

# **2025 Interprofessional Health Sciences Research Symposium**

**Wednesday, April 30<sup>th</sup> (IHS Rooms 1315/1317)**

## **Digital Poster Session A: 4:30 – 5:20 pm**

### ***Effectiveness of Pilates on Nonspecific Chronic Low Back Pain***

Presentation Team: Amanda Ospina, Julia Smith

Faculty Sponsor: Dr. Angela Lis

**Abstract:** Nonspecific chronic low back pain (NCLBP), which affects 80% of individuals, is defined as pain without a known pathological cause. Pilates, a low-impact exercise, focuses on core strengthening through movements targeting the lower back, abdominals, and pelvic floor while also promoting mental and physical well-being. This systematic literature review aimed at evaluating Pilates's effectiveness in adults with NCLBP for the outcomes of pain and function. After searching the databases of PubMed, Cochrane, PEDro, and CINHAL, one CPG, 12 systematic reviews from the last 10 years and 5 RCTs published after the systematic reviews were included and critically appraised. Risk of bias was assessed using the Cochrane Risk of Bias 2.0 tool. For the outcomes of pain and function, Pilates was found to be an effective intervention at the end of the intervention and short term follow up (< 12 weeks). Additionally, Pilates was found superior to no treatment, usual care, and exercise programs such as: core stability, aerobic, Yoga, McKenzie, traditional physical therapy, and water-based exercise. Overall, there is strong evidence that supports the use of Pilates as an effective intervention for patients with NCLBP.

### ***Evolving perceptions from the healthcare community on artificial intelligence - A systematic review***

Presentation Team: Ryan Liu, MD

Faculty Sponsor: Deborah Deluca, MS, JD

**Abstract:** Introduction: Artificial intelligence (AI) is flawed, but healthcare workers and students are starting to implement it in a post-COVID world where it is available and accessible. Our objective is to recognize the differing perceptions of AI impact on healthcare between different groups in healthcare. Methods: A systematic literature review was conducted on PubMed articles from 1/12020 to 1/31/2025 on healthcare workers/students and attitudes towards AI. Articles were collected via search results using keywords "artificial intelligence, healthcare, job security" and excluded if not in English, not relevant, or provided insufficient data. Results: 45/63 (71.4%) articles held overall positive views on AI in healthcare and 11/63 (17.5%) held mixed views, while 7/63 (11.1%) were negative. Of the 45 articles with positive views on AI, 28 (62.2%) showed notable concerns, including job security, privacy, or lack of empathy in AI programs. The most common greatest concern about AI in healthcare was job security [19/63 (30.2%)], followed by implementation or trust in AI [15/63 (23.8%)]. Interestingly, there was a statistically significant drop in the percentage of articles that viewed AI positively from COVID era (2020-22, 81.0%) to post-COVID era (2023-25, 66.7%) [ $\chi^2$  5.56,  $p=0.0184$ ]. Furthermore, articles focusing on healthcare professionals were more positive about AI (75.5%) than expected compared to articles focusing solely on healthcare students (57.1%) [ $\chi^2$  6.75,  $p=0.00937$ ]. Lastly, articles based in the Western world were less positive on AI (68.0%) compared to those from the non-Western world (72.4%) [ $\chi^2$  21.446,  $p<0.01$ ]. Conclusions: The healthcare community is largely positive about AI, but with some concerns regarding job security, privacy, or implementation.

### ***The Female Physician Assistant Career Experience***

Presentation Team: Julia Poeschl, Meghan McDowell, Angelia Seda, Katelyn Pacheco, Heather Conover, Gianna Gencarelli

Faculty Sponsor: Dr. Abby Saunders, Dr. Vanessa Rodriguez

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**Abstract:** The physician assistant (PA) profession is rapidly growing, with workforce projections estimating a 27% increase over the next decade and a steady rise in graduate applicants each year.<sup>1</sup> Despite women comprising 66.7% of the PA profession, limited research exists on the career barriers they face. This study aims to explore the career experiences of female PAs including the factors of equality and promotion potential in the workplace, compensation differentials, career satisfaction levels, impact on family planning, evolution of attitudes toward the profession and factors influencing retention. Virtual interviews were conducted with 15 female practicing and certified physician assistants (PA-Cs) in New Jersey using standardized questions centered on the factors above. Responses were analyzed and coded using open and in vivo coding to determine overarching themes to highlight commonalities and shared experiences among participants. Of those who faced obstacles (93.3%, n = 14), 71.4% (n = 10) attributed those obstacles to their gender. Most (86.7%, n = 13) participants report gender roles directly impacting their career. Among the twelve participants who were mothers, 83.3% (n = 10) discussed work-life balance and family planning as influencing their careers. Yet, all (100%, n = 15) reported continued satisfaction with their career, particularly with patient care. These findings suggest that, similar to female physician, female PAs experience significant workplace disparities despite comprising the majority of the PA workforce. These conclusions leave more questions to be answered, and future research is needed on the effects of race and environment, such as hospital versus outpatient, on the female PA experience.

