treatment adherence, worsened side effects, difficulty making decisions, increased morbidity, lower survival rates, and increased financial burdens.
Objective(s): We aim to introduce mindfulness-based relaxation techniques to disseminate strategies to reduce stress and improve emotional well-being. Evidence suggests that yogic breathing and art therapy improve levels of distress in cancer patients. Thus, our goal is to implement programs by community members to introduce interventions and provide spaces for those staying at the Hope Lodge to socialize, be a part of a larger community, and identify with aspects of their identity outside of their cancer diagnosis.
Method: This problem was analyzed through a literature review, including evidence-based interventions and previously performed studies. In

addition, communication with key stakeholders was utilized to further our understanding of the target population.
Results: Results are pending; however, preliminary results indicate that implementing mindfulness-based relaxation techniques is effective in reducing mental distress among cancer patients undergoing treatment.
Discussion: Our goal is to not only provide these individuals with a safe and relaxing environment but also ensure they have the lifelong skills and tools to continue practicing mindfulness throughout their lives, improving their well-being and reducing emotional distress during their cancer journey and all of life's challenges. If the intervention proves successful at Hope Lodge in Burlington, Vermont, we hope to be able to apply it to Hope Lodges across the country and reduce the overall burden of mental distress among cancer patients.

21. **Preventing Burnout in Nurses working in Hospital Settings.** *Reilly, T, E; Dulig, V, M*
Background: Burnout in nurses within U.S. hospital settings is a growing concern, with nearly 50% of healthcare workers and up to 56% of nurses experiencing significant burnout (Singh et al., 2023). This leads to high turnover rates, with 41% of nurses intending to leave their positions within two years (Shah et al., 2021). As burnout grows, it compromises patient care and depletes the workforce, creating a harmful cycle. Systemic changes to improve working conditions are challenging, so enhancing individual coping mechanisms and fostering a supportive work culture must be prioritized.
Objective(s): This initiative aims to identify the stressors contributing to burnout among nurses by engaging directly with nursing staff. The main goal is to create actionable recommendations tailored to unit-specific needs, improve communication between nurses and leadership, and foster a collaborative environment that strengthens team dynamics and peer support by facilitating conversations within unit-specific units.
Methods: This approach involves nurses in conversations about burnout and interventions based on the framework used in community engagement research (World Health Organization, 2020). Nurses will participate in unit-specific advisory teams, providing feedback that informs leadership about their unique challenges. This model emphasizes a supportive, sustainable work environment and aligns with best practices for collaborative problem-solving (NICE, 2017). Community stakeholder

interviews and a review of the existing literature will inform and direct the direction.
Results: Nurses at UVMMC have shown a unique interest in unit-specific advisory teams. With intervention methods, they hope to improve communication and strengthen nurse engagement. Nurses report feeling more supported and connected to leadership, and actionable solutions are being implemented to reduce stress and improve work culture.
Discussion: This initiative promotes a culture of collaboration and peer support, which is vital for mitigating burnout. By addressing unit-specific needs and involving nurses in the solution process, the program will create a more resilient and satisfied nursing workforce, ultimately improving patient care and reducing turnover.

22. **Greater risk of perinatal mood and anxiety disorders (PMADS) in refugee populations.** *(Church,E,J)(Raihall,C,S)(Gutowsky,H,R)*
Background: Perinatal Mood and Anxiety Disorders are among the most common complications of pregnancy and childbirth. Refugee women experience PMADs at higher rates and get screened at lower rates, while facing obstacles to care with language barriers, culturally incompetent care, and transportation obstacles. This increased burden of PMAD's in refugee populations is correlated with poor maternal and child outcomes with higher rates of early neonatal mortality, low-birth-weight infants, stillbirth, and gestational diabetes.
Objective(s): This project seeks to address the issue of low screening rates in the refugee population for PMADs in Vermont by increasing culturally sensitive care at the University of Vermont Medical Center.
Methods: To gather information, an extensive search of peer-reviewed articles was performed to identify evidence-based best-practice interventions that promote refugee maternal health. Asset Mapping was completed in the Burlington-Winooski area to analyze strengths and supports in neighborhoods with high rates of refugee resettlement. Interviews were conducted with key stakeholders to gain greater insight on and understanding of the issue from clinical, community, and professional perspectives.
Results: The Refugee Health Screener-15 (RHS-15) was identified as a high-priority mental health screening tool used to identify distress, anxiety, and depression in refugee populations. This intervention is specifically tailored to bridge access gaps for refugees at both the individual and community

levels. It integrates culturally competent mental health screening, education, and support into the female refugee population by partnering with pre-existing refugee-serving organizations and strengthening relationships with the target community on the ground.
Discussion: The integration of the RHS-15 into the University of Vermont Medical Center is advised for its culturally relevant, trauma-informed approach to screening distress, anxiety, and depression. With 42% of refugee women in Vermont affected by postnatal depression—compared to 10-15% of the native-born population—early detection is crucial for improving maternal and child outcomes.
Barriers such as language access, cultural stigma, and poor healthcare experiences contribute to lower screening and treatment rates. By embedding the RHS-15 into perinatal care and strengthening partnerships with refugee-serving organizations, this initiative fosters trust and improves connections to mental health services. Early intervention not only enhances maternal well-being but also mitigates long-term effects on children's mental health, reducing cycles of trauma across generations. Ultimately, the RHS-15 promotes a more equitable and accessible healthcare system, ensuring refugee women receive the support they need for better maternal and child health outcomes.

23. **Health Careers Through Our Eyes.** *Le, L. and Hincks, A. K.*
Background - Shortages of Primary Care Providers (PCPs), specifically in rural regions of Northern Vermont continue to be an ongoing concern. With the shortage of PCPs increasing annually, the need for more providers continues to grow to better serve these vulnerable populations. Rural communities often lack access to quality health care, which often leads to an increase of acute care utilization, higher risk of developing chronic illness/disease, and overall poorer quality of life.
Objective(s) - The objective of our research is to develop an intervention that strengthens the HERO Mentoring program offered by Northern Vermont AHEC. Our intervention aims to offer virtual job-shadowing opportunities to middle and high school students living in rural Northern Vermont, in an effort to allow for more influential career exploration. Virtual job-shadowing allows for experiential learning opportunities in a way that is equitable, cost-efficient, and accessible to all students despite.
Methods- The methods used to conduct our research and intervention planning included defining our target population, creating an asset map

to review what resources are already available to these communities, peer-reviewing literature that explored evidence-based practices in virtual job-shadowing, and conducting key stakeholder interviews.
Results - The results of the research are pending additional stakeholder engagement and interviews. Therefore, the analysis of the literature and best-practices surrounding interventions to combat the shortage of PCPs are ongoing until data collecting has completed.
Discussion - A gap that was identified within the literature included low post-secondary college enrollment rates amongst Vermont high school students. An identified crucial need included developing accessible programs and resources that provide students with further insights and exposure into different health careers with a focus on primary health in order to peak the interest of this population, in hopes of increasing a desire to pursue a career in primary health.

24. **A community-based well water bacteriology testing intervention to combat private well contamination in Vermont.** *Kutcher, Lily and Scaramuzzo, Francesca*
Background: Approximately four in ten Vermont households rely on private well water. Unlike municipal water systems, which are closely monitored for safety, private wells depend on individual owners for maintenance and testing, leaving many residents vulnerable to health hazards from microbial and other contamination.
Objective: Working with The Vermont Department of Health Laboratory [VDHL], we aim to develop an intervention to improve low rates of adherence to private well water contamination testing recommendations.
Methods: We identified a community-based intervention and estimated costs for its implementation through stakeholder interviews, literature review, and analysis of existing VDHL programs.
Results: Our research highlights the effectiveness of community water testing events in improving not only testing rates, but rates of successful remediation as well. We propose that the Vermont Department of Health sponsor free well testing and remediation events in each of the state’s four geographical quadrants with the goal of increasing the proportion of wells that receive appropriate testing and treatment for microbial contamination.

Discussion: This intervention would constitute the first instance of a free water test kit distribution program operating in all four geographical quadrants of Vermont outside of a disaster response context. Future directions may include evaluation of the potential cost effectiveness of a state-subsidized rebate on well contamination remediation materials and services on an income-based sliding scale.

25. **Enhancing Shared Decision Making and Informed Consent in the Birthing Process.** *Pelszynski, N , Sorongon, M*
Background: There is a lack of shared decision making and informed consent within the birthing process. This problem impacts all childbearing individuals. In 2024, there were 3,667,758 births in the United States according to the CDC (CDC, 2024). Within this population, many women report a lack of shared decision making and informed consent throughout their birthing process. (Jacques et al., 2024). The lack of shared decision making and consent can cause birth trauma, which leads to postpartum depression, anxiety, negative flashbacks, and more which can affect breastfeeding behavior, reproductive decisions, and partner relationships (Bechtel, 2024).
Objective(s): Our objective is to create a program that improves the communication skills between clinicians, midwives, and patients to enhance shared decision making and informed consent in the birthing process.
Methods: We uncovered information about this topic by using databases such as PubMed while also reading grey literature sources. We also conducted stakeholder interviews to assess the severity of shared decision making and informed consent in midwifery as well as communication tendencies between providers.
Results: Our program focuses on improving health communication and health education. Health communication strategies include improving dialogue between healthcare providers using scheduled team huddles and ensuring all team members are aware of the patients needs and birth plan. In addition, adding a whiteboard with the patient’s rooms to serve as a communication This intervention will also address health education by ensuring decision aids are used throughout the birth process.
Discussion: Our program can contribute to a wider discussion of maternal mortality and what can be done to promote shared decision making as an intervention to decrease rates of maternal mortality. Future research

should look at effective implementation of this program or similar programs on a wider scale to gain more understanding into the scope of its influence.

26. **From Waste to Wellness: A Student-Driven Solution to Food Insecurity.**
(Christopher, S,R) (Rausa,G,R)
Background: Food insecurity among college students is a growing concern, negatively impacting academic performance, mental health, and overall well-being. Many students struggle to access nutritious meals due to rising tuition, financial constraints, and high living costs, leading to poor concentration, stress, and lower academic success. Addressing this issue is critical to supporting student success.
Objective(s): This study examines food insecurity at the University of Vermont (UVM) and proposes an intervention to expand the existing Swipe Out Hunger program. The goal is to increase meal swipe donations by allowing students to donate unused swipes to peers in need. This student-driven initiative aims to improve food access and reduce hunger on campus.
Methods: To assess food insecurity at UVM and evaluate the potential impact of this program, we conducted a literature review using academic and grey literature. Additionally, stakeholder interviews—including insights from Joanne Burke, a key figure in implementing the "Swipe It Forward" program at the University of New Hampshire—will inform program design and implementation strategies.
Results: Preliminary data indicates that 1 in 5 UVM students experiences food insecurity. Based on these findings, we propose a digital platform for swipe donations, managed by dining services and promoted through campus outreach. Early evidence suggests this model could significantly improve food access for financially strained students.
Discussion: The "Swipe It Forward" program promotes community engagement and sustainability by reducing food waste and fostering peer support. Its success hinges on student participation and collaboration with dining services. Stakeholder feedback will refine the program to ensure long-term viability. If effectively implemented, this initiative could serve as a scalable model for other universities combating student food insecurity.

27. **HSCI Capstone: Cat ECare.** *Barry, J. E.; Huling, O. S.*
    Background/Objective: The disparity in out of hospital cardiac arrest (OCHA) leads to adverse health outcomes in vulnerable communities. About 90% of individuals who experience OHCA die, with survival chances decreasing by roughly 10% every minute that CPR or AED administration is delayed (American Red Cross, 2025). Counties with a higher proportion of rural, Black, Hispanic, and lower income residents often have lower CPR training rates, leading to disparity in outcomes from OCHAs (Shah et al., 2014). Research indicates that bystander-initiated programs are associated with an increased likelihood of survival (Fernando et al., 2018). The objective of this intervention is to increase CPR/AED training rates in Burlington school communities that have higher rates of vulnerable populations, notably in the Winooski area.
    Methods: Research from Fisher and colleagues (2024), provides us with an appropriate framework for addressing this issue; the study presents a novel approach to improving CPR/AED education outreach to underserved communities and vulnerable populations, facilitated in a variety of ways. Fisher et. al (2024) states that the most effective interventions focused on tackling disparity in OHCAs are built on utilizing existing organizations to expand and maintain CPR/AED training programs, which is very appropriate for the Cat ECare site.
    Results: To mitigate the disparity in outcomes following OHCAs, the intervention will specifically target communities with a high proportion of vulnerable populations, such as Winooski, VT. Since as many as 70% of OHCAs occur at home to a family member or someone known by the bystander, teaching adolescents and their families CPR/AED skills at school is crucial to maximizing community preparedness in responding to OHCAs (Kua et. al 2018).
    Discussion: Ultimately, this intervention hopes to expand the current Catamount Emergency Care CPR/AED training efforts to the surrounding Burlington school district of Winooski, VT, via training community members and their families.

28. **Learning from victim-survivors' narrative experiences of nonconsensual condom behavior.** *Bryan, A.C.; Elazar, L.D.; Demers, J.M.; Gregus, S.J.*
    Non-consensual condom behavior (NCCB), also known as "stealthing" involves misleading or deceitful actions related to contraceptive use. While the behavior began gaining attention in 2017 (Brodsky, 2017), there

remains limited research into NCCB as a recognized form of sexual and intimate-partner violence (Davis et al, 2024). Initial research into NCCB conceptualizes the behavior as a form of reproductive sabotage, when one partner has an explicit goal of impregnation facilitated through condom damage or removal (Grace & Anderson, 2018). However, this approach fails to consider a broader operationalization of NCCB, in which partners might engage in "stealthing" for additional reasons without the explicit goal of pregnancy. Existing research has captured how other forms of sexual violence transpire and impact victims, but there is a gap in understanding the specific nuances of victims' experiences of NCCB (Breitenbecher, 2006). This study used thematic analysis (Braun and Clarke, 2006) to analyze participant responses to short-answer questions in an online survey about their victimization experiences. The sample consisted of 149 participants made up of undergraduate students at a midwestern urban university and non-students of the same age range in the surrounding community. The questions inquired about their experiences of NCCB, including their thoughts, emotions, and how those experiences have affected their future relationships and/or sexual encounters. It was observed how systemic influences, such as cultural rape myths and traditional gender roles, impact a victim's actions and emotions within the moment of harm and afterwards. Key findings included disproportionate reports of NCCB occurring within exclusive relationships compared to those not mentioning a relationship, reduced responsibility on the part of male partners, and increased negative internalizations in those who have experienced NCCB. Findings from this study could be used to inform primary prevention programming aimed at fostering healthy relationships and tailored responses and services for NCCB victims.

29. **Misconceptions and Barriers to Addressing Interpersonal Violence on UVM Campus.** *Khan, I, N; Begin, M, C*
Interpersonal violence (i.e. sexual assault, dating violence, and stalking) is a prominent problem on college campuses nationwide. In the 2022-2023 school year the University of Vermont's (UVM) Office of Equal Opportunity received 207 total disclosures of sexual harassment or misconduct (UVM Office of Equal Opportunity, 2023). This emphasizes the need for more prevention and education efforts on campus.

The UVM Preventing Interpersonal Violence with Outreach and Training (PIVOT) program is a new initiative that aims to help better understand the University's readiness for prevention efforts and real social change while also preventing interpersonal violence through peer education. Before implementing any intervention, a community needs assessment should be conducted with key stakeholders to gain an understanding of knowledge and perceptions of interpersonal violence on campus, as well as any strengths and barriers to a successful implementation.

The aim of the study this data was extrapolated from is to establish baseline data on perceived misconceptions about interpersonal violence on UVM's campus. Participants consisted of 28 staff members at UVM who were selected for their leadership positions as well as knowledge and experiences with interpersonal violence on campus. Individual semi-structured interviews and focus groups were conducted and analyzed using thematic analysis (Braun and Clarke, 2006). Participants were asked their perceptions of misunderstandings and misconceptions about interpersonal violence held by staff and students. In addition, they were asked to name any barriers they saw to effective conversations about interpersonal violence on campus.

Findings indicated several overarching themes and sub-themes related to lack of access to supports. The results of this study will be used to inform the continued refinement of the peer educator prevention program. Results could also help guide interpersonal violence prevention programs on campus such as the Student Government Association Sexual Violence Prevention trainings and other student led programs to better address concerns on campus.

30. **Parenting and Prevention: Addressing Eating Disorder Risk Through Caregiver Education.** *Berard, E, C., Goodall, E, S., Gallagher, C, R*

Background: Eating disorders are increasingly prevalent in the United States of America, with one person dying every 52 minutes as a result of disordered eating. Parental dynamics are crucial in the development of eating disorders. Children of parents who are overly controlling, neglectful, or have an eating disorder are at a heightened risk of diagnosis. The impacts are far-reaching, leading to long-term physical comorbidities and emotional/social consequences. Primary caregivers have a significant role in preventing these issues through their attitudes, behaviors, and interactions with their children.

Objectives: This study aims to assess the impact of parental dynamics on the development of eating disorders in children and adolescents, with a focus on educating parents as a preventive intervention. The ultimate goal is to equip caregivers with evidence-based guidance to reduce behaviors, attitudes, and interactions that can contribute to disordered eating risks and promote positive developmental outcomes in their children.

Methods: This recommendation was informed by reviews of the current literature surrounding eating disorders and prevention programs. Engaging with stakeholders has provided insight into evidence-based eating disorder interventions. Inventorying existing community assets in the Burlington, VT area has aided in the identification of the available resources. This methodology ensures that the given recommendation is grounded in both evidence and community need.

Results: The work is ongoing, and we are pending further stakeholder engagement. It is evident that educating parents on the effect of their dialogue, behaviors, and diet on that of their child is successful in fostering positive body image and eating habits.

Discussion: By increasing knowledge surrounding harmful language and behaviors, parents can begin to reduce the prevalence of dangerous eating habits in children overall. Research exists surrounding the influence of parents on disordered eating, however, there are limited studies conducted in rural areas, specifically Vermont.

31. **Peer Advocacy and Informed Support for IPV in College.** *Luikart, Emma; Izzo, Sophie*

Background: Intimate partner violence (IPV) is when a romantic partner is abusive emotionally, financially, physically, and/or sexually. Around 20% of college students have reported experiencing some form of IPV. The issue of IPV is pressing for all college age students, but especially for women, those with disabilities, and LGBT+ identifying people. There are immediate and long-lasting impacts that IPV has on the survivors of these relationships. Having experience with IPV can lead to survivors finding themselves in a continued cycle of violence in other relationships.

Objective(s): Our objective is to address IPV on UVM’s campus through a peer advocacy program. This program will be led by members of the Title IX office and Steps to End Domestic Violence, in a collaboration that will train peer advocates to support fellow students who have been affected by IPV or sexual violence. This program will act as a peer to peer resource to help the survivor through their next steps and offer any knowledge or support they may need.

Methods: Our team has conducted key stakeholder interviews within the Title IX and Sexual Violence Prevention and Education Coordinators respectively. The peer advocates will learn about Title IX policy, intimate partner violence (IPV), and the resources at and outside UVM. This training will be 3 hour sessions each week, over 10 weeks. It will be conducted by Title IX officers and STEPS staff.

Results: The work is ongoing, currently in the beginning research stages, and requires further development.

Discussion: Potential future direction for this intervention would expand to Champlain College and St. Michaels students. This would allow a larger network of peer advocates and students would be able to reach out to advocates outside of their own college if they feel more comfortable speaking with someone outside of their community.

32. **Peer-to-peer Health and Wellness Coaching to Support Mental Health and Wellbeing.** *(Brown, B, L) (Krokenberger, L)*

Background: The OSHER Center is part of a collective of 11 centers nationwide. Its primary goal is to support and advocate for integrative approaches to supporting and maintaining health. The OSHER center at UVM frames its work through four pillars: empowering, believing, building and supporting, and nurturing connection and well-being. Current literature suggests that mental health is a leading struggle in the United States and has a higher prevalence among college students. The proposed intervention incorporates a peer-to-peer health and wellness coaching model at UVM.

Objective: To assess the potential utilization of a peer-to-peer health and wellness coaching program focusing on promotion, prevention, and early intervention to support mental health among college students.

Methods: Assay the current mental health climate and needs of the UVM student community through a needs assessment to determine the plausibility of a peer-to-peer coaching program at the University of Vermont. A needs assessment developed in collaboration with the Center for Health and Wellbeing will be distributed among a sample of the student body, and short in-person qualitative interviews will simultaneously be conducted.

Results: The current needs assessment is ongoing. Preliminary results of the needs assessment will be gathered and interpreted by the middle of May. Discussion: A selective review of current literature supports the use of peer-to-peer wellness coaching as an integrative, community-based approach to mental health promotion in college populations. Grounding the intervention in the OSHER Center's framework will foster trust, empowerment, and meaningful connection and align the program at the intersection of current literature. Further efforts will be ongoing to interpret the needs assessment data in light of current literature to support the development of a program that aligns with the needs of the UVM student body.

33. **Photovoicing for Winooski Students.** *Francis, A, C/ Ross, H, B*
Background: A large issue facing students in Vermont is hopelessness and loneliness, which are risk factors for future substance misuse. Additionally, BIPOC students are more likely to experience discrimination, lack of support, and poor treatment compared to their peers, increasing their susceptibility to poor health outcomes. In the Winooski school district, over ⅓ of the students have a first-language other than English. Winooski is more diverse than most of Vermont, and students there face additional challenges that affect their mental health and ability to learn, putting them at a greater risk of developing a substance misuse disorder. Objective(s): Youth enrolled in the Winooski School District can engage in an after-school program with adult facilitators that utilizes photovoice asset mapping to identify protective and risk factors embedded in the community. Participants will photograph factors across their community and write why they chose that asset. Students can present their project to stakeholders, school board admin, and local legislators to integrate themselves in the decision-making process in their community. This will promote a sense of agency, empower students to use their voices for positive change and help to decrease youth substance misuse. Methods: An inventory of existing assets in Winooski was compiled by creating an asset map of the city, which aided in identifying the needs and gaps within the community. Relevant peer-reviewed literature was examined to gather information on challenges faced by students in Winooski and potential interventions that would directly address them. The consulted literature identified statistically significant data supporting the results of these intervention strategies, making this an evidence-based

suggestion. Key stakeholders were identified and interviewed, such as the Winooski school district superintendent and a state representative, who were both in support of the proposed strategies.
Results: Analysis is ongoing, and preliminary results and previous research shows that participation in afterschool activities decreases the likelihood of substance misuse and promotes autonomy in youth. Successful interventions have been identified including one that implemented Youth Participation Activity Research for middle schoolers, which saw increased perceptions of both opportunities to be heard as well as supportive relationships with adults involved in the program. Another successful intervention implementing a photovoice program for youth illustrated the intervention's benefits, including increased sense of agency and engagement in the community.
Discussion: On a local level, we identified a need for youth empowerment and substance misuse prevention. This program is important because it provides students with a third space, which is proven to decrease engagement in risk behaviors. This work would grant students the opportunity to contribute to their community and connect with stakeholders. In doing so, this work will empower students and remind them of their ability to make a difference to benefit their environment.

34. **Reviving Rural EMS in Vermont: Policy Recommendations Centering Loan Repayment for Recruitment and Retention.** *Fenner, Yangdon; Kenney, Ella, G.; Lewis, Ariana, M.*
Background: Historically, Vermont's emergency medical services (EMS) have relied on volunteers. However, as volunteerism decreases, the current model, which relies on volunteers, has become unsustainable. In Vermont, 70% of Vermont EMS respondents indicated that the primary area where they needed support was in "budgeting and finances". In a national survey, 69% of rural EMS directors reported difficulty in recruiting and retaining their staff. Rural EMS are already disadvantaged by insufficient reimbursement revenue, longer transport times, and difficulty in recruitment and retention. More incentives and efforts in recruitment and retention are needed to ensure a robust rural EMS workforce.
Objectives: To develop a policy-driven recommendation for the Vermont Public Health Association on EMS recruitment and retention to address the growing disparities concerning the lack of access to EMS care in rural Vermont.

Methods: To understand the current state of EMS in Vermont, an analysis of the population of Vermont was conducted using U.S. Census data and information published by the Vermont Department of Health. Additionally, asset mapping of rural health resources, concept mapping of the lack of EMS in rural Vermont, and key informant interviews with 3 individuals, both over video call and in person, were completed. An evidence-based intervention approach was taken to research the best practices.
Results: While the analysis is ongoing, the preliminary results show that models offering loan forgiveness for healthcare providers who work in Health Professional Shortage Areas (HPSAs) may be effective in EMS recruitment and retention in rural Vermont.
Discussion: Similar to national trends, rural Vermont is facing significant shortages in EMS personnel, worsening the disparities in their access to care. Addressing this shortage requires a multidimensional approach. However, developing a recommendation may have a significant, positive impact on the access to care and the long-term health of rural Vermont residents.

35. **STEPS Intervention.** *Flaherty, B.; Blackburn, S.; Begin, M.*
Background: STEPS is a statewide nonprofit founded in 1986 whose mission is to assist in the transition to a safe, independent life for all those who have been affected physically, sexually, emotionally, or economically by domestic abuse and to promote a culture that fosters justice, equity and safety. 2 in 10 Vermont adults have experienced any form of Intimate Partner Violence and between 1994 and 2022, 45% of all homicides in Vermont were related to domestic violence. The devastating impact of domestic violence extends far beyond the immediate danger of physical abuse, leaving survivors to endure long-term physical, emotional, and psychological harm.
Objective(s): Our objective is to address IPV on UVM's campus through a partnership between STEPS and UVM to put on a program that educates students and provides them with necessary skills to prevent and respond to violence.
Methods: Our team will utilize personal interviews with key stakeholders and review prominent current research to develop effective education. This education will be included as part of the education required for incoming freshmen to the university as well as administered annually to clubs and campus organizations as part of their required safety training.

Results: Our preliminary findings indicate a need for increased IPV education and prevention programming on UVM's campus, as existing resources are underutilized or unknown to many students. Further research is needed to assess student knowledge gaps, identify barriers to accessing support services, and tailor content to the diverse experiences of UVM students.

Discussion: Addressing IPV on college campuses requires a proactive, community-centered approach that goes beyond awareness campaigns. Our proposed partnership between STEPS and UVM provides a unique opportunity to embed IPV education within the campus culture, fostering a safer, more supportive environment for students. By equipping students with practical skills for prevention and response, this intervention aims to shift campus norms, reduce stigma, and promote bystander intervention.

36. **Supporting Supporters: Connecting Family Caregivers to Supportive Resources.** *Elliott, O. A.; Cacace, H. R.*

Unpaid family caregivers play a crucial role in our healthcare system. In Vermont alone, approximately 20,000 caregivers dedicate 28 million hours of unpaid care each year to loved ones living with dementia, making them the backbone of supportive dementia care. While these caregivers work tirelessly to ensure their loved ones are connected to the resources needed to manage their diagnosis, their own needs are often overlooked. This oversight is detrimental to caregivers' health. Over 50% of unpaid family caregivers report experiencing high levels of emotional stress. Additionally, they face significantly higher rates of depression and anxiety compared to the general population.

Our goal is to address these unmet needs and improve the overall well-being of unpaid family caregivers.

This disparity in supportive care came to our attention through our work with the Alzheimer's Association. Through conversations with Association members and caregivers themselves, we began to understand the extent to which caregivers are stretched thin while trying to provide adequate care—often without recognition or support. Further investigation revealed findings from a caregiver assessment conducted in Vermont by the Access to Respite Care and Help (ARCH) National Respite Network & Resource Center. This assessment, which included 207 cases, reported that every caregiver assessed was at high risk for burnout. Additionally, when we spoke with stakeholders at the Department of Disabilities, Aging, and Independent Living (DAIL) in Vermont, we learned that caregivers are frequently overlooked during the dementia diagnosis and referral process. Despite being central to the care journey, they are often excluded from discussions regarding their own health and well-being during this challenging chapter.

To address this gap, we recommend that Vermont's programs connecting individuals diagnosed with dementia to supportive resources expand their referral processes to include unpaid family caregivers. By doing so, we can ensure that all individuals affected by a dementia diagnosis—not just those diagnosed—receive the support and guidance they need to lead healthy, sustainable lives.

37. **The Diabetes-Dementia Connection: A Vermont Education Program.**

Baxter, Kevin, Alexander, Catherine, Lasala, Luke

Objective: Our intervention intends to boost or refresh healthcare providers' knowledge and awareness of type 2 diabetes as a risk factor and comorbidity of Alzheimer's Disease and Related Dementias (ADRD). In our research, we sought out a timely, cost-effective model. Moreover, we sought out a model that displayed high provider satisfaction and a strong evidence base.