### ***Exercise and its Relationship to Major of Study, Personal Barriers, and Education on Exercise Benefits***

Presentation Team: Natalie Grazio, Julia Loeser, Paige Landy, Shannon Morrill, Zoe Lee

Faculty Sponsor: Dr. Christine Fernandez

**Abstract:** Stress is a familiar feeling to everyone, especially college students. Achieving regular exercise on top of other responsibilities can be daunting, even impossible. Current literature suggests that college students with heavier course loads are unable to complete routine exercise and that there are several barriers that prevent students from physical fitness. Our study aims to delineate the factors making it more or less possible for students to exercise routinely. We hypothesized that major of study, barriers to exercise, and knowledge of exercise benefits would affect execution of weekly exercise. We conducted our research through a survey sent to all full-time Seton Hall University students. 267 responses were usable for analysis which was done by one-way ANOVA and Tukey post-hoc testing for each variable - major of study, barriers, and education on exercise benefits - as it relates to hours of exercise per week. Results indicated a statistically significant relationship between exercise and barriers to exercise with schoolwork and personal motivation/desire being the top reported barriers. There was a general decline in mean hours of weekly exercise as the number of barriers increased. There was no statistical significance between exercise and major of study or exercise and education on exercise benefits due to limited sample size. There is need for students to be counseled on management of these barriers and the benefits of exercise to encourage motivation and emphasize health. Further investigation with a greater sample size would allow for determination of significance for the variables of exercise benefits and major of study.

### ***The Effect of Curricular Inclusion on United States Physician Assistant Student Confidence with LGBTQIA+ Health Care***

Presentation Team: Sharil Orellana, Tara O'Donnell, Royce Yimbo, and Camila Lopez-Trujillo

Faculty Sponsor: Dr. Abby Saunders, Dr. Michelle McWeeney

**Abstract:** The LGBTQIA+ community in the United States continues to experience significant healthcare disparities, often driven by inadequate education and training for healthcare providers. While physician assistant (PA) programs aim to cultivate well-rounded clinicians, the lack of a standardized curriculum across the 208 accredited programs leaves gaps in addressing the unique healthcare challenges faced by this population. This study seeks to explore the impact of including LGBTQIA+ health topics in PA curricula on students' self-perceived confidence in addressing these issues. Specifically, we aim to evaluate the

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number of curricular hours dedicated to LGBTQIA+ topics in PA programs nationwide, as well as the measurable effects of this inclusion. Our findings revealed a significant difference between the number of curricular hours spent on LGBTQIA+ topics and students' overall confidence, with a negative correlation between these variables, leading to the rejection of our null hypothesis. Additionally, several factors were identified as significant predictors of students' confidence levels, such as whether participants personally identified with the LGBTQIA+ community or had close connections to individuals who did. However, there were limitations to our study, including a disproportionate number of participants with personal or familial connections to the LGBTQIA+ community, as well as incomplete survey responses. Given the negative correlation observed between the number of LGBTQIA+ curricular hours and total confidence, future research should focus on the quality rather than the quantity of LGBTQIA+ education in PA programs, examining the type and nature of the educational content provided.

### ***Service Member's & Human Performance Enhancement Technology***

Presentation Team: Eric N. Erickson Jr.,

Faculty Sponsor: Deborah DeLuca, MS, JD

Abstract: As the U.S. military prepares for an era of large-scale combat operations, military operations face numerous challenges. One such challenge exists in deploying human-system teams. A critical challenge facing human-system teams is establishing the principles necessary for dynamic interactions between service members, human performance enhancement technologies (HPETs), and advanced intelligent systems. Service members must rapidly adapt their team behaviors to dynamic battlefield events and unexpected threats across various operational environments. The primary objective of this phenomenological study is to elucidate and contextualize service members' knowledge, attitudes, and behaviors (KABs) regarding the current and future use of HPETs in complex socio-technical military environments. This inquiry aims to lay the groundwork for a model that captures service members' KABs of HPETs concerning strength, speed, reaction time, endurance, intelligence, and sleep cycles. Furthermore, it will provide a knowledge base on service members' KABs regarding removable external technologies, implantable technologies, genetic engineering, and illicit and unproven technologies. This foundational knowledge will enable a better understanding of the KABs underlying human-technology interactions within and between teams, facilitating adaptation and overcoming unexpected threats across diverse operational environments. For example, team functioning attitudes about HPETs, team behavior beliefs regarding HPETs, and personal beliefs about individual performance and the need for HPETs all contribute to service members' integration with intelligent systems operating in distributed teams to accomplish mission objectives. Data from this research will facilitate the prediction and optimization of HPET use across a wide spectrum of current and future battlefield conditions. In turn, enabling a better understanding of adaptation to and with HPETs and the respective team behaviors as they engage in dynamic battlefield events or unexpected threats across a wide range of operational environments

### ***Morel-Lavallée Lesion in a High School Soccer Athlete: Level 4 CASE Study***

Presentation Team: Jenna Eivazi

Faculty Sponsor: Dr. Leslie Rippon

Abstract: The purpose of my topic is to bring awareness to an injury that is rarely seen in the athletic population. The case involves a 15-year-old male soccer goalie, who presented with a nodule on his greater trochanter, which was mobile in all directions. After surgical removal, this nodule was diagnosed as a Morel-Lavallée Lesion. The Morel-Lavallée Lesion is a closed degloving injury which tears subcutaneous tissue from the fascia beneath it. The most common mechanism of injury is motor vehicle accidents. However, in sports, the mechanism of injury is direct contact with the ground. Although this injury was not highly painful in this patient, if left untreated in the early stages, these lesions have the potential to expand, become infected, and cause tissue to become necrotic. The case presented helps to educate healthcare

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providers, specifically athletic trainers, about this unique injury and the importance of early physician referral.