Methods: In planning, we constructed an asset map to identify potential collaborations at the community, state, and county level in Vermont. In consultation with the Alzheimer's Association and Vermont Department of Health, we determined that risk factors of dementia are a critical focus in public health in Vermont for the future as the population is rapidly aging. We conducted a thorough search of peer-reviewed literature on google scholar, web of science, and pub med to identify gaps in healthcare provider knowledge and awareness surrounding dementia, and identified potential models for intervention use. After a model was settled on, we consulted with key stakeholders from the Alzheimer's Association, Vermont Department of Health, and Vermont Academic Detailing to determine the feasibility of our overall intervention.

Results: Scholarly literature indicates that type 2 diabetes is one of the most significant risk factors of dementia. In addition, healthcare providers are often unaware that myriad chronic diseases are risk factors of dementia. In our search for a model, we found that Academic Detailing (AcD) has been consistently effective for over 20 years at changing healthcare providers' practices, with a precedent existing for dementia education.

Discussion: Vermont is rapidly aging, and age is the biggest risk factor for ADRD. Our intervention seeks to orient healthcare providers towards earlier detection, prevention, and awareness of risk factors for ADRD, and boost dissemination to patients across the life course.

38. **INVESTIGATING GENETIC AND IMMUNOLOGICAL CONTROL OF GAMMAHERPESVIRUS REPLICATION.** *Waytashek, CW., Nelson, EA., Sessions, KJ., Usherwood, EJ., Krementsov, DN.*

Chronic infection with the gammaherpesvirus EBV is a risk factor for several autoimmune diseases and cancers. While many studies have been completed to evaluate genetic risk factors for EBV-associated pathologies such as multiple sclerosis, these studies have relied on indirect measures of EBV severity. Our work focuses on the host genetic factors that influence control of gammaherpesvirus replication, targeting the initial acute infection for study rather than the downstream associated pathologies and using the direct measure of viral burden. Previously we identified the wild-derived mouse strain PWD/PhJ (PWD) as having viral loads several logs lower than C57BL/6 (B6) mice at both early and late time points during infection with MHV-68, a gammaherpesvirus homologous to EBV. We further showed that depletion of NK cells in PWD mice resulted in elevated viral load, suggesting that elite control of viral replication in PWD mice is partially mediated by NK cells, a novel finding. To explore host genetic elements contributing to this superior control, we completed a genetic screen of C57BL/6J-ChrPWD chromosome substitution (consomic) mice. From that screen we identified the consomic strain carrying the full PWD chromosome 17 (Chr17F), as partially capturing the MHV-68 resistance of PWD mice, with viral loads four-fold lower compared to B6 mice. However, unlike PWD, Chr17F mice showed reduced viral loads independent of NK cells, suggesting the existence of a second genetic locus controlling the NK cell-dependent viral resistance phenotype. Genetic mapping with the subconsomic Chr17S, has narrowed the locus on Ch17 to the interval 27.6-49.4 Mb, which includes the MHC locus. Chr17F F1 experiments have determined a dominant inheritance pattern for the locus on Ch17 and a N2/N3 breeding strategy is ongoing to generate new subconsomic mouse lines to narrow the locus and allow for in-depth immunological profiling.

39. **The Role of Social Identity in Activism-Motivated Online Disclosure of Interpersonal Violence: A Qualitative Study.** *Puterbaugh, Summer A; Porter, Lilliana; Demers, Jennifer M; Wing, Hannah*

Disclosure of interpersonal violence is occurring increasingly in online spaces due to its perceived safety and support that individuals may not find elsewhere (NIH, 2025). Social media platforms can allow individuals to find a source of community and support through online groups as well as provide opportunities for activism and advocacy through online sharing--helping to raise awareness and support others. Nonetheless, victims belonging to one or more marginalized communities receive less support when disclosing their experiences online and face greater blame when doing so. However, the ways in which social identity might inform choices to disclose one's victimization experiences online, especially as a form of activism, are understudied. Furthermore, how those who have disclosed online choose to label their victimization experiences and their role in activist efforts is missing from the literature. The current study aimed to address these gaps in the literature via semi-structured interviews with ten adult participants who experienced sexual and/or intimate partner violence, disclosed their victimization online, and identified social change as a strong motivator for their disclosures. Interviews were analyzed using Braun and Clarke's (2006) thematic analysis and all interviews were double-coded. Findings indicated that participants held complex feelings about the title of "activist", which many participants viewed as a title that must be earned. Participants were overall more comfortable defining themselves as "advocates". Furthermore, facets of participants' identity, particularly individuals' previous and current religious beliefs, political standing, and sexuality, created both incentives and barriers to their online disclosures. While in some cases stigma and stereotypes associated with identities motivated participants to help change societal norms, spread awareness, and build solidarity through online disclosure, the increased risk of backlash due to these same biases presented as an obstacle to online disclosure for other participants. The results of this study add to the literature on social media's role in survivors' personal experiences of empowerment and engagement with activist efforts. Findings may inform efforts to better support survivors as they navigate the use of online spaces and find their voice within larger social change movements.

40. **Intestinal colonization of Akkermansia muciniphila exacerbates EAE dependent on the microbiota context.** *Peipert, D; Montgomery, T; Krementsov, D*

Multiple Sclerosis (MS) is autoimmune disease of the central nervous system (CNS) in which myelin-reactive immune infiltration contributes to neurodegeneration and subsequent disability. Various studies have documented elevated abundance of the gut bacteria Akkermansia muciniphila among patients with MS and animal models of MS compared to healthy control subjects, insinuating it may be a risk factor for disease. However, A. muciniphila is widely considered beneficial in various other pathological contexts, and recent studies suggest that A. muciniphila may be associated with reduced disability score in MS. Short-chain fatty acids (SCFAs), a category of bacterial metabolites with immune consequences for the host, are modulated by A. muciniphila and represent a potential pathway in which A. muciniphila may modulate MS. To better understand the role of A. muciniphila in MS, we have generated two distinct microbiome models within C57BL/6J mice with and without A. muciniphila, providing a variety of ecological contexts in which A. muciniphila may behave differently. Using experimental autoimmune encephalomyelitis (EAE) to model MS, we assessed the impact of A. muciniphila colonization on disease severity across microbiome models and identified a microbiome in which the addition A. muciniphila leads to increased disease severity. Exacerbated EAE severity in A. muciniphila-colonized mice was associated with increased Th17 responses and an increased frequency of CNS-infiltrating immune cells. We performed 16S sequencing of fecal samples to identify differences in the gut microbiome by A. muciniphila colonization. We observed a reduction of gut Clostridia, key producers of the SCFA, butyrate, concomitant with A. muciniphila colonization in our microbiome model in which A. muciniphila exacerbates EAE. Likewise, analysis of inferred functional pathways relevant to SCFA metabolism highlighted pathways related to reduced butyrate production. Taken together, our data contribute to the complex role of A. muciniphila on the severity of CNS autoimmunity.

41. **STK11 Loss in KRAS Driven Lung Adenocarcinoma Promotes Cancer Stemness.** *Esposito, K.R., Prior, S.M., Royer, C.M., Deming, P.B., Seward, D.J., Scheiber, M.N.*
Lung adenocarcinoma (LUAD) is the most prevalent subtype of non-small cell lung cancer accounting for over 85% of all lung cancers. 25% to 30% of LUAD cases are driven by mutations in the KRAS oncogene, with 10-15% of these patients harboring a loss of function (LoF) mutation in the tumor suppressor gene STK11 (serine/threonine kinase 11). Retrospective patient studies have demonstrated that concurrent oncogenic KRAS and STK11 LoF mutations are associated with metastatic disease, poorer patient survival, and inferior therapeutic response. We hypothesize that STK11 loss in KRAS-driven LUAD enriches the cancer stem cell (CSC) population, resulting in a pro-metastatic phenotype. CSCs represent a small subset of tumor cells capable of self-renewal, asymmetric division, and tumor initiation. Given their role in metastasis, chemoresistance, and disease progression, CSCs could be key contributors to the aggressiveness observed in KRAS-driven STK11 LoF LUAD. To test this hypothesis, we utilized the KRAS-driven LUAD cell line NCI-H2009 and an STK11 knockout variant (ΔSTK11) to assess differences in CSC properties. In 3D culture, ΔSTK11 multicellular spheroids (MCTS) showed a significant increase in CSC biomarker CD44 mRNA when compared to parental and ΔSTK11 monolayers and parental MCTS by RT-qPCR. We have also observed increased mRNA expression of additional CSC markers, NANOG, OCT4, and KLF4, in ΔSTK11 MCTS. CD44, plays a critical role in maintaining the stem-like properties of cancer cells, however, the precise mechanisms connecting CD44 expression and STK11 remain unclear. To address this, we are investigating the transcription factor pathway NF-kB, to elucidate its role in mediating enhanced CD44 expression upon STK11 loss. To characterize the function of the CSCs in KRAS-driven STK11 LoF LUAD, we have employed an embryonic zebrafish xenograft model. This in vivo system allows for real-time visualization of tumor cell survival and dissemination, providing critical insights into the metastatic behavior of cells. In conclusion, our research highlights the role of STK11 loss in driving CSC enrichment and enhancing metastatic potential in KRAS-driven LUAD. By elucidating the underlying mechanisms, we aim to identify new therapeutic targets to improve outcomes for patients with this aggressive cancer subtype.

42. **The hexosamine biosynthetic pathway promotes metastatic potential upon glutamine deprivation in STK11 null KRAS-driven lung adenocarcinoma.** *Prior S, Sands L, Lenahan S, Royer C, Scheiber M, Seward D, Deming PM*

Lung cancer is the leading cause of cancer-related deaths worldwide. Loss of STK11 function in KRAS-driven lung adenocarcinoma (LUAD) dysregulates many cellular processes, including metabolism. Recent work from our group revealed pro-oncogenic signaling in KS cells upon glutamine deprivation. We hypothesize that glutamine scarcity promotes metastatic potential in KS via metabolic rewiring. To test this, we employed a cell culture model of KRAS-driven LUAD with and without STK11 (ΔSTK11). At baseline, ΔSTK11 cells demonstrate a hypermetabolic phenotype associated with enhanced glutamine utilization. Unexpectedly, deprivation of glutamine led to the detachment of live ΔSTK11 cells, that maintained the ability to re-adhere and proliferate in nutrient replete media. Furthermore, ΔSTK11 cells upregulated anti-apoptotic and EMT markers in the absence of glutamine. Invasive capacity was assessed using a spheroid model, and while parental spheroids were unaffected by glutamine deprivation, ΔSTK11 spheroids displayed enhanced ameboid-like single cell invasion. Investigation into the mechanism(s) underlying this metastatic phenotype revealed an upregulation of the hexosamine biosynthetic pathway (HBP) upon glutamine deprivation in ΔSTK11 cells. The HBP is an offshoot of glycolysis that serves as a central hub to regulate many cancer fitness pathways. Treatment with FR054, an inhibitor of the HBP, decreased metastatic potential of ΔSTK11 cells as measured by anchorage independent survival and 3D-spheroid invasion. These results suggest ΔSTK11 cells utilize the HBP as a protective shunt in response to glutamine deprivation, undermining the potential benefit of glutaminase inhibitors (i.e. “glutamine starvation”) as a therapeutic intervention in KS LUAD patients. Future work aims to further elucidate the role of the HBP in promoting metastasis and to determine the mechanism(s) by which ΔSTK11 cells regulate the HBP. Overall, our data reveal novel insight into the molecular mechanisms altered downstream of STK11 loss linking glutamine metabolism with metastatic potential in KRAS-driven LUAD.

43. **Using a Multipronged Approach to Characterize C-terminal Domain Polybasic Motif STK11 Variants.** *Gopika Nandagopal, Cole Royer, Peyton Jenkins, Olivia Morton, Paula Deming*

KRAS-driven lung adenocarcinomas (LUADs) with STK11 loss-of-function (LoF) mutations are linked to aggressive tumors, with increased metastasis, and poor survival outcomes. STK11, a serine-threonine kinase, and its LoF impacts many aspects of coordinated cell motility and promotes alterations characteristic of metastasis. In previous work we classified STK11 missense mutations of unknown significance for pathogenicity using a biochemical approach to determine if they retain kinase activity. Here we found that C-terminal domain (CTD) STK11 variants retain kinase function. The CTD, though not catalytic, is essential for STK11 localization to the plasma membrane and cytoskeleton, where it negatively regulates focal adhesion kinase (FAK). Recent literature has shown that the polybasic motif (PBM) within the CTD is key for plasma membrane localization – we therefore reasoned that mutations to this residue would result in impeded STK11 function that cannot be captured by studying kinase activity alone. Indeed, our work shows that STK11 PBM point mutants (R409W, K416E, A417S, K423E), disrupt localization, leading to nuclear sequestration while retaining kinase activity. 2D migration assays using STK11 KOP lung adenocarcinoma cell lines, stably re-expressing CTD mutant STK11 via lentiviral transduction, reveal that CTD mutated lines show increased migration compared to their wildtype counterparts. As an additional measure of STK11 function in these mutants we are looking at their ability to negatively regulate FAK. We demonstrate in KRAS-driven LUAD cells, loss of STK11 leads to elevated FAK activity, as shown by increased pY397-FAK autophosphorylation levels. This approach will be used to similarly query cell lines expressing PBM point mutants for elevated pFAK levels. Additionally, a stable K416E_K423E double mutant cell line is being generated to study the impact of PBM mutations on cell migration, and the TurboID system is being used to identify PBM-dependent STK11 interacting proteins.

Nursing

44. **"If you can't see it, you can't read it... you're in the world of the unknown": How communication features impact human connection during telehealth cancer care.** *Haque, A. E., Medeiros, S., Verma, S., Ambati, A., Reblin, M., Gramling, R., & Tarbi, E. C.*
    Despite changing policy, telehealth remains a valuable tool for communicating with patients, particularly those who live in rural areas. As the COVID-19 pandemic introduced widespread use, many became interested in learning more about how patients form and maintain connections with their providers in this new medium for communication. We endeavored to examine the role that communication features, whether they be verbal, non-verbal, or contextual, play in human connection. In semi-structured recorded interviews we defined communication features as "the words that people say and how they say them". These interviews were conducted via telephone and Zoom with adults who 1) live in a rural area, 2) are receiving or have recently completed cancer treatment, and 3) had a telehealth appointment as part of their comprehensive cancer care. In total, we interviewed 20 participants who traveled between 29 minutes and over 7 hours to UVM Cancer Center. Out of the 20 participants, 60% identified as female, 100% identified as white, and 90% felt financially secure all the time. Cancer types varied, including 37% had GI cancers, 21% had breast cancers, 21% had lung cancers, among other forms. Frequently, participants found it difficult to identify communication factors that resonated with them during care. Many emphasized that regardless of which specific communication factors were used, what mattered was that they felt important to and heard by their providers. Communication factors that influenced this feeling included: feeling like a priority (verbal), being able to read the facial expressions of those they are talking to (non-verbal), and participating in serious care conversations from the comfort of their home (contextual). These findings reinforce theories about person-centered individualized care, particularly during serious illness communication, and suggest potential communication features to empirically test in future research.

45. **“It feels better without one on”: Implementing the Condom Use Resistance Screening Tool in a Medication-Assisted Treatment Center.** *Thomas, A, L*

    Non-consensual condom removal (NCCR), commonly known as stealthing, occurs when a condom is removed during intercourse without consent. It is increasingly recognized as a form of sexual assault and intimate partner violence by researchers. Research indicates that 7.9% to 43% of women and 5% to 19% of men who have sex with men experience NCCR (Davis et al., 2024). Implementing the Condom Use Resistance (CUR) screening tool aims to reduce NCCR at the clinic, establish baseline data, and enhance healthcare staff awareness by Fall 2024. The CUR tool was administered to patients while they waited at the dispensary window, accompanied by educational flyers, pamphlets, and brief informational sessions. Two months later, it was re-administered to assess its impact. Surveys measured patient satisfaction and staff confidence in addressing NCCR. Findings revealed that 22% of clients had experienced NCCR, while 3% admitted to perpetrating it. Women reported higher rates of victimization, and discrepancies between self-reported perpetration and victimization highlighted potential societal biases in reporting. Following the intervention, 73% of clients recognized NCCR as a critical health issue, and 76% felt comfortable seeking support. Staff confidence in addressing NCCR increased without disrupting workflow. Although NCCR rates remained unchanged, the study successfully established baseline data and improved provider awareness. Future efforts should integrate NCCR education into routine healthcare training, promote early consent education, and develop trauma-informed care protocols to better support affected individuals.

46. **Closing the Knowledge Gap: Increasing Primary Care Provider Confidence in Ehlers-Danlos Syndrome and Hypermobility Spectrum Disorder.** *Ballard, V. P. Y., Pelski, J., D'Amato, T., Hakim, A.*

    Background: Patients with Ehlers-Danlos syndrome (EDS) and hypermobility spectrum disorder (HSD) often experience a prolonged “diagnostic odyssey” before receiving appropriate care. A significant barrier to timely diagnosis and treatment is the limited knowledge and confidence among healthcare practitioners, despite the availability of established assessment and diagnostic guidelines.

    Objectives: The intervention aimed to enhance primary care provider confidence in diagnosing EDS and HSD.

Methods: This pilot project applied the Mountain Model for evidence-based practice quality improvement (EBPQI) framework using the FADE (Focus, Analyze, Develop, Execute, Evaluate) Model for quality improvement in an independent family medicine practice. To assess baseline knowledge and confidence levels, providers were surveyed using REDCap. Subsequently, a tailored educational presentation with supporting resources was developed and delivered in a hybrid-remote live session. Following the intervention, a post-survey was administered to evaluate the session's effectiveness.

Results: Nine practitioners responded to the initial survey, and five participated in the post-education survey. Results indicated that knowledge, measured on a 5-point Likert scale, increased by 116%, improving from a mean score of 1.44 to 3.12. Mean confidence in diagnosing EDS and HSD, developing treatment plans, and providing care increased by 77.9%, rising from 1.35 to 2.4. Furthermore, mean confidence in applying the hypermobile EDS diagnostic criteria improved by 131.4% for criterion 1 (generalized joint hypermobility assessment, from 1.56 to 3.60), 77.0% for criterion 2 (manifestations of a connective tissue disorder and musculoskeletal complications, from 1.83 to 3.24) and by 65.5% for criterion 3 (exclusion of alternative diagnoses, from 1.75 to 3.04).

Discussion: These findings suggest that a one-hour educational intervention can significantly enhance primary care providers' knowledge and confidence in diagnosing and managing EDS and HSD. Future research should explore the impact of this intervention on a larger sample of primary care providers to assess its broader applicability and long-term outcomes.

47. Conversational AI to Improve Chronic Pain and Comorbid Conditions.

Purba, M. & Tarbi, E.

Chronic pain management has proven to be a complex disease to treat within the realm of primary care. This necessitates the introduction of an innovative strategy that can bridge the gap between our patients' needs and the available resources through evidenced-based practice. The implementation of this Doctor of Nursing Practice (DNP) quality improvement project was centered around the use of a cognitive behavioral therapy (CBT) based intervention facilitated through an artificial intelligence (AI) enhanced mobile chatbot application, Wysa, to address the concomitant biopsychosocial comorbidities associated with chronic pain in the adult population. This project aimed to increase Pain, Enjoyment of Life and General Activity (PEG) scores by 15%, whilst concurrently aiming for associated reductions in Generalized Anxiety Disorder 7-item (GAD-7) and Patient Health Questionnaire-9 (PHQ-9) scores by April of 2025. Anchored in Dorothea Orem's self-care deficit theory, the implementation of this quality improvement project embraced a comprehensive biopsychosocial approach to chronic pain management within primary care. Implementation entailed patient recruitment, enrollment and administration of baseline and follow-up questionnaires through an 8-week Wysa-guided chronic pain focused CBT delivery program from 09/2024-12/2024. While limited by participant recruitment and retention, this intervention successfully achieved its aim of yielding clinically significant reductions in PEG, PHQ-9 and GAD-7 scores, with results exceeding the targeted 15% improvement threshold. Ethical and legal considerations were taken throughout this quality improvement project to uphold the tenets of patient autonomy, data privacy, and the patient-provider relationship. This study highlights the potential of AI-enabled CBT interventions as a scalable and accessible method for chronic pain management in primary care.

48. **Developing a Protocol and Educational Program for Pediatric Lead Screening in a Small Rural Vermont Family Medicine Facility.** *Fischer, Karly B Leighton, Erin*

The Vermont Department of Health (VDH) mandates that all children be tested for lead at 12 months, 24 months, and between three to six years of age, if testing has not been done previously. This quality improvement project was aimed to increase lead screening rates at the project site to comply with the state mandate. The project site required enhancements to comply with VDH guidelines and at the time of this project, did not have a formal protocol for performing lead screening, an aid for ordering within the practice electronic health record, or formal training for all staff on the topic of lead screening. The project's purpose is to increase lead screening rates at the project site to comply with VDH standards.

The primary intervention involved a protocol change by adding a visual cue in the clinic's electronic health record in the form of a checkbox to prompt lead screening ordering during well-child visits. The secondary intervention focused on enhancing staff knowledge, confidence, and

awareness about lead screening guidelines through an education session, assessed via a pre-and post-education survey.
Throughout the study period, the checkbox was utilized, achieving a 58.33% usage rate, an improvement from pre-intervention. Additionally, there was a marked increase in awareness of Vermont's legal requirements and VDH standards for lead screening in the post education sessions. Post-implementation surveys revealed a significant increase in provider confidence regarding lead screening, with all providers feeling confident or very confident. All staff found the educational session valuable and reported it enhanced their knowledge and confidence.
This project demonstrated the potential for a protocol change with electronic health record integration and staff education sessions to improve lead screening adherence and foster improved health equity.

49. **Education for Limited English Proficiency Parents to Enhance Student Influenza Vaccination Rates.** *Lam, T; Whitcomb, H; Link, H*
Influenza is a significant public health concern, particularly for pediatric populations at higher risk of severe illness and complications. Despite strong recommendations from health authorities, vaccination rates among children in the United States are declining, with notable decreases in Vermont. Vaccine hesitancy, especially among parents with limited English proficiency (LEP), contributes to this trend. This quality improvement (QI) project aimed to enhance accessibility to educational materials for parents with LEP to reduce vaccine hesitancy and improve influenza vaccination rates among school-aged students at a public school-based flu clinic in Vermont. An infographic containing evidence-based information on influenza vaccination benefits, safety, and efficacy was developed at a 5th-grade reading level and translated into Spanish and French. The infographic, along with reminders via emails, text messages, and automated voice calls, was distributed to parents before and during a school-based flu clinic. Vaccination data were collected during three clinic days in the fall of 2024, and a post-clinic parental survey evaluated the impact of the educational materials. In 2024, 153 students received the influenza vaccine at the school-based flu clinic, a 50% increase from 2023. Post-clinic surveys indicated that all participating parents found the infographic easy to understand, and the majority reported that it positively influenced their knowledge and decision to vaccinate their child. This project demonstrated that expanding access to multilingual

educational materials may positively impact parental attitudes toward influenza vaccination and improve vaccination rates. These findings support implementing culturally and linguistically inclusive communication strategies to enhance vaccine uptake in school settings.

50. **Elevating LGBTQ+ Healthcare: Improving Data Collection in Primary Care.**
Donohue, KM; Rumley, KJ; Martin, LE; Weise D
LGBTQ+ individuals experience significant health disparities due to stigma, bias, and inconsistent data collection on Sexual Orientation and Gender Identity (SOGI). Despite national recommendations, many healthcare providers lack the tools and confidence to routinely collect SOGI data. This quality improvement project aimed to standardize SOGI data collection and enhance provider comfort in a Vermont-based adult primary care practice. Specific aims included achieving sustained utilization of a SOGI SmartForm and increasing provider comfort in collecting SOGI data by 20%. Using Everett Rogers' Diffusion of Innovation theory as a guiding framework, this initiative integrated an evidence-based SOGI SmartForm into the electronic health record (EHR), provided targeted provider education, and implemented workflow modifications. Retrospective chart reviews assessed SOGI data completeness, while pre-/post-surveys evaluated changes in provider comfort and perceptions. Data analysis included descriptive statistics, run charts, and thematic analysis of open-ended survey responses. Retrospective chart reviews showed an upward trend in SOGI data completeness across several fields, including gender identity and sexual orientation. Provider surveys revealed a 17.5% increase in comfort with SOGI data collection and a 14.3% increase in its perceived importance. Barriers included time constraints and unfamiliar workflows, but provider education and stakeholder engagement were key facilitators of success. Standardized SOGI data collection fosters culturally responsive care and reduces LGBTQ+ health disparities. Sustained education, workflow optimization, and patient engagement are critical for long-term adoption. Future studies should evaluate the broader impact on patient outcomes and health equity.

51. **Identifying Barriers Among Rooming Staff and Providers to Improve Depression Screening in Primary Care.** *Singh, M, K; Whitcomb, H, T; Cangiano, M, L*
Universal depression screening is recommended for all individuals aged 12 years and older, as the absence of screening is associated with adverse outcomes. Despite this recommendation, screening rates in primary care settings remain suboptimal. The global aim of this project was to increase the annual depression screening rates among individuals aged 18 and older at a primary care clinic in Vermont, aiming to achieve a target rate of 70% in accordance with the Vermont All-Payer Model. The primary aim was to identify barriers encountered by rooming staff and providers regarding the use of the existing depression screening protocol. The secondary aim was to improve depression screening rates by applying tailored interventions that addressed the identified barriers. To help identify the barriers faced, the awareness, frequency of use, and experience related to each phase of the screening protocol, as well as the perceived barriers, were evaluated through a survey. Identified barriers included workflow inefficiencies, challenges with documentation, and patient resistance. Two Plan-Do-Study-Act (PDSA) cycles were employed to introduce workflow modifications, provide enhanced education for rooming staff and providers, optimize pre-visit planning, and improve electronic health record (EHR) documentation practices. This quality improvement initiative demonstrated significant progress in completing depression screenings for patients during their annual visits. However, overall, there was no improvement in screenings completed across all visits. The data suggests that identified barriers and targeted interventions improved screening rates during annual visits but did not meet the project's target goal of 70% for all visits. Future efforts should concentrate on screening for all types of visits, pre-visit planning, and telehealth visits.

52. **Implementing a Clinical Screening and Decision Support Tool to Improve Vaping Screening in Adolescent Patients.** *Kelley, C. M.*
Adolescent vaping is a growing public health concern, contributing to high rates of nicotine and cannabis use among youth. Despite substantial health risks conferred by vaping, screening remains inconsistent in primary care, leading to missed opportunities for early intervention. This quality improvement (QI) project aimed to enhance adolescent vaping

screening by implementing a Screening to Brief Intervention (S2BI) Smart Phrase in the electronic health record (EHR) at a family medicine clinic. The objective was to improve screening rates by 20% over a 12-week period and increase provider knowledge, confidence, and comfort in using the S2BI tool. The primary intervention was to use the S2BI Smart Phrase in adolescent well-visits. The secondary intervention was a provider education presentation on use of the S2BI tool and broader vaping trends. Screening rates, interventions, and referrals to treatment were measured as outcome indicators. Process measures included provider knowledge, confidence, and comfort, assessed through pre- and post-intervention surveys. Findings showed the S2BI Smart Phrase substantially improved adolescent vaping screening rates, with screening completed in 56.67% of well-visits, compared to only 16.67% using the standard EHR screening procedure. Additionally, provider knowledge, confidence, and comfort in using the S2BI tool showed improvements. Findings from this project underscore the importance of structured screening and provider education in addressing adolescent vaping. Future initiatives should focus on refining workflows, integrating vaping-specific phrasing into existing frameworks, and expanding the use of validated screening tools across broader patient populations to enhance vaping screening.