### ***Analyzing Imposter Phenomenon in Physician Assistant Students***

Presentation Team: Laura Saenz, Paula Kaczynski, Brigid Dorrity, Eleanor Lang, Maria Sulejmeni, Skylar George

Faculty Sponsor: Dr. Michelle McWeeney

Abstract: Imposter Syndrome (IS) is a psychological phenomenon where individuals feel inadequate despite their skills and accomplishments, often affecting performance, confidence, and mental health. This study aimed to analyze whether IS levels among Physician Assistant (PA) students are influenced by socioeconomic status, gender, and race/ethnicity. A non-experimental study was conducted using an anonymous 20-question Qualtrics survey distributed through PA student-owned Instagram accounts. The survey included demographic questions and the Clance Imposter Phenomenon Scale (Clance, 1985). Multiple regression analysis was performed using SPSS to evaluate the relationship between IS scores and the independent variables. The IS score was calculated by averaging responses on a 1 to 5 scale, with higher scores indicating stronger IS tendencies. The regression model was not statistically significant ( $F = 1.343$ ,  $p = .224$ ), predicting only 5.3% of the variance in IS scores ( $R^2 = .053$ ). However, gender was significantly associated with IS scores ( $B = .339$ ,  $p = .043$ ), with females scoring .339 points higher than males. Race/ethnicity and socioeconomic status were not significant predictors of IS levels. White or European Americans scored .161 points lower than other racial groups, but this finding was not significant ( $p = .143$ ). Low sample sizes for non-white categories may have limited the model's ability to detect meaningful differences. Although the overall model was not significant, the association between gender and IS scores suggests that females may experience higher levels of IS than males. Future research should explore additional factors such as mental health and academic performance, which may contribute to IS. Expanding the demographic diversity of study participants will also enhance the generalizability of findings.

### ***APTA Academy of Pediatrics White Paper on Movement System: Describing the Consensus Driven Systematic Process***

Presentation Team: Dr. Lorene Cobb, Dr. Genevieve Pinto Zipp

Abstract: The purpose of this presentation is to describe the consensus-driven systematic approach used in developing the APTA Academy of Pediatrics white paper on the utility of Movement Systems in pediatric practice. The process entailed three phases. Phase one involved conducting an evidence-based review of the literature. Phase two employed the Modified Delphi Process to establish group consensus on positions presented in the white paper regarding the utility of movement systems, movement diagnosis, and movement analysis of tasks in the pediatric population. Phase three focused on knowledge dissemination via white paper publication and conference presentation. Additionally, the presentation will discuss the impact of white papers in advancing knowledge translation and clinical practice, offer strategies for working in large teams, and provide pearls of wisdom gained when reconciling and addressing differences in journal reviewers' feedback. Lastly, we will discuss the steps being taken to further promote knowledge translation specific to the positions presented in the white paper in order to advance its utilization within the national pediatric community to promote best practices and person-centered care.

### ***Launching a Library-Sponsored Open Access Interprofessional Journal: Lessons Learned***

Presentation Team: Dr. Genevieve Pinto Zipp, Julie Evener, Elisabeth McGee

Abstract: Launching a new peer-reviewed interprofessional, open access journal is a complicated endeavor. In this presentation, we will detail how a collaborative group of librarians and health sciences faculty from across the country partnered to create and launch a peer-reviewed interprofessional, open access journal. We will discuss the journey taken, including the initial conceptual framing of the journal,

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the model for the journal, developmental processes required and achieved, internal and external supports and barriers, and we will focus on sharing the lessons learned. Practical guidelines will be explored to assist others in finding a journal's niche, establishing policies, avoiding predatory journal red flags, building a database of peer reviewers, and marketing the journal and its content.

### ***A Model of Mentoring Health Science Faculty to Actualize University Mission***

Presentation Team: Dr. Natalie Neubauer, Dr. Genevieve Pinto-Zipp

Abstract: Recognizing that faculty actualize a university's academic vision and mission, the Center for Interprofessional Education in the Health Sciences at Seton Hall University piloted a "Health Scientists Actualizing Mission" (HSAM) program in 2023. The HSAM program was developed by an interprofessional think tank of faculty and carried out via Teams for ten sessions during the fall semester to develop interprofessional health science faculty in 1) realizing and carrying out the mission of the University, 2) understanding the Catholic Intellectual Tradition (CIT) and applying it to their field of research and teaching, and 3) gathering the tools needed to develop themselves as health scientist educators in a Catholic university. Ultimately, health scientist educators who participated in the HSAM program provided via open ended responses to a Qualtrics survey that the program enriched their knowledge, confidence, ability, and readiness to prepare health science professional students to actualize the university mission as they practice person-centered health care. This model of mentoring faculty to actualize their universities mission can be adapted and used across institutions and disciplines.