53. **Implementing an Intimate Partner Violence Screening Tool in an Outpatient Clinic.** *Yatzor, A., R., Aitken, M., S., & Tarule, S., O.*
Intimate partner violence (IPV) is a significant public health concern, particularly among populations with substance use disorder. Despite evidence-based recommendations, systematic IPV screening is often absent in outpatient settings. This project sought to address this gap within a Vermont outpatient opioid treatment clinic. This QI project aimed to implement the E-HITS screening tool, improve provider preparedness to address positive screens, and assist the clinic in integrating a trauma-informed care training module to enhance clinician support of IPV survivors. The RE-AIM framework was utilized to promote the systematic implementation and evaluation of the project's interventions. The E-HITS tool was integrated into intake workflows in three PDSA cycles over a six-week period. Provider education included an in-service training session and the introduction of an IPV toolkit. Screening rates, IPV detection, and provider knowledge and confidence were measured before and after implementation. Eleven clients were screened during the intervention

period, four of which were positive and distributed equally between genders, marking a significant increase in IPV identification compared to baseline estimations. A trauma-informed care training module was incorporated into the clinic's mandatory education. Provider confidence in addressing positive screens improved, though overall participation was limited. The project demonstrated the importance of universal IPV screening in a high-risk population, identifying IPV, and fostering trauma-informed care practices. Future efforts should address provider engagement, expand screening to all clients, and evaluate long-term outcomes to sustain and broaden the impact. This project underscores the role of nursing professionals in advancing evidence-based, patient-centered care of vulnerable populations.

54. **Implementing Universal Anxiety Screening for Children Ages 8-18 Years Old at a Pediatric Primary Care Practice.** *Berman, E., Nagle, R., McKinley, K., Veit, A.*
The prevalence of anxiety symptoms in children has been rising, driven by current social, cultural, and global factors. In response to this growing trend, the United States Preventive Services Task Force recommends universal anxiety screening for all children ages 8-18 years old without a prior diagnosis of anxiety. Despite this recommendation, and an increase in anxiety and depression rates among Vermont children (from 13.7% in 2016 to 19.2% in 2020), universal anxiety screening remains underutilized in one pediatric outpatient practice. This quality improvement project aimed to increase universal anxiety screening rates to 80% during well-child visits across three pediatric outpatient clinics in Vermont by December 2024. A sequential screening process was implemented, beginning with primary psychosocial screening using the Pediatric Symptom Checklist-17 (PSC-17). Positive primary screens were followed by secondary targeted anxiety screening using the Screen for Child Anxiety Related Disorders (SCARED) or Generalized Anxiety Disorder-7 (GAD-7) depending on age. A positive secondary screen prompted follow-up with a provider. Primary screening rates ranged from 66%-85%, with improvements observed across all clinics during the second Plan-Do-Study-Act (PDSA) cycle. Secondary screening rates ranged from 0%-33%, with two out of three clinics showing improvements. Documentation of follow-up plans varied from 50%-100%, also improving in all clinics by the second PDSA cycle. The percentage of positive primary screens ranged

from 4%-13%, aligning closely with the national anxiety prevalence rate of 10%. These findings suggest that implementing a sequential screening process for universal anxiety screening is both feasible and beneficial in a pediatric outpatient setting.

55. **Improving Health Outcomes for People with Chronic Obstructive Pulmonary Disease.** *Derrick, M, C*
Chronic Obstructive Pulmonary Disease (COPD) is the fourth leading cause of death in the United States. COPD accounts for $24 billion in annual healthcare costs, with $900 million spent on emergency department (ED) visits. Inadequate health literacy and disorganized care coordination exacerbate ED utilization and subsequent hospitalizations. At a primary care clinic in northern Vermont, no standardized educational resources or care coordination guidelines existed for patients with COPD. This project aimed to improve care coordination and health education. Participants (n=29) received health education toolkits and subsequent calls to assess knowledge around their health condition and needs. Eleven (n=11) participants chose to review the health education materials which included a health education checklist, corresponding toolkit, and home action plan. Chart reviews indicated 21% of participants experienced an ED visit or hospitalization in the past year. Despite 24% of participants continuing to smoke, only 3% of these smokers had acute care utilization within the past year. Education desired included home action plans (100%), home monitoring equipment (91%), and breathing techniques (64%). Following intervention, 82% expressed intent to use the acute action plan at home. Interventions improved participant engagement and knowledge, fostering self-management strategies. Future initiatives should explore long-term impacts on acute care utilization and expand standardized care pathways for patients with COPD.

56. **Improving Nurse Confidence and Venipuncture Competency in a Skilled Nursing Facility Through a Simulation-Based Training Program.** *LeBeau, N, J*
Background. Most residents living in a Skilled Nursing Facility (SNF) require phlebotomy at least once every two months or more frequently. Many nursing schools do not teach venipuncture skills as part of their curriculum, so nurses learn through their organization’s training program if it is offered. This leads to decreased confidence and increased risk of unsuccessful venipuncture attempts.

Purpose. Increase nurse-reported confidence levels in performing venipuncture to 20% above baseline and achieve successful venipuncture competency in 50% of nursing staff in a SNF.
Methods. Nurses were surveyed immediately before venipuncture education to assess baseline knowledge and confidence levels using WHO guidelines and a confidence questionnaire. Nurses received a three-hour training on venipuncture using didactic and experiential learning with simulation aids and were surveyed immediately afterwards. Nurses achieved competency in accordance with facility guidelines and were surveyed again one month later.
Results. Seven nurses participated in the education. 53.6% of all nurses in the SNF achieved competency in venipuncture by the end of this training. The mean baseline confidence level was 42.9% and increased to 74.3% immediately following training. Mean confidence levels at one-month follow up were 71.4%, however this decrease was not statistically significant (p=0.436756). Venipuncture knowledge increased in six out of ten categories from baseline at one month follow up.
Conclusion. Providing comprehensive training using simulation aids significantly increases nurse confidence and knowledge in venipuncture.

57. Improving Patient Adherence During the Healing of Foot Ulcers.

McMichen, Bridget, Dale, Rosemary, Stone, Lara

Off-loading pressure is a technique used to treat a variety of chronic wounds including diabetic foot ulcers, pressure ulcers, and neuropathic ulcers. Orthopedic patient adherence to offloading treatment is essential to the success of the treatment. Because limited patient knowledge of offloading devices is a leading factor in non-adherence, educational interventions are effective at increasing adherence. The best approach involves the use of customized education tools, however, there currently are limited patient education materials available regarding off-loading devices. This quality improvement (QI) project aimed to evaluate barriers affecting adherence to offloading devices in patients of the Foot and Ankle Program within an Orthopedic clinic and develop resources and education tools to promote adherence. A standardized questionnaire was created to evaluate areas of need for education. Using these answers education materials were created. To evaluate the intervention, the same standardized questionnaire was given to patients after receiving education and adherence to offloading was compared pre- and post-intervention. Patients who received the education had improved adherence to offloading devices than compared to pre-education. This demonstrates that device specific education promotes patient adherence to off-loading devices. Implications for practice include that device specific education is beneficial for patients and should be focused on factors that can deter use. The factors include weather, appearance, comfort, driving, impact on work, impact on household duties, and impact on mobility.

58. **Improving Patient Education and Understanding Barriers to Access: Optimal Dietary Choices to Support Wound Healing.** *McDermott, C.E.*
Purpose: Older adults in the vascular surgery department face multiple obstacles in achieving optimal nutrition for wound healing. This project aimed to identify the most common barriers to proper nutrition in this patient population. A secondary goal was to provide nutritional education to improve dietary intake in individuals over 60 years old with venous insufficiency wounds.
Methods: A screening survey was administered to patients in the vascular surgery department to assess barriers to proper nutrition. Providers distributed educational materials on optimal dietary intake for wound healing, along with information on food resources. The intervention was documented in the electronic health record using a dot phrase.
Results: Data were collected from twenty patients over 60 years of age with venous insufficiency wounds. The most prevalent barrier identified was a lack of education, followed by motivation, access, and cost. Transportation was not reported as a barrier. Providers implemented the educational intervention in only 16.7% of eligible visits, citing time constraints as the primary obstacle.
Conclusions: Limited provider time during patient visits significantly impacts the delivery of nutritional education. Addressing this barrier could improve dietary habits and wound healing outcomes in older adults with venous insufficiency. Future efforts should focus on integrating efficient educational strategies within clinical workflows.

59. **Improving Primary Care Clinic Screening for Substance Use Disorder.**
Hornbogen, A, M
Substance Use Disorder (SUD) is among the top ten causes of preventable death in the United States and causes health and social complications. Screening for SUD is the first step towards treatment since screening identifies the disorder, yet barriers to screening result in unrecognized and untreated SUD. This quality improvement project established baseline data on the prevalence of SUD within a local Vermont primary care clinic's patient population. The project also sought to assess current provider screening practices and provide patients with access to local SUD resources. The CAGE-AID screening tool, a validated instrument for identifying individuals with or at risk for SUD, was utilized for this project. Patients voluntarily and anonymously completed the CAGE-AID screening tool, providing 'yes' or 'no' answers to four questions surrounding substance use. If patients answered 'yes' to any of the four questions, this indicated a positive screen. A total of 25 screenings were completed. Results indicated that 40% of patients could screen positive for current SUD or an increased risk for development of SUD. Local SUD resources were provided, with 52% of patients taking the resource page, highlighting patient interest. The findings highlight the need for consistent SUD screening in primary care settings and underscore the importance of readily available resources for patients. Further research is recommended to explore strategies for improving patient participation in screening programs and evaluating the long-term impact of resource utilization.

60. **Improving the Collection of a Sexual Health History by Providers in College Health.** *Hurwitz, G, A; Martin, L; Chasnoff, T*
This quality improvement project aimed to standardize the process of taking sexual health histories in a college student health center to enhance patient care, improve early detection, and empower patients in discussions about their sexual health. Baseline data was gathered from a Spring 2024 audit to understand the volume of sexual health-related visits. A standardized sexual health history questionnaire was introduced and distributed during qualifying visits. Providers' feedback was collected through pre- and post-surveys to assess the effectiveness of the intervention, while the number of completed questionnaires was tracked to evaluate implementation success. During the Fall 2024 semester, 73 qualifying patient visits were recorded, with 16 questionnaires completed

(21.9%). All patients who completed the questionnaire found it helpful in guiding their care. Pre-survey results indicated strong provider support for the initiative, and post-survey results revealed significant improvement in the standardization of practice, with providers reporting increased confidence in using the questionnaire. While challenges such as inconsistent distribution and variability in provider adherence were encountered, the intervention demonstrated positive outcomes, including high satisfaction among patients and providers. These findings suggest that the standardized sexual health history questionnaire may improve care quality and efficiency. However, further research and broader implementation are needed to address the limitations and optimize the process. This project provides a successful model for standardizing sexual health history collection in college health. Future efforts should focus on addressing the challenges encountered, ensuring consistent implementation, and expanding the scope of the project to further improve sexual health care delivery.

61. **Optimizing Headache Management in Primary Care: An Evidence-Based Quality Improvement Plan.** *Fikrat, M. M., Gookin, D., Leighton E. M.* Chronic headache disorders are highly prevalent in primary care, yet underdiagnosed and undertreated. Effective management, including early use of preventative and cost-effective treatment, improves outcomes and reduces financial burden. The absence of headache management tools and decreased confidence put primary care providers at risk for ordering premature neurology referrals, without practicing to their full scope and contributing to a significant practice gap in headache medicine. The purpose of this quality improvement (QI) project was to improve utilization of evidence-based practice (EBP) materials for complex headaches in a student health primary care clinic in New England. A secondary aim focused on improving provider confidence in the management of complex headache disorders. A one-hour educational session was held using a slide deck provided by the American Headache Society's "first contact" initiative for primary care providers. An electronic health record (EHR) template was updated to include EBP features, and prescribing guides were distributed. Pre- and post-intervention surveys were conducted to evaluate perceived effectiveness. A retrospective chart review was performed 12 weeks post-intervention. Providers reported 15 percent increase in documenting

headache frequency, 6.5 percent increase in lifestyle counseling, and 30 percent boost in confidence in managing complex headache disorders. Template usage was 51 percent for all headache visits during the 12-week period. Practice updates and prescribing tools improved provider confidence and perception of EBP adherence. Template usage increased documentation rates, suggesting that EHR prompting may improve outcomes. Future research on integrating multifactorial approaches into education models for primary care is needed to assess the impact of ongoing headache management QI efforts.

62. **Optimizing Hyperglycemia Management of Type 2 Diabetes Through Dietary Counseling: Interprofessional Collaboration Among Graduate Healthcare Students.** *Carli Marino, RN; Lili Martin, DNP, RN, PCCN*
Type 2 Diabetes Mellitus (T2DM) affects 34.2–36.1 million Americans, leading to significant complications and healthcare costs. Dietary modification is a critical component of disease management, helping to prevent or slow progression, yet many healthcare providers lack confidence in counseling patients on nutrition. This project implemented an interprofessional education (IPE) event to enhance the confidence of graduate health professions students in providing Mediterranean diet-based dietary counseling for T2DM.
The intervention included a self-paced didactic module and an interactive IPE event with case-based discussions and hands-on meal preparation emphasizing Mediterranean diet principles. Participants completed pre- and post-event surveys using a modified Clinical Skills Self-Efficacy Scale (CSES). Mean self-efficacy scores ranged between 50-143%, with the greatest gains in adapting dietary recommendations for patients with physical disabilities and addressing economic and cultural barriers. Participants rated the event highly for relevance (9.4/10) and instructional quality (9.6/10), reporting increased confidence in translating dietary counseling skills into clinical practice. This project highlights the importance of interprofessional, experiential learning in equipping future providers with the confidence to implement dietary counseling, a key strategy for preventing disease progression and improving patient outcomes. Integrating similar IPE experiences into graduate curricula may enhance providers' ability to offer effective, patient-centered nutrition guidance.

63. **Reducing Lethal Means Access Through Education and Safety Tools Distribution.** *Leikauskas, Jillian A., Pelski, Jean, Arrowsmith, Ellen, Delaney, Thomas*

Suicide is the second leading cause of death among individuals aged 10 to 24 in the U.S. Lethal means reduction is a key suicide prevention strategy that limits access to highly fatal methods. This project aimed to provide gun locks and medication lockboxes to at-risk patients aged 13 to 24 and to enhance provider confidence in counseling on lethal means access. Over 90 days, medication lockboxes and gun locks were distributed to a naturopathic and a psychiatric clinic. Providers received training and completed pre- and post-intervention surveys. Of the sixteen medication safety toolkits, six were distributed, while none of the sixteen gun safety toolkits were utilized. Distribution was primarily triggered by identifying life stressors. Initial surveys showed that providers were more comfortable discussing medication safety than firearm access. Post-intervention, naturopathic clinic provider comfort in discussing lethal means decreased. In contrast, psychiatric clinic providers reported either increased or unchanged comfort levels. Notably, 93% of psychiatric clinic providers had prior training in lethal means access, whereas none of the naturopathic clinic providers had. These findings emphasize the need for enhanced provider confidence in firearm safety discussions. It also shows the need for repeat counseling on lethal means access trainings to help improve provider comfort. Future interventions should prioritize distributing safety kits based on provider assessments of patients' mental states rather than relying solely on suicide screenings.