### ***Exploring Healthcare Professionals' Perceptions of Live Actor Avatar and AI Avatar Simulated Patient Interactions***

Presentation Team: Dr. Leslie Rippon, Dr. Lorene Cobb, Dr. Genevieve Zipp

Abstract: Background The increasing use of simulation in healthcare and advancing capabilities of virtual technology have increased the use of virtual avatars in simulation. Additionally, the development of large language models in recent years has created an opportunity for Virtual Reality (VR) simulation through combination of VR and Artificial Intelligence (AI). Objectives This study sought to evaluate the perception of simulated patient case portrayals using Live Actor and AI Avatars. Methods This study employed repeated measures mixed methods research design to assess differences in health professionals' perception of verbal and nonverbal communication between AI avatar and Live Actor Avatar during virtual patient simulations. Quantitative scale data was analyzed using descriptive statistics and frequencies, and differences in perception of patient communication were assessed using a paired t-test. Qualitative data was coded for thematic analysis converged with quantitative data to create a better understanding of the participants' responses. Sample A total of 41 respondents completed participated, and all were health professionals with patient care experience. Results Quantitative and qualitative results suggest that participants perceived the Live Actor Avatar as having a higher degree of authenticity in both verbal and nonverbal communication, with the largest effect sizes seen in displaying emotions and nonverbal communication. Conclusions While current research demonstrates limitations in AI Avatar authenticity compared to Live Avatar simulation, these platforms offer unique advantages in providing consistent, repeatable learning experiences accessible across diverse educational settings. Future research should focus on optimizing AI Avatar authenticity while leveraging their inherent strengths in skill development and refinement.

### ***Supporting Maternal Mental Health in Pediatric Settings***

Presentation Team: Dr. Mara Podvey

Abstract: Occupational therapy practitioners who work in pediatrics necessarily work with families. The family-centered care model is considered best practice as it is widely understood that family engagement supports children's growth, development, and learning (e.g., Fabrizi & Morejon, 2019). Many practice

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guidelines describe how an occupational therapy practitioner can help parents and caregivers in co-occupations and to better support their child to achieve desired outcomes (e.g., Parham, Watling, & Schaaf, 2018), but since mothers carry a significantly heavier burden of child rearing responsibilities when compared to fathers (Haines, 2023), it is important to explicitly recognize that the execution of these supports is completed by mothers. But what happens when the mothers themselves need support to be ready and able to support their children in their parental role? A body of literature is emerging describing occupational therapy's role in addressing challenges, and particularly mental health challenges, faced by mothers and birthing parents during various stages of their children's lives (e.g., Slootjes, McKinstry & Kenny, 2016). When practitioners support these needs, then parents are in the best position to support their children. This poster will discuss common stressors for mothers and birthing parents, as well as threats to maternal mental health (MMH) throughout various stages of their children's lives. This includes the earliest days (i.e., NICU care), medically-based services (e.g., rehabilitation services), educationally-based services (e.g., EI, school-based services), transitions between services, and community-based services. Attendees will be encouraged to share their own challenges and successes with supporting MMH in small groups, and problem-solve how to address MMH while providing services that are focused on their children. Attendees will also be encouraged to reflect upon how to best support MMH in their current areas of practice.

### ***Development, Reliability and Validity of the Occupational Therapy Self-Efficacy of Clinical Competence (OT-SECC) Assessment***

Presentation Team: Lisa Sheikovitz, Alicia MacGregor, Karen Hoover

Abstract: There is a lack of reliable and valid tools available to measure self-efficacy of clinical competence within didactic occupational therapy education. The objective of this presentation is to share the results of a cross-sectional psychometric study that was completed to determine the content validity, test-retest reliability, internal consistency, convergent validity, and factor structure of the Occupational Therapy Self-Efficacy of Clinical Competence (OT-SECC) assessment. Overall, results support the reliability and validity of the OT-SECC. The assessment had good test-retest reliability  $ICC[2,1] = 0.817$ ,  $p < 0.001$ , and acceptable internal consistency across its two factors ( $\alpha = 0.838$  and  $0.923$  respectively). The OT-SECC also demonstrated convergent validity across two administrations when compared to a similar assessment, the Physiotherapist Self-Efficacy Questionnaire ( $r = 0.67$ ,  $p < 0.001$  and  $r = 0.61$ ,  $p < 0.001$  respectively). The findings support that the OT-SECC is a psychometrically sound assessment that may be used by occupational therapy programs to examine students' self-efficacy of clinical competence prior to attending fieldwork.

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## **Digital Poster Session B: 5:30 – 6:20 pm**

### ***Pain Neuroscience Education in Chronic Low Back Pain (CLBP): Evidence of Efficacy***

Presentation Team: Emily Mayer, Hailey Tuohy, Maddie Colombo, Nick Valencia, Lauren Williamson

Faculty Sponsor: Dr. Angela Lis

Abstract: Low back pain is the leading cause of disability worldwide. In 2020, low back pain affected 619 million people globally, which is estimated to rise to 843 million people by 2050. Approximately 20% of acute cases transition to chronic, resulting in substantial productivity losses-264 million workdays annually in the USA alone. Pain neuroscience education (PNE) is a therapeutic approach aimed at teaching patients about the complexity of pain, including neurobiological and neurophysiological processes. The goal is helping patients reconceptualize pain as not just a signal of tissue damage but as a complex experience influenced by biological, psychological, and social factors. This educational approach aims to reduce fear, improve coping strategies, and ultimately enhance function and quality of life. This systematic literature review aimed at evaluating the effectiveness of PNE for the outcomes of pain and function in patients with CLBP. The databases of Pubmed, Cochrane and PEDro were searched from 2015 to 2025. Eligible studies were CPGs, systematic reviews, and RCTs that evaluated the effectiveness of PNE for patients with CLBP. Primary outcomes included were pain and function. Risk of bias was assessed using the Cochrane Risk of Bias 2.0 tool. 6 synthesized (1 CPG and 5 systematic reviews) and 5 RCT studies were included and critically appraised. For the outcomes of pain and function results confirmed that PNE combined with other interventions (physical therapy, manual therapy, exercise, acupuncture) was superior to standard PT treatment or medical management at short term (6wks-12mnths). Similarly, most recent RCTs confirmed a moderate to large treatment effect at long term (>12 months). In conclusion, there is strong evidence that supports the integration of PNE as adjunct intervention for patients with chronic low back pain. Pain neuroscience education must be integrated into the plan of care of CLBP patients, and all health care providers must be trained accordingly.

### ***Accent Modification: What Do Non-Native American English Speakers Actually Think?***

Presentation Team: Valerie Gorsky, Maya Dobrygowski

Faculty Sponsor: Dr. Kathleen Nagle

Abstract: Background: Accent modification is an elective service for individuals aiming to change or modify their accents, with special focus on speech features such as intelligibility. Research investigating the efficacy of accent modification has been focused almost exclusively on perceptual outcomes which represent the listener's perspective. This qualitative study investigates the communication difficulties of non-native American English speakers, their perceptions of accent modification, and their thoughts of sounding like a native English speaker. Methods: We conducted structured interviews with 10 non-native speakers of American English to examine their views on accent modification and their challenges with successful communication. Transcripts were analyzed for common themes, focusing on perceptions of accent modification and their goals as speakers of American English. Results: Data collection is ongoing; two of the twelve questions in our interview were analyzed for this study. Analysis of transcripts to date shows that those who are familiar with accent modification have generally positive opinions. Those who were not familiar with the concept had generally positive opinions when given more information. No participants had received accent modification services or had taken courses specifically focused on pronunciation. The goals of these participants reflected two common themes: (1) striving for perfection and (2) communicative success. Discussion: Motivating factors, such as perfect pronunciation and increased communicative success, varied among participants and highlighted the need for client-centered goals for accent modification.

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### ***Investigating the Impact of COVID-19 on the Preparedness Levels of Graduated Physician Assistants***

Presentation Team: Nada Omran, Javal Patel, Zainab Ali, Martina Binumon John

Faculty Sponsor: Amy Gogtas

**Abstract:** Intro/Purpose: The COVID-19 pandemic has drastically changed healthcare education, bringing about disruptions to traditional rotations with shifts to virtual modes of clinical training and limited students' exposure to in person rotations. We aim to investigate the impact of these disruptions on the preparedness of physician assistant graduates spanning the years 2016 to 2024 in regards to a plethora of clinical skills. Methods: An 18 multiple-choice survey with questions evaluating demographics, clinical training duration, and preparedness in key clinical skills (e.g. suturing, physical exams, phlebotomy) was sent to PA graduates from 2016 to 2024. The Kruskal-Wallis test was performed using SPSS to analyze differences in preparedness levels across various clinical skills based on graduation year and disruptions during clinical rotations. Results: 226 completed surveys were analyzed. Post hoc revealed statistically significant differences in preparedness across various skills, with the graduating class of 2021 reporting the lowest confidence levels in 7 out of 10 assessed skills. Additionally, another kruskal-Wallis test was conducted and revealed that the type of disruption to clinical rotations significantly impacted preparedness levels as well. Graduates with fully virtual rotations reported the lowest preparedness in casting, suturing, and patient education. Those with hybrid rotations had lower preparedness in wound care and treatment planning, while partially cancelled rotations impacted diagnosis and physical exam skills. Conclusion: The COVID-19 pandemic significantly impacted the clinical preparedness of PA graduates, with the class of 2021 experiencing the greatest skill deficits due to disruptions in clinical rotations. By identifying these gaps across various cohorts, particularly those most affected by virtual and hybrid rotations, this study emphasizes the crucial role of clinical training in PA education. These results emphasize the importance of implementing education strategies to better equip future PA students for unexpected challenges

### ***Factors Affecting Postgraduate Specialty Choice of Physician Assistants***

Presentation Team: Julie Karabinus, Allison Deguchi, Victoria Rzaca, Pete Perdikos, Alessandra Tringali, Madeline Burke, Lidia Prusak

Faculty Sponsor: Kimberly Ann Miller, Amy Gogtas

**Abstract:** The growing demand for healthcare providers in the United States has led to an increase in the number of physician assistants (PAs) entering the medical field. This trend, combined with the lack of previous research, has created an opportunity to investigate the specialties PAs choose and the factors influencing their decisions. In this study, an online survey was distributed via Qualtrics Survey Software to currently practicing PAs who were alumni of three different PA programs in New Jersey. Responses were analyzed using SPSS. Logistic regression was conducted to identify the primary factors-anatomy lab, shadowing, and role models-that most influence a PA's choice of specialty. These factors were then further explored using cross-tabulation analysis to examine how they specifically influenced the choice between surgical and medical subspecialties. These findings offer valuable insights into the factors that drive PAs toward specific career decisions, which can assist in the understanding of the experiences PAs have during their graduate years and offer guidance for educational programs.