64. **Reducing Needle Fear in Pediatric Patients by Implementing an Outpatient "Poke Plan".** *Peier, L, R*

Fear of needles poses a significant challenge in pediatric healthcare, leading to distress and avoidance behaviors. This quality improvement (QI) project addressed needle fear at two Vermont pediatric primary care offices with the primary aim of decreasing anxiety in patients and caregivers during vaccination procedures by 10% and increasing satisfaction with vaccination protocols by 10% on a 10-point Likert Scale. The secondary aim was to increase the clinical staff's satisfaction with vaccine protocols level by 10%. Data was collected through patient, caregiver, and clinical staff surveys with comparison pre- and post-intervention. Personalized "Poke Plans" were given to caregivers of 20 patients, aged 2 to 15 months, where distraction and reward preferences could be chosen. Furthermore, age-appropriate educational materials on vaccines were mailed to caregivers one week before scheduled well-child visits. The primary aim was achieved with a 22.1% reduction in anxiety ratings and a 11.1% increase in satisfaction ratings for caregivers. The secondary aim of improving clinical staff satisfaction with vaccination was not met, rather satisfaction decreased by 11.5%. The findings suggest that personalized "Poke Plans" effectively reduced anxiety and distress in pediatric patients and caregivers during vaccination procedures. The decreased staff satisfaction rating may be attributed to the perceived increased time and effort required to implement the "Poke Plans". The interventions demonstrated potential as valuable tools for reducing needle fear in pediatric patients. Future projects should consider a larger and more diverse sample size, including older pediatric patients, and explore strategies to enhance staff satisfaction while preserving intervention effectiveness.

65. **Sense of Belonging and Wellbeing Curriculum for First-Year Nursing Students.** *Sarnevitz, J, F*
Transitioning to college often presents significant challenges for first-year baccalaureate nursing students, negatively impacting their sense of belonging and wellbeing. Fostering a sense of belonging is vital for academic success, persistence, professional development, and overall student wellness. However, limited formal opportunities for collaboration, teambuilding, and peer engagement contribute to feelings of disconnection amongst first-year nursing students, impacting students' sense of belonging. The purpose of this project was to develop an evidence-based curriculum that fosters a sense of belonging and wellbeing (SBWC) for first-year baccalaureate nursing students at a University in the Northeast and assess its impact on students' sense of belonging and wellbeing. The curriculum integrated evidence-based interventions, that enhanced sense of belonging and wellbeing through activities such as icebreakers, physical activity, and teambuilding exercises. 147 first year nursing students were eligible to participate. A modified University Belonging Questionnaire (mUBQ) summative mean initial score of 83% increased to 85% by week nine of the semester. The Post-Intervention Mini Surveys provided valuable student feedback to inform three Plan-Do-Study-Act (PDSA) cycles. Small group activities and

meet the faculty day were the highest-rated activities amongst survey respondents (n= 90) that enhanced students' sense of belonging, 87.8% and 84.4% respectively. 96.7% of survey respondents (n= 90) indicated that participating in the curriculum was effective in improving their sense of belonging. Qualitative data was overall positive, and the developed curriculum effectively facilitated and maintained high levels of belonging. Further work may focus on refining the curriculum to further evaluate the long-term impacts of this SBWC and associated activities on four-year retention, as well as academic and professional development.

66. **Utilizing AI to Generate Culinary Medicine Resources for Migrant Workers with Chronic Diseases.** *Caculba, M,S; Nagle,R ; Doucet,J*
Latin American migrant workers in Vermont face a critical paradox: they provide essential labor to sustain the state's agricultural economy yet encounter food insecurity and healthcare barriers. This quality improvement (QI) project explored the intersection of social determinants of health (SDOH), chronic disease disparities, and culturally relevant interventions among this population. Latin Americans in the US experience disproportionate rates of chronic diseases compared to average US adult. This QI project aimed to enhance chronic disease self-management among Latin American migrant workers in Vermont by integrating Culinary Medicine (CM), an evidence-based, patient-centered approach that combines nutritional science with traditional medicine. Artificial Intelligence (AI) was used to generate CM resources, which were translated to Spanish for accessibility. This QI project resulted in an n=4, all identifying as Mexican. Chronic diseases reported were T2DM, dyslipidemia, HTN, and fatty liver disease. 75% reported food insecurity. Prior to the intervention, 100% of the participants agreed with the statement of I know the nutritional recommendations to help manage my chronic disease. Post intervention, 50% maintained the same level of confidence, and the remaining 50% either increased or decreased by one point. Notably, 100% of the participants agreed or strongly agreed with the statement I feel more supported with my chronic condition with the resources provided. The majority of the participants agreed or strongly agreed on using the resources in both the short term and the long term. These findings suggest the importance of culturally tailored health interventions for health promotion among Vermont migrant workers.

67. Whole Nurse, Whole Planet: The Intersection of Mindfulness & Planetary Health. *Martin, L.E.; Nagle, R.A.*

Background: Nurses face high stress, burnout, and suicide risk, worsened by the COVID-19 pandemic, impacting both mental health and patient care (Wickstrom, 2023). In response, nursing education standards now require integrating wellness, resiliency, and planetary health into curricula (AACN, 2023). A holistic self-care approach is shown to support planetary health (Prescot & Logan, 2019), and health professionals must address climate change's health impacts on themselves and patients (Howard et al., 2023). Nursing programs must prepare graduates to optimize well-being and manage stress before entering the workforce (Cuccia et al., 2022).

Purpose: To evaluate the impact of a course designed to reduce stress, increase resiliency, and introduce concepts of planetary health among undergraduate nursing students.

Methods: Compassionate Care for Nurses was first offered in Fall 2022 (n=18) and Spring 2023 (n=22) as a hybrid elective. Students engaged in integrative, evidence-based wellness practices such as meditation, mindfulness, yoga, tai chi, forest bathing, and culinary medicine. The course also included reflective discussions on how nurses can contribute to planetary health through personal and professional practices. Pre- and post-course surveys measured perceived stress, resiliency, and course satisfaction. Paired t-tests ($p < .05$) were used for analysis. The project was deemed “not research” by the IRB.

Results: Students began the course with moderate stress and low resiliency. In the fall cohort, stress significantly decreased ($p=.037$) and resiliency increased ($p=.031$). The spring cohort showed similar trends, though not statistically significant. All students reported high satisfaction and would recommend the course.

Conclusion: Integrating wellness and planetary health into nursing education supports student well-being and professional readiness. The course’s success led to two new electives: a graduate-level online course (Cultivating Mindfulness and Compassion, Summer 2025) and a travel study course in Puerto Rico (The Intersection of Mindfulness, Compassion, and Planetary Health).

Communication Sciences and Disorders

68. **A New Screening Tool for Autobiographical Memory Development in Autism.** *Kowalski, K. & Moller, M.*

Background: ABM, the ability to recall personal past experiences, is vital for social cognition, including theory of mind, self-concept, and personal narrative development. Identifying ABM disruptions early can help guide interventions that target these key functions, ultimately supporting social and cognitive growth in autistic children. Our study aims to fill this gap by creating a reliable, easy-to-use tool.

Objective: Our goal was to develop and validate the ABMI-SCREEN, a caregiver-informant tool designed to detect autobiographical memory (ABM) differences in autistic children aged 5 to 18. Currently, there is a lack of efficient screening tools tailored for autism. While some ABM assessments exist, they are not designed for quick administration by caregivers.

Methods: The ABMI-SCREEN was derived from the larger Autobiographical Memory Inventory (ABMI), which contains 128 items. Through statistical analysis of caregiver responses from 79 children (8 autistic, 71 neurotypical), we identified 20 items that effectively differentiated between groups. The final tool requires approximately 10 minutes to complete and demonstrates strong classification accuracy (93.7%), with high sensitivity (87.5%) and specificity (94.4%).

Discussion: Next steps for this project include collecting data from a larger sample of caregivers of autistic children to assess the measure's clinical utility. We also plan to test the stability of the current cut-score (12) for criterion-referenced decision-making and conduct test-retest reliability assessments. However, current limitations include the small sample size of the developmental disorder (DD) group and the lack of reliability measures. With further validation, it could support early identification and intervention efforts, improving social and cognitive outcomes.

Conclusions: Overall, the ABMI-SCREEN shows promise as an efficient and accurate tool for detecting ABM differences in autistic children.

69. **Linguistic and Visual Thinking Styles in Relation to Autistic Traits: A Mixed-Methods Study.** *Peterson, R., Kubinski, S., Coderre, E.*

Background and Objective: The Visual Ease Assumption (VEA) explains the overarching assumption that autistic individuals process visual input more easily than linguistic input. However, recent research has shown that autistic individuals show processing patterns that are similar for both visual and linguistic stimuli even for complex material like narratives. The objective of the present study is to explore the ways in which individuals think to determine if there is an association between autism and visual thinking.

Methods: Fifty participants answered an open-ended question in a discussion-based format that asked about their thinking style. Responses were transcribed and analyzed by two evaluators who coded participants based on their self-identified thinking style (i.e., linguistic thinking, visual thinking, or both). Differences between the self-identified thinking style and the evaluator-assigned thinking style were analyzed for patterns. Evaluators compared the evaluator-assigned thinking style code to the participant's Autism Quotient (AQ) to determine if a correlation was present.

Results: Four main themes and nine sub-themes emerged. There was no significant pattern identified between types of thinking and AQ scores of participants. Several participants reported being one type of thinker, but when probed, a different type of thinking was revealed. Fifteen participants were mismatched in their self-identified code and evaluator-assigned code; twelve participants self-identified as "visual" thinkers, but evaluator-assigned as "both" thinkers. Of these fifteen participants, four had AQ scores that were clinically significant.

Discussion: Despite the assumption that autistic individuals favor a visual thinking style, there is insufficient evidence from this study to suggest that visual thinking is characteristic of autistic individuals. Differences in self-identified and evaluator-assigned thinking styles align with previous literature suggesting a propensity for autistic individuals to believe that they are visual thinkers, despite evidence suggesting otherwise. Future research aimed at uncovering the origin of this idea will illuminate its implications on clinical practice.

70. **Tracing Back the Narrative: An Exploratory Review on the Origin of the Visual Ease Assumption.** *Kubinski, S., Peterson, R., Coderre, E.L.*

Background: The Visual Ease Assumption (VEA) encompasses the idea that pictures are easier to process for individuals who experience language processing difficulties, like many individuals along the autism spectrum. This idea has informed the clinical practice of language intervention and has gained attention in the field within the past several decades. However, recent empirical research has failed to find evidence for this idea. This raises the question of where this idea of "visual thinking" in autism came from in the first place, given its ubiquity but lack of support.

Objective: This scoping review aims to identify the seminal authors who have contributed to the assumption of visual thinking in autism and its rise in traction.

Methods: Given the vast scope of this aim, a cursory review of major authors was conducted. Two recent articles about visual thinking in autism were searched to determine prominent authors and common references. Citations from each article were traced back to the earliest references that mention "visual thinking," "thinking in pictures," "visual processing," and "autism." A search was conducted using PubMed and search terms "visual thinking," "visual processing," and "autism" filtered up to 1995 to identify early influences of related research. These articles and references were reviewed for relevance. Hand searching was performed to search for additional articles pre-1995.

Results: Visual thinking became a prominent topic in the literature after Temple Grandin's publishing of Thinking in Pictures (1995). Studies published post-1995 most often referenced Grandin, citing her anecdotal evidence of visual thinking. Literature published pre-1995 frequently referenced the empirical evidence for spared visual processing skills in autism via block design IQ tests, published as early as the 1970s.

Discussion: Grandin's personal experience, popularity gained as an autistic self-advocate, and the underlying empirical data for visual processing all combined to contribute to the assumption that pictures are easier to understand for individuals along the autism spectrum. Future research aimed at exploring the spectrum of other autistic individuals' thinking styles will support future practice.

71. **A virtual reality paradigm for eliciting social stress responses.** *Adelsberger, A, G; Grossman, M,*

Introduction: Virtual Reality (VR) immerses participants in simulated environments (Rejbrand et al., 2023). It elicits physiological arousal and treats disorders through exposure therapy (Chard, 2022; Owens & Beidel, 2014; Wout-Frank et al., 2024). Our study aimed to determine physiological and psychological responses in a socially stressful VR environment.

Methods: Thirty-nine adults, ages of 18-43 (male=11), participated in this study. Participants were divided into low (M=28.8) and high (M=79.5) social anxiety groups. In a low- and high-stress café environment, an avatar introduced the participant to a group. At this point, all avatars looked at the participant, eliciting high social stress (i.e., head turning event). A 5-item questionnaire assessed anxiety during the high stress condition. Biopac MP 160 (Biopac Systems, Inc.) measured skin conductance levels (SCL). Ag/AgCL electrodes secured to the participant and connected to an EDA 100C amplifier module from Biopac MP 160 system measured SCL. Phasic skin conductance responses (SCR) were recorded in participants after the "head turning event".

Procedures: Participants completed the SPAI (Turner et al., 1989) to establish baseline social anxiety. Electrodes attached to participants measured SCL and SCR. Participants were immersed in lowSTRESS and highSTRESS conditions. Participants then completed the Anxiety-Q.

Results: Preliminary data for fifteen participants showed no change for low social stress participants in meanSCL from the lowSTRESS (M=10.8, SD=4.1) to highSTRESS (M=10.6, SD=4.8) condition. No change in meanSCL was found for the high social stress participants across lowSTRESS (M=10.3, SD=5.2) to highSTRESS (M=10.4, SD=5.5) conditions. The high-social stress group had higher Anxiety-Q scores (M=21.4, SD=10.0) compared to the low-social stressf group (M=12.2, SD=4.8). There was minimal SCL amplitude change between high (M=0.07, SD=0.11) and low social stress (M=0.17, SD=0.22) groups during the head turning event.

Discussion: A discussion will include the implications these findings have on cognitive perceptions and physiological reactions to social stressors.

72. Changing the Narrative on Large-Language Models: Evaluating the Efficacy of ChatGPT when Identifying Components of Traditional Language Sample Analysis to Support School-Based Speech Language Pathologists.

Cannizzaro, M; Martino, A; Holloway, K

Language Sample Analysis (LSA), including narrative structure analysis, is a complicated and comprehensive evaluation tool that Speech-Language Pathologists (SLPs) use to thoroughly assess a child’s language abilities. Narrative macrostructure provides insight into a child's ability to organize stories by connecting events logically and understanding the roles and relationships between characters. However, this process is time consuming and many SLPs are not confident in their ability to successfully use this tool in everyday clinical practice. This study examines the potential of leveraging the power of large-language models (LLMs) into evaluation protocol when conducting LSA. Initially, 5 core narrative episode structure elements were hand coded by two SLP graduate students. The narrative transcripts were first separated into C-Units and then coded for narrative structure (i.e., initiating event (IA), attempts, consequences, resolution). The samples were compared, and consensus was reached by both coders to establish inter-rater reliability. Next, prompts were engineered using ChatGPT to match the accuracy of the hand coded transcripts. Once acceptable alignment was reached between the hand-coded analysis and the GPT engineered prompts, a new set of narratives (15) was submitted to GPT for macrostructure identification. To measure the accuracy and precision of the engineered GPT prompts, assessment of true positive and false positive identification was reviewed. ChatGPT performed best in identifying IAs and resolutions, showing high accuracy and balance between precision and recall. Its performance on attempts was moderate, with equal correct and incorrect identifications, while direct consequences showed the weakest results, with many false positives and lower recall. Notably, lower macrostructure scores indicate that performance declines when accounting for larger volume and error rates in categories like attempts and direct consequences. These results suggest that careful and supervised use of Chat GPT can support LSA and narrative analysis if precautions are taken to create appropriate prompts and the SLP thoroughly reviews the results.

73. **Empowering Autistic Youth and Adults to Advocate for Mental Health and Social Connection Goals.** *Savard, L. B., Prelock, P. A., Medeiros, S. B., Lodestone, A. Z.*

Background: Transition to adulthood is difficult for autistic teens and research shows that quality of life, daytime activities, and access to healthcare plummet after transitioning out of school for these youth, especially if they do not qualify for developmental services1.

Objective: Identify how to support the needs of autistic youth and young adults during the time of transition to adulthood.

Method: We engaged autistic participants, health care providers and families in research discussions to better understand their support and training needs as they transition from pediatric to primary care. Using qualitative analysis of focus groups and interviews, we identified themes specifically related to the social connection and mental health needs of autistic youth in our community.

Results: Six primary themes related to social connection and mental health emerged: 1) help autistic individuals to feel heard and create a safe space for conversation; 2) providers do not have a background in autism and need more training; 3) autistic individuals should have accessible means for communication and conversations with new providers until they feel comfortable and respected for the information they provide; 4) increased access to mental health services and autism-informed counseling; 5) educate and empower autistic youth to advocate for their needs; and 6) facilitate community engagement by increasing awareness of the current services available and offering new additional opportunities.

Discussion: Our results highlight the importance of ensuring that autistic youth and adults have access to neurodiversity affirming practices. Healthcare providers need to understand the double empathy problem that exists when communicating with this population. Communication goes both ways and when breakdowns occur there are usually misunderstandings by both communication partners. Speech-language pathologists have an important role in improving accessibility of healthcare and in promoting community inclusion of autistic youth and adults to support their mental health and social connections.

74. Inferencing During Visual and Verbal Narrative Comprehension in Autism: An EEG Study. *Olivia Ciocca, Devon Kearns, Holly Chappell, Caitlyn Soong, Nicole Sperrazza, Emily Zane, Neil Cohn, & Emily Coderre*

Autistic individuals sometimes struggle with understanding stories told verbally (i.e., through written/spoken language) and visually (e.g., comics). Inferencing abilities help readers interpret implicit information by filling in the gaps between explicit events in both visual and verbal modalities. Autistic individuals sometimes show difficulties with inferencing, which could contribute to comprehension difficulties in autism that should extend to both verbal and visual narrative comprehension. However, no studies have directly compared inferencing in autistic individuals across modalities.

We collected EEG data from 70 participants (mean age=26.5, range=18-65) with a range of autistic traits (measured by the Autism Quotient: M=21, range=4-44) during two inferencing tasks. In the visual domain, participants viewed 6-panel comic strips (normal condition) or 5-panel strips in which the panel depicting the narrative climax was removed (inference condition). In the verbal domain, participants read 5-sentence stories (normal) or 4-sentence stories in which the climactic sentence was dropped (inference). Participants also completed measures of visual language fluency and reading comprehension.

In the visual modality, fluency interacted with autistic traits in late time windows (900-1000 ms). When visual language fluency was high, higher levels of autistic traits showed more negative difference waves; when fluency was low, greater autistic traits were associated with more positive difference waves. These findings suggest increased cognitive effort, though the strategy used differs. A similar interaction between autistic traits and fluency was observed in the verbal modality in earlier time windows (300-400 ms). However, the opposite effect was found where high fluency and greater autistic traits were associated with more positive difference waves, while low fluency and greater autistic traits showed more negative difference waves.

Overall, these results suggest that autistic traits and fluency influence inferencing processes during narrative comprehension, albeit in different ways across modalities.

75. **A Systematic Review of Psilocybin as an Alternative Treatment for Mood and Anxiety Disorders.** *Bellino, K, I; Bluth, L, K*

A majority of the patient population that speech-language pathologists work with is vulnerable to a decreased quality of life and, therefore, is equally susceptible to increased mental health disorders. These individuals are often also diagnosed with depression and anxiety disorders, which can sometimes be treatment-resistant. We searched PsychInfo, PubMed, and CINAHL to find articles discussing the effects of psilocybin as an alternative treatment for depression and anxiety as it relates to life-threatening diseases and diagnoses. Nine articles were examined, and their results suggested that clinical doses of psilocybin positively affect the mental states and perspectives on life in this population. The articles were narrowed down to nine based on inclusion criteria (i.e., participant diagnosis of anxiety disorder or mood disorder; studies were conducted within the confines of a clinical study; published as academic journals; and published in English) and exclusion criteria (i.e., recreational use of psilocybin; clinical trials conducted on non-human subjects; participant having current or previously diagnosed psychotic disorder or an immediate family member with a diagnosed psychotic disorder; and the use of forms of mushrooms other than psilocybe cubensis, also known as "psilocybin-containing mushrooms”). Overall, the quality of these studies was considered weak due to the difficulty of completing double-blind studies when investigating the effects of psychedelic therapy. Future research could examine the longer-term effects of psilocybin on patients who are diagnosed with depression and anxiety disorders. If individuals can receive antidepressant and anxiolytic effects through the administration of psilocybin, it may allow the treatment of their concomitant speech or language disorders to be more effective.

76. **Camp as Connection: Exploring Social Communication in Neurodivergent Youth Through Inclusive Programming: A Systematic Review.** *Miller, Grace; Siewers, Maria*

Social communication difficulties are a characteristic of autism and other neurodivergent profiles affecting a child’s ability to interact with others and navigate social settings. Traditional therapies, such as speech-language interventions and school-based social skills groups, may not fully support skill generalization to real-life settings. Camp-based programs provide immersive opportunities for children to practice social communication through structured peer interactions in natural contexts. This systematic review examines the effects of therapeutic summer camps on social communication in neurodivergent children, primarily those diagnosed with autism. A comprehensive search was conducted using CINAHL via EBSCOhost and Google Scholar, yielding 107 articles, with 15 additional studies identified through reference list reviews. After screening, 12 studies met criteria for inclusion. Studies were included if they focused on camp-based interventions involving neurodivergent children (e.g., with autism, ADHD, Tourette Syndrome, or intellectual disabilities), and reported measurable social communication outcomes using validated tools. Both quantitative and qualitative designs were eligible. Excluded studies were those that did not center on social communication, were not conducted in camp settings, focused on neurotypical populations, or were published before 2002. The included studies used both parent and self-report measures to assess social communication before and after camp participation. Qualitative data from interviews and open-ended survey responses were also reviewed. The overall quality of evidence was rated as fair, indicating moderate reliability. Findings suggest that camp-based programs may support gains in social motivation, peer interaction, and generalization of social skills beyond the camp setting. Reported improvements include better conversation skills and increased ability to interpret social cues. These programs may offer a valuable supplement to traditional interventions, though more rigorous research is needed to confirm these outcomes.

77. **Early Identification and Management of Hearing Loss in Children with Congenital Cytomegalovirus: A Systematic Review.** *Johnson, C., R. V.*
Background: Congenital cytomegalovirus (cCMV) is a leading cause of non-genetic hearing loss in children, often impacting their language development. Early identification and intervention for cCMV-related hearing loss may improve language outcomes, but the extent of this impact remains unclear.
Objective: This systematic review examines how early identification and management of hearing loss in preschool-aged children with cCMV influences language development compared to late or no identification and management.
Methods: A comprehensive literature search was conducted using Google Scholar, PubMed, and the reference section of relevant articles. A

total of 8 studies were selected based on their relevance to the research question. These studies explored approaches to early identification, intervention strategies, and their impact on language outcomes. Studies were included if they involved infants or children with confirmed cCMV infection and sensorineural hearing loss, ranging from mild to profound. Eligible participants had received intervention (cochlear implants, speech-language therapy, etc.). Exclusion criteria included hearing loss due to non-cCMV-related causes, syndromic or postnatally acquired CMV, conductive or mixed hearing loss, comorbid neurological conditions, or late diagnosis. Quality assessment criteria included study design, participant number, selection bias, control of confounding variables, outcome measures used, and the validity and reliability of those measures.

Results: The reviewed studies suggest that early identification of cCMV-related hearing loss, coupled with timely intervention such as hearing aids, cochlear implants, and speech-language therapy, is associated with improved language outcomes. Delayed or absent intervention was linked to poorer language acquisition and communication skills. Different study methodologies and intervention protocols highlight the need for standardized early screening and intervention guidelines.

Conclusion: The findings support the importance of early hearing loss identification and intervention in children with cCMV to optimize language development. Future research should focus on refining early screening protocols and evaluating long-term language outcomes across diverse populations.

78. **Effect of Visual Scene Displays vs Grid Displays on Communication in Post-Stroke Aphasia: A Systematic Review.** *O'Hagan, J. P.*

Purpose: Aphasia is a language disorder which commonly occurs post-stroke that may impact a person’s ability to communicate and comprehend language. High-tech augmentative and alternative communication (AAC) is a common solution for facilitating communication for aphasia patients who interact with others in everyday contexts. The purpose of this systematic review was to examine the effectiveness that two different high-tech AAC layouts, visual scene displays (VSDs) and grid displays, have on improving communication skills for individuals with post-stroke aphasia and what are the individualistic predictors of success that drive one display to be preferred over the other.

Method: Four databases were searched using similar keywords to find studies that measured the communicative impact of grid displays, VSDs, or a comparison of grid displays and VSDs. Inclusion criteria required aphasia diagnosis confirmed by a standardized test and use of high-tech AAC measures. Exclusion criteria were aphasia from dementia or traumatic brain injury, AAC accessed via mobile devices, and studies focused on communication partner's perceptions of persons with aphasia communication ability. Studies were then appraised for quality with the results summarized in narrative and table form.
Results: VSDs support longer, more engaging conversations and are easier to learn. VSDs also support use of maintained spoken language abilities. Grid displays, while harder to navigate, offer more structured, accurate responses and show better real-life carryover. In studies comparing VSDs and grid displays, VSDs are preferred for intuitive use, while grid displays offer more accurate communicative responses.
Conclusion: Research gaps include outdated studies, limited comparisons between fluent and non-fluent aphasia types, age-related access issues, and the effects of concomitant disorders on AAC access. Future studies should use larger, less-biased samples and compare communicative outcomes directly between VSDs and grid displays. Overall, more rigorous research designs are warranted for communicative effects of AAC in aphasia patients.

79. **Childhood Apraxia of Speech Diagnosis Using Objective Testing Measures.**
Giroux, Amy and Chapman, Leah
A lack of clearly defined diagnostic features and valid, reliable assessments as well as an over-reliance on expert opinion remain persistent barriers to diagnosing childhood apraxia of speech. The purpose of this systematic review was to find evidence-based and effective objective testing measures to diagnose childhood apraxia of speech and compare these testing measures to published childhood apraxia of speech assessments to determine how evidence-based and effective these assessments are. 10 studies' data were adapted from a previous systematic review done by Murray and colleagues in 2021. CINAHL, PubMed, and Google Scholar databases were searched using inclusion criteria such as child participants, childhood apraxia of speech diagnosis, objective testing measures, and publication date of 2019 or later. This search revealed 5 new studies, which were quality assessed

using a tool adapted from Murray and colleagues' 2021 review. Data were extracted on the diagnostic accuracy of testing measures, the psychometrics of published assessments, and the subtest content areas of published assessments. The most effective and evidence-based testing measures came from models that combined multiple testing measures. The authors propose that an evidence-based and effective childhood apraxia of speech assessment model will utilize a set of testing measures that covers all six diagnostic categories: stress, segmentation, accuracy, rate, prolongation, and consistency. The DEMSS is the published childhood apraxia of speech assessment with good quality closest to fitting the proposed model. The LAMS and MSAP fit the model the best, but neither have published psychometrics at this time. Future research should focus on determining the best testing measure from each category, finding the most effective and evidence-based model that combines testing measures from each category, and using this research to develop evidence-based and effective standardized childhood apraxia of speech assessments.

80. **Gender Affirming Voice Therapy: A Systematic Review of Effective Therapeutic Components.** *Castagna, A. S., Kawasaki, E. M.*
A major challenge among transgender individuals is voice perception, which is closely tied to identity and safety. Gender-affirming voice therapy helps individuals align their voice with their gender identity. This systematic review examines which components of gender-affirming voice therapy have the greatest impact on quality of life and gender perception among transgender individuals seeking behavioral voice modification.
A systematic search of peer-reviewed literature was conducted using databases including PubMed and CINAHL. Search terms included combinations of "gender-affirming voice therapy," "transgender," "voice modification," "quality of life," and "gender perception." Studies were included if they examined behavioral voice therapy interventions in transgender individuals and reported outcomes related to perceived gender congruence or quality of life. Both qualitative and quantitative studies were considered. Additional relevant articles were identified via Google Scholar. After removing duplicates and applying inclusion/exclusion criteria, eligible articles were synthesized using a narrative approach.