### ***Exploring the Association Between Social Media Screen Time and Depression Among University Students***

Presentation Team: Samuel Schneider, Hannah Hoffman, Julia Guerra, Jennifer Inman, Carlee Logue, Kelsi Stangl, Jamie Chebuske, Isabella Detrano

Faculty Sponsor: Dr. Vanessa Rodriguez

**Abstract:** This study explores the relationship between social media screen time and depressive symptoms among Seton Hall University students aged 18-29. The research utilizes a cross-sectional survey design to

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assess these variables, using the Patient Health Questionnaire-9 (PHQ-9), a validated and standardized screening tool for depression. Data analysis revealed a significant correlation between higher social media screen time and increased PHQ-9 scores which indicates increased feelings of depression. However, no significant link was found between social media screen time and a prior diagnosis of depression. While past studies have yielded mixed results, our findings will contribute evidence on the mental health implications of social media usage, especially for young adults. Healthcare providers, especially those working with university students, should consider social media habits in addition to their depression assessments. Because this research was limited to depression alone, further studies should explore the impact of social media on other mental health conditions, such as anxiety and eating disorders.

### ***Athletic Recovery with Technology: Massage Guns***

Presentation Team: Elizabeth Clark

Faculty Sponsor; Dr. Jerry Monaco

**Abstract:** Athletic recovery tools are available for all levels of athletes. The purpose of these devices is to reduce delayed onset muscle soreness (DOMS) and enhance flexibility, strength, and range of motion (ROM) post-workout. However, with a crowded marketplace of recovery devices, most notably massage guns, selecting and implementing the most effective tools and protocols remains a challenge. While emerging research suggests that tools such as massage guns may aid in post-exercise recovery, there is still a need for more scientific evidence to establish optimal usage protocols pending the quality of the devices. This study will investigate the impact of a structured recovery tool protocol on key athletic recovery outcomes. According to the literature review, there is evidence that massage guns improve flexibility and ROM in muscles such as the iliopsoas, hamstrings, triceps suralis, and posterior chain muscle group. There are also studies that provide evidence of reduction in muscle soreness and improved muscle strength post-workout. However, in evaluating the efficiency of massage therapy tools to decrease lactic acid buildup, there is conflicting evidence. Despite these findings, a significant gap remains in the research on the efficacy of massage guns for athletic recovery, with a lack of consensus on the most effective application method, frequency, duration, and intensity required to achieve optimal recovery benefits. Therefore, more research is needed to determine standardized, effective protocols that produce reliable, consistent results for athletes. Hence, we propose an additional study that will measure the effects of different massage guns with athletes experiencing DOMS after lower extremity resistance training sessions. This study will investigate the impact of a structured recovery tool protocol on key athletic recovery outcomes.

### ***Exploring the Readiness of Athletic Trainers in Emergency Preparedness Using a Mass Disaster Virtual Reality Simulation***

Presentation Team: Tyler Ha, Jenna Eivazi, Gabriella Santiago, Leslie Rippon

Faculty Sponsor: Dr. Leslie Rippon

**Abstract:** With increasing rates of mass disaster events, it's essential that athletic trainers (ATs) are prepared to respond. The aim of this study was to explore ATs' attitudes, knowledge and their perception of their abilities to respond during these situations, while exploring the use of VR simulation as a training tool. All 8 participants completed the simulation on Meta Quest VR Headset (n=3), PC windows (n=4), and PC Mac applications (n=1), and were assessed, 7 participants filled out the 4 open-ended questions. Several themes emerged from responses to open-ended questions identifying that the VR training supported knowledge of the START triage method, positive attitudes towards disaster training, and improved ability to triage. Responses to open-ended question 1 described the VR simulation as improving knowledge of mass disaster response (n=4) and good practice (n= 3). Responses to open-ended question 2 described their change in attitude toward mass disaster response as the training being helpful (n=5) and appreciating a team approach (n=2). Responses to open-ended question 3 described change in ability to respond in mass

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disaster response as improved (n=5) and no change (n=2). In response to question 4 participants described technical challenges with the PC application (n=3) and Mac application (n=1). Quantitative data collected from the PACT novice observer form (1=poor and 5= excellent) form indicated participants had a median Team Structure score of 3.5, Leadership (4), Situation Monitoring (4), Mutual Support (4), and Communication (4.5). Despite technical challenges, the VR mass disaster training was helpful in increasing participant knowledge and attitudes, while allowing ATs to practice skills that are difficult to replicate in the real world. This simulation reduced the need for physical resources and allowed participants to apply the START triage method and TEAM STEPPS strategies. Further research is needed to assess VR mass disaster simulation as a pedagogical methodology.

### ***How does awareness among US medical providers regarding Antibiotic Stewardship Programs (ASPs) influence their adherence to established clinical guidelines in antibiotic prescription practices?***

Presentation Team: Emilia Lanahan, Natalia Aliotta, Kathryn Carlin, Emma Mircovich, Jahnvi Patel, Yuvraj Raja, Lamiyah Rajai, Sara Seuffert

Faculty Sponsor: Dr. Jurga Marshall

Abstract: Objective: This study examines the relationship between US healthcare providers' awareness of Antibiotic Stewardship Programs (ASPs) and their adherence to established guidelines. Antimicrobial resistance (AMR) is a growing global health threat, and optimizing antibiotic use through ASPs is critical in mitigating resistance. However, the effectiveness of ASPs relies on healthcare providers' adherence to these guidelines, which may be influenced by their level of awareness. A nine-question survey was distributed randomly across many online platforms including Instagram, Facebook pages, and AAPA Huddle for practicing PAs, physicians, NPs, and pharmacists in the U.S. The survey assessed provider familiarity, training, frequency of reference, awareness of ASPs, and adherence to these guidelines. A total of 98 responses were collected. Data analysis included descriptive statistics, one-way ANOVA, and logistic regression. Among the 98 responses collected, 72 were physician assistants, 18 were nurse practitioners, 3 were physicians, and 5 were pharmacists. 50 providers had formal training in ASPs, while 48 did not. Descriptive statistics showed that trained providers had a higher average across all variables: awareness, adherence, familiarity, reference frequency. ANOVA results indicated significant differences in awareness and adherence based on formal training, with trained providers reporting higher levels of both awareness and adherence. Logistic regression analysis confirmed that awareness significantly predicts adherence. Specifically, for each 1 point increase in awareness, the odds of higher adherence increases by 2.5%. By expanding our understanding of these dynamics, we can develop more targeted interventions to optimize antibiotic use and effectively combat AMR.

### ***A Model for Health Profession Students Interprofessional Education Micro-Credentialing***

Presentation Team: Dr. Natalie Neubauer, Dr. Genevieve Pinto-Zipp

Abstract: Interprofessional education (IPE) micro-credentials represent a strategic academic innovation designed to enhance collaborative practice readiness among health profession students. These credentials bridge the gap between traditional educational approaches and the demands of modern healthcare delivery by providing structured, competency-based learning experiences that validate proficiency in essential interprofessional skills. The IPE micro-credential serves as a formal recognition of students' achievement in developing core interprofessional competencies that transcend discipline-specific boundaries. By completing the structured SHMS Journey of Professional Transformation, students demonstrate mastery of the Interprofessional Education Collaborative (IPEC) core competencies through progressive engagement in diverse collaborative learning experiences. This structured approach ensures systematic development of collaborative skills that are increasingly demanded in healthcare settings but often underdeveloped in traditional curricula. This presentation will discuss an IPE micro-credential model that offers multiple academic benefits including competency validation, scaffolding learning, educational

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coherence, motivational framework, and professional identity formation. This IPE micro-credential model represents an academically rigorous approach to validating students' interprofessional competency development while addressing the critical need for collaborative practice-ready health professionals. By formalizing the recognition of these skills through a structured educational pathway, the credential enhances both the learning experience and the market readiness of graduates while supporting broader institutional and healthcare system objectives.

### ***Implementing the 2020 WHO Rehabilitation Competencies Framework (RCF) to advance interprofessional curricula and research opportunities in the academy***

Presentation Team: Dr. Angela Lis, Genevieve Zipp, Jessica Dunn, Dr. Leslie Rippon, Marcia Downer, Dr. Jillian Duff, Jennifer McCarthy

Abstract: Academicians must promote the integration of EBP into Inter-Professional Education (IPE). In 2020 the WHO published the Rehabilitation Competency Framework (RCF), to communicate "expected performance of the rehabilitation workforce across professions, specializations and settings to ensure quality of care and service delivery". The RCF was designed to help stakeholders, accomplish shared competencies and behaviors across rehabilitation professionals. In 2022 the team funded by an OMIC Grant used a mixed-methods approach to explore SHMS faculty, students, and administrators' perspectives regarding current IPE curricula and identified shared learning priorities. A process of "adopting" and "adapting" the RCF to the SHMS IPE initiative was undertaken including "gathering information" and "delineating competencies, tasks and level of proficiency" expected across rehabilitation disciplines. Study participants identified the practice domain as the highest priority for reinforcement during an IPE experience and identified the need to create scaffolded multi-staged simulations (SIM) that would promote case complexity, realism and interdisciplinary collaborations. This project aims to develop and implement a sustainable IPE competency-based SIM that could be integrated into the IPE curricula. Results: A multi-staged case scenario involving eight independent SIM experiences centered around the practice competencies of communication, problem solving, establishing collaborative relationships, and working within the scope of practice, have been designed by an interprofessional team of educators, via consensus and clinician validation. The learning experience requires participants engaging in two SIM, to facilitate feedback integration while increasing case- complexity. Valid and reliable assessment tools were identified to standardize outcome measures across SIM. All learning and SIM materials have been designed and validated. Piloting the SIM is scheduled for later this academic year. Conclusion: A stakeholder model has been used to create realistic, complex IPE SIM scenarios.