The initial search yielded 30 articles; 12 met inclusion criteria. Studies varied in design and intervention components. Some focused on pitch and resonance training, others on multiple techniques, including nonverbal communication strategies. Most reported improvements in perceived gender congruence and voice-related quality of life. Findings suggest that pitch elevation, resonance training, and nonverbal communication strategies contribute meaningfully to positive outcomes. However, methodological variability and limited sample sizes reduce generalizability. More research is needed to compare the effectiveness of specific interventions and explore long-term outcomes. Clinically, these results support an individualized, affirming approach that integrates multiple techniques to best meet the needs of transgender individuals pursuing voice modification.

81. **Is there maintenance of increased social initiation frequency following peer mediated intervention in children with autism?** *Dykstra, C, R*
Purpose: The aim of this systematic review was to determine if increased frequency of social initiation from peer mediated intervention in children with autism is maintained at follow-up when treatment is no longer being implemented.
Method: I examined four databases including CINAHL, PubMed, PsychInfo, and Google Scholar. Research was selected based on predetermined inclusion/exclusion criteria. This included an individual's age, diagnosis of autism, peer mediated intervention implemented, data for baseline, intervention, and maintenance phases, outcome measure frequency of social initiations, publication between 2000-2024 in English, and quantitative data reported. Articles were excluded if they included participants with co-occurring conditions with autism. Nine articles were selected and consisted of 25 participants. Participants' ages ranged from 3 to 9 years old with 22 male and 3 female participants. Research designs included primarily single-subject and multiple baseline designs. Quality was assessed using the Quality Assessment Tool for Quantitative Studies from the Effective Public Health Practice Project. Quality ratings were based on six criteria including selection bias, study design, blinding, data collection methods, withdrawals and dropouts, and intervention.
Results: The collective results suggest that there may be maintenance effects of increased social initiation frequency in children with autism following peer mediated intervention. While some studies report

maintenance of increased social initiation frequency at follow-up, other studies report regression with decreased social initiation frequency at follow-up.

Conclusion: While there is evidence that overall, there may be maintenance effects of increased social initiation frequency in children with autism following peer mediated intervention, the results of this systematic review are inconclusive. Future research will help to clarify if positive results of peer mediated intervention such as increased social initiation frequency in children with autism are maintained at follow-up when treatment is no longer actively implemented. Additional studies are needed to increase sample size to allow for generalizability of findings.

82. **Multilingualism, Developmental Language Disorder, and Morphosyntactic Performance in School-Aged Children.** *Osborne, J.*

Background & Objectives: The literature on developmental language disorder (DLD) in school-aged children has grown significantly in recent years; however, a gap in the research regarding the effect of language-based intervention for multilingual children with DLD remains. This review aims to compare the impact of multilingualism and DLD against typically developing (TD) multilingual peers.

Methods: Four databases (CINAHL, APA PsycInfo, Ovid, and ERIC) were used to search for relevant studies on this topic, alongside additional search strategies (i.e., Google Scholar and backward citation searching). The search yielded three studies comparing the pre- and post-intervention effects on morphosyntax between multilingual and monolingual children with DLD ("A" Group), three pre- and post-intervention studies comparing multilingual DLD to TD peers, and six cross-sectional studies comparing DLD multilingual children to TD multilingual peers ("C" Group) with 1,120 total participants. The quality of each study was assessed using a modified combination of quality assessment tools to fit the purpose of this review and the study designs gathered from the search.

Results: From the 12 studies included in this review, the data showed that multilingual students with DLD made fewer gains in measures of morphosyntactic performance compared to their monolingual and TD peers with the same intervention. In the identification of DLD in multilingual students, the accuracy of assessment tools to differentiate DLD from TD peers was inconsistent.

Discussion: The present review focused on the impact of multilingualism and DLD on children's morphosyntax and revealed a significant gap in the literature comparing multilingual children to their monolingual peers. Limited data exists to provide a solid conclusion on the most efficacious approaches to multilingual language intervention or assessment with a particular focus on the productive morphosyntax of multilingual children with DLD.

83. **Social Skills Intervention: Effective Interventions for Neurodiverse Adolescents: A Systematic Review.** *Ford, Candace, O*

Purpose: A common characteristic among neurodiverse adolescents is difficulty with social awareness, frequently leading to challenges in effective communication across contexts. It is common practice for these individuals to receive social skills training, often provided by speech and language pathologists. This systematic review aims to evaluate and compare the effectiveness of three social skills intervention strategies: peer modeling, video modeling, and social stories; for neurodiverse children and adolescents aged 11 to 18.

Method: A systematic literature review was carried out by using CINAHL Complete and Google Scholar to search terms for social skills intervention. I reviewed and analyzed the articles for inclusionary criteria, exclusionary criteria, and overall quality. Inclusionary criteria included:1) adolescent neurodiverse individuals, 2) ages 11-18, 3) peer modeling, 3) video modeling, and 4) social stories.

Results: A total of 31 articles were identified and 8 met the inclusionary criteria for this systematic review. Overall, the quality of the studies was mixed (5 high quality and 3 low quality). Outcome measures included questionnaires, teacher reports, and observation of prosocial behaviors. The three strategies were determined to be effective for neurodiverse adolescents, however, there were several limitations such as sample size that were present in each study.

Conclusions: For middle and high school-aged children, three intervention strategies were found to be effective for improving social communication skills: peer modeling, video modeling, and social stories. Across most studies reviewed, participants demonstrated positive outcomes after receiving one or a combination of these strategies. These improvements were often seen in areas such as social engagement, on-topic responses, and competing behaviors in social settings. To strengthen the evidence base, future research should aim to include larger sample sizes and incorporate more comprehensive and standardized methods for measuring progress to determine the long-term effectiveness and generalization of each strategy.

84. **The Efficacy of Behavioral Interventions for Children with Selective Mutism: A Systematic Review.** *Mulcahy, E. M.*
Background: Selective mutism involves the inability to interact in feared or social environments despite communicating in other environments. Because of this, individuals with selective mutism are at risk of being impacted socially without the use of intervention. The purpose of this systematic review is to analyze the current behavioral treatment methods used to increase speaking situations of young children with selective mutism and determine what intervention generates the best results.
Methods: Articles included in this review were gathered using databases such as CINAHL, PubMed, and Google Scholar. Out of 76 articles collected from the search, 21 were screened for eligibility and eight studies were selected for further analysis using acceptability criteria. This criterion includes the study design, preference of an English-speaking population, a participant sample number of 20 or more, a primary diagnosis of selective mutism per the DSM-5 and intelligence quotient over 70, that participants had no previous intervention for selective mutism, follow-up assessment was present, and use of the Selective Mutism Questionnaire, School Speech Questionnaire, and Clinical Global Impression scale were present.
Results: Of the eight articles assessed, seven studies demonstrated an increase in speaking behaviors from participants after the implementation of intervention. Three studies utilizing a behavioral approach had overall higher speaking events post-treatment than studies utilizing a cognitive-behavioral therapy approach or other intervention method. One study was used for information regarding implementation of behavioral therapy but did not provide data.
Discussion: Most articles chosen for review presented positive outcomes, though a specific behaviorally-based treatment protocol yielded the largest post-treatment outcomes. Implications from this review involve the need for increased sample sizes, awareness and development of accessible selective mutism intervention techniques, and information

regarding best practice for speech-language pathologists and other therapists involved in the treatment of selective mutism.

Data Blitz Posters

85. **Mechanisms of EAE modulation by intestinal colonization with Akkermansia muciniphila.** *Peipert, Daniel; Montgomery, Theresa; Krementsov, Dimitry*
Multiple Sclerosis (MS) is autoimmune disease of the central nervous system (CNS) in which myelin-reactive immune infiltration contributes to neurodegeneration and subsequent disability. Various studies have documented elevated abundance of the gut bacteria Akkermansia muciniphila among patients with MS and animal models of MS compared to healthy control subjects, insinuating it may be a risk factor for disease. However, A. muciniphila is widely considered beneficial in various other pathological contexts, and recent studies suggest that A. muciniphila may be associated with reduced disability score in MS. Short-chain fatty acids (SCFAs), a category of bacterial metabolites with immune consequences for the host, are modulated by A. muciniphila and represent a potential pathway in which A. muciniphila may modulate MS. To better understand the role of A. muciniphila in MS, we have generated two distinct microbiome models within C57BL/6J mice with and without A. muciniphila, providing a variety of ecological contexts in which A. muciniphila may behave differently. Using experimental autoimmune encephalomyelitis (EAE) to model MS, we assessed the impact of A. muciniphila colonization on disease severity across microbiome models and identified a microbiome in which the addition A. muciniphila leads to increased disease severity. Exacerbated EAE severity in A. muciniphila-colonized mice was associated with increased Th17 responses and an increased frequency of CNS-infiltrating immune cells. We performed 16S sequencing of fecal samples to identify differences in the gut microbiome by A. muciniphila colonization. We observed a reduction of gut Clostridia, key producers of the SCFA, butyrate, concomitant with A. muciniphila colonization in our microbiome model in which A. muciniphila exacerbates EAE. Likewise, analysis of inferred functional pathways relevant to SCFA metabolism highlighted pathways related to reduced

butyrate production. Taken together, our data contribute to the complex role of A. muciniphila on the severity of CNS autoimmunity.

86. **Feasibility of Automatic Dialog Act Annotation: Adding an Interpersonal Dimension to Clinical Discourse Assessment.** *Heininger, Skyler, C; Grenon, Katie, Ekstrom; Cannizzaro, Michael, S; Jangraw, David, C*
Clinicians who assess and treat cognitive-communication impairments (CCI) encounter discourse level communication problems that are impactful yet difficult to quantify using the standard frameworks. Speech-Language Pathologists require analytic tools and methods that can capture the structures and relationships used in everyday communication, such as conversation, so we can better support people with CCI. Standard practice in language sample analysis often targets content (word level meaning) and syntactic structure (phrase level grammar). This research uses dialog acts (DA) as a conceptual framework to represent conversational elements and the relationships between communicative contributions. For example, statements, questions, answers, backchannels and hedges are categories of DA. Analyzing units delineated by their interpersonal communication functions would add a novel and important dimension to quantitative discourse description.
Our research examines interactional variability during co-constructed communication in conversational stories from the StoryCorps Archive (M 40 minutes) using an open-source computational tool. Automatic segmentation and annotation of transcripts with DA labels was achieved using Żelasko et al.'s "daseg" tool; this Longformer is a machine learning model designed for analysis of "long text" and trained on transcripts with hand-labeled DAs. We compared 610 records featuring a speaker with memory loss to a control group of 6301 records.
We found statistically significant differences ($p < 0.001$) in 35 of 42 DA categories. Conversational stories including people who have memory loss showed relatively higher frequencies of supportive dialog acts, such as questions, backchannel acknowledgements, and clarification requests. These results demonstrate the utility of this analytic framework for clinical discourse evaluation. While the efficiency of the automatic labeling process enabled an analysis that would otherwise be infeasible, it required thoughtful decision making about implementation and interpretation of the tool's outputs and yields an error rate significantly higher than human-

annotated datasets; these limitations impact potential uses and interpretations of analyses using this tool.

87. **"Should I dig my hole? Or do I have a few weeks to dig it?": An Observational Study of Prognostic Communication in Tele-palliative Care.**

Ambrose, N., D.

Background and Objectives: The COVID-19 pandemic accelerated the use of telehealth for palliative care, and the use of telehealth continues to rise due to its many benefits including expansion of access to rural communities. While crucial to quality palliative care, prognostic communication in this environment is underexplored. The purpose of this study is to investigate if and how prognostic communication occurs in tele-palliative care conversations.

Methods: Prognostic communication in this study is defined by both verbal and nonverbal communication regarding any of the following criteria: absence of a cure for the disease, the life expectancy of the individual, the terminal nature of the disease, and discussion of healthcare decisions based on prognosis. This study analyzes two existing datasets of tele-palliative care consultations from two previous studies: the Northern New England Palliative Care TeleConsult Research Study (NNE-TelePC Study) and the Dana-Farber Cancer Institute (DFCI) Pilot Study. Using a qualitative descriptive approach paired with inductive conventional content analysis, this study examined eighteen tele-palliative care conversations to understand what prognostic communication looks like in this setting.

Results: The analysis revealed the overarching theme of "Prognostic communication occurs in tele-palliative care". In this theme, three subthemes emerged: 1) Clinicians and patients use a mix of implicit and explicit language to discuss prognosis; 2) Patients expressed a range of emotions in prognostic discussion, ranging from tears to laughter; and 3) Clinicians used communication strategies to gauge a patient's comfort in discussing prognosis.

Discussion: Study findings shed light on how prognostic communication occurs in tele-palliative care and what this practice looks like in a virtual setting and challenge previous notions that telehealth is not conducive to sensitive conversations. Findings offer insights for future research to focus on effectiveness of prognostic communication in tele-palliative care through in-person comparator groups, patient-reported outcomes, and patient and clinician interviews.

88. **Integrative Health and Wellness Coaching: Bridging Research Gaps for Individuals with Intellectual and Developmental Disabilities.** *Smith, Alyssa, M; Daniels, Sydney, A.C; Pettineo, Sarah, L.; Prelock, Patricia, A.; Westervelt, Karen, C.*
    Introduction: Integrative Health and Wellness Coaching (IHWC) is a holistic, strength-based approach that leverages positive psychology, motivational interviewing, and goal-setting to facilitate health behavior change. Despite its growing application in various populations, there is a significant research gap in its use among individuals with intellectual and developmental disabilities (IDD). This gap is critical, as individuals with IDD often experience poorer health outcomes due to structural barriers, lack of tailored health services, and limited access to trained healthcare providers.
    Methods: Our research team conducted two pilot studies evaluating IHWC among direct support professionals and students with IDD at the University of Vermont (UVM). We employed pre-post quantitative surveys and qualitative analysis of coaching transcripts to explore how IHWC interventions can be adapted for the IDD population. The studies included personalized coaching sessions, group workshops, and hybrid approaches integrating face-to-face and remote coaching.
    Results: Results indicated a statistically significant reduction in perceived stress scores among participants. Qualitative analysis revealed themes describing improved health and wellness experiences for university students with IDD. Positive responses to the IHWC process were highlighted in open-ended survey responses, demonstrating increased engagement in health-promoting behaviors and enhanced self-efficacy among direct support professionals.
    Discussion: Both studies show promise in improving perceived stress scores and providing positive insights into the IHWC intervention process. However, the studies included low participant numbers and demographic heterogeneity, prompting the need for further research to evaluate and refine IHWC interventions for the IDD population. Advancing IHWC research and practice can contribute to a more inclusive and equitable healthcare system for individuals with IDD.