### ***Impact of COVID-19 infection rates on pregnancy outcomes and disparities in Florida***

Presentation Team: Dr. Patrick Bernet

Abstract: This study investigated whether county COVID-19 infection rates during the first trimester were associated with adverse pregnancy outcomes and whether those disproportionately impacted Black or Hispanic women. This study used birth outcomes data 2018 through 2022 for four Florida counties. Outcomes were paired with census tract socioeconomic characteristics and with COVID-19 infection rates during the first trimester in the woman's home county. Outcome measures included preterm birth and low birthweight. Multivariate regression was used to test the association between infection rates and all outcomes. A difference-in-difference approach was used to assess the impact of infection rates on racial and ethnic outcome disparities. County infection rates during the first trimester were significantly associated with worse pregnancy outcomes for all women. Each one percentage point increase in COVID-19 cases during the first trimester was associated with a 5.16% increase in the probability of preterm birth, a 4.35% increase in the probability of low birth weight, and a 2.59% increase in the probability of very low birth weight. Compared to White women, each one percentage point increase in cases of COVID-19 during the first trimester caused a 1.21% increase in the probability of preterm births, a 1.57% increase in the

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probability of low birthweight, and a 1.28% increase in the probability of very low birthweight among Black women. While no significant differences were observed in the probabilities of preterm birth and low birthweight between White and Hispanic women, the result revealed that each one percentage point increase in cases of COVID-19 during the first trimester caused a 0.23% increase in the probability of very low birthweight among Hispanic women compared to White women. This study found evidence that local COVID-19 infection rates during the first trimester are associated with worse pregnancy outcomes. The findings also indicate local COVID-19 infection rates during the first trimester exacerbate racial disparities.

### ***Project Transitions: Fostering OT and SLP Student Collaborative Development for Supporting School-Based Transitions for Children with ASD***

Presentation Team: Dr. Mara Podvey, Megan Baumley, Dr. Natalie Neubauer, Dr. Ruth Segal, Dr. Vikram Dayalu

Abstract: School-age children with Autism Spectrum Disorders often experience difficulties with transitions throughout their school experience (e.g., Sefotho & Onyishi, 2001). This includes micro transitions (e.g., from activity to activity, environment to environment) and macro transitions (e.g. from early intervention to preschool, from middle school to high school). A growing body of work addresses certain school-based transitions (e.g. transition to adult life). This poster describes a federally-funded project that helps translate that body knowledge into entry-level education. Project Transitions (PrT) provides interprofessional training to occupational therapy (OT) and speech-language pathology (SLP) graduate students (scholars) to work collaboratively with teachers and parents to support multiple educational transitions for school age children with ASD. Each transition presents children and their families with unique challenges and opportunities requiring specific skills and assistance from educators and related services personnel. PrT scholars are trained to become well versed in their respective roles by gaining knowledge, skills, and competencies in supporting successful transitions for school age children with ASD. The curriculum for PrT is influenced by a comprehensive conceptual framework designed to deliver transition-focused education and services (Kohler, Gothberg, Fowler, & Coyle, 2016), as well as Kolb's experiential learning theory (Kolb, 1984). Project scholars participate in a year-long curriculum, offered by an interprofessional cohort of faculty, that is offered in parallel to their respective graduate curricula including didactic content, hands-on clinical skills training, delivery of transition-focused interventions for school age children with ASD, and providing support and education to their families.

### ***Pathway to Academia: Perception of Occupational Therapy Faculty who Identify As Black, Indigenous, or People of Color***

Presentation Team: Dr. LaMar Bolden, Dr. Victor Comacho

Abstract: Importance: A reflection of the experiences of faculty from underrepresented backgrounds who have been recruited into academia and retained may enhance diversity, equity, inclusion, justice, accessibility, and belonging initiatives, such as pipeline programs, mentorship programs, and outreach. Objective: To explore the experiences and perceptions of occupational therapy educators who self-identify as Black, Indigenous, or people of color (BIPOC) as they navigated the path that led them to academia. Design: A phenomenological descriptive study with semi-structured interviews and a demographic survey. Setting: Academia. Participants: A purposive sample of occupational therapy faculty (N = 17) in the United States who self-identify as BIPOC. Results: Three themes emerged. The first, the journey to academia, describes experiences that sparked the pursuit of a career in occupational therapy and then the transition to academia. This encompasses the subthemes of defining moments, opportunities to engage in teaching, influential factors, and formal and informal mentorship. The second theme, the journey through academia, captures factors that influence job satisfaction, job performance, and retention in academia, with subthemes of belonging and academic culture. The third theme, the role of representation in the profession, describes the impact of racial and ethnic representation experienced on the paths to and

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through academia. **Conclusions and Relevance:** The respondents described distinct experiences of academic culture. These experiences can be applied to initiatives intended to attract more diverse perspectives and ways of knowing into the field of occupational therapy. **Plain-Language Summary:** The findings of this study add nuance to the discussion of the recruitment and retention of occupational therapy practitioners who self-identify as Black, Indigenous, or people of color (BIPOC). Despite strategic diversity, equity, and inclusion efforts, the profession of occupational therapy has failed to recruit and retain a racially and ethnically diverse pool of practitioners that is reflective of the U.S. population. The evidence that explores diversification of occupational therapy excludes the lens of BIPOC occupational therapy faculty. This study explored the reasons that inspired faculty from underrepresented backgrounds to enter the field and led them to work in academia. The findings indicate that these educators were motivated by a desire to influence change in the profession and the wider world and that they were affected by the lack of diverse representation in the field. The social, academic, and financial support experienced by these educators adds culturally responsive nuances to further diversifying the occupational therapy workforce.