

## WSKW Chronicles

### 2021 Conference Abstracts

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#### ORAL PRESENTATIONS, WEDNESDAY OCTOBER 6, 2021

##### **Physical Education Teachers' Online Teaching during COVID-19**

**Minhyun Kim (*Sam Houston State University*) and Boung Jin Kang (*Elizabeth City State University*)**

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Intro: The COVID-19 has spread across the world with alarming speed. This resulted in shifting from face-to-face to online instruction and provoking stress and anxiety for many physical education teachers. Purpose: we examined physical education teachers' perceptions of online teaching during the COVID-19 pandemic. Method: The participants in the present study consisted of four male and four female physical education teachers who were from several different regions of the United States. A semi-structured interview was employed. The following questions guided this study: (a) what are the perceptions of physical education teachers when they are requested online teaching?; (b) what are the experiences of physical education teachers when transitioning from face-to-face physical education to online teaching? and; (c) Did your perspectives change after online teaching? The data were analyzed by open, axial, and selective coding. Results: The following themes emerged from the analysis: (a) Not excited about online teaching: Lack of technological knowledge; (b) Benefits and challenges of online teaching; (c) Main goal: engage in physical activity; (d) Marginalization: physical education is not valued and; (e) Longing for face-to-face physical education. Conclusions: The findings of the current study showed that participants expressed unfavorable perceptions of online teaching during the COVID-19 pandemic. Also the participants looked forward to teaching face-to-face physical education because they missed in-person relationships and interactions with their students.

##### **Examining the relationship between student "pro-activeness" and academic performance: A pilot study**

**Gioella Chaparro (*California State University*)**

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While an online learning environment allows for more flexibility for students, the accountability is higher. The purpose of this study was to examine a relationship between students being proactive about their learning and their academic performance in class. Methods. Sixty-six undergraduate students in a higher division Kinesiology class participated in this study. The class was designed to be synchronous and asynchronous; one week met live on Zoom and the next week students followed the course content on their own in the learning management system. Before the final exam, students voluntarily answered a 10-question survey addressing their level of activity in the class (i.e., taking notes during asynchronous weeks, attending office hours, watching the asynchronous videos, or participating in active learning opportunities). The average scores for each Likert scale question were calculated independently. T-tests were used to examine differences between survey scores and final grades. Results. While there were no significant relationships, there was a trend for a negative relationship between performance and activity level. Surprisingly, it was found that students that reported greater levels of activity were also at risk of failing. Discussion and Conclusions. While these results may be partially discernable, findings can shine light on potential teaching strategies to incorporate to assist students in succeeding in the classroom. Cumulatively, this pilot study provides a foundation for future research to examine larger cohorts with a similar protocol to ultimately examine student needs and teacher capabilities.

**Motivation to Run Boston: Comparing Motives Among Marathoners Using Motivations of Marathoners Scales  
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Marathon running has become one of the fastest growing endurance competitions, with over half a million U.S. participants completing the 26.2-mile race each year. As the popularity of marathons continues to rise among non-professional competitors, more attention is being placed on what motivates individuals to train and compete in a full marathon. Furthermore, very little is known about the motivational differences between the varying levels of performers among the non-professional population, such as the motives that influence runners who train to qualify for and compete in the Boston Marathon. The purpose of this study was to examine the different motives reported among Boston Marathon qualifiers (BQ), those trying to Boston qualify (TBQ), and non-Boston qualifiers (NBQ) in understanding what motives separate the varying levels of performances, as measured by the Motivations of Marathoners Scales (MOMS). This study utilized a quantitative approach, using a basic demographics questionnaire addressing participant background and running history, as well as the MOMS instrument to investigate key motives. Results revealed that all marathoners involved in the study were motivated primarily by achievement and physical motives. Although, key differences in motivation were revealed in achievement and social motives among the BQ and TBQ marathoners when compared to the NBQ population. Understanding the relationship between motives and running performance may help motivate marathoners aspiring to run faster times, such as those who desire to qualify for the Boston Marathon.

**Powered-up and Ready to Collaborate: Making the Most of an Opportunity for  
Undergraduate-Graduate Scholarship and Networking**

**Vanessa Yingling (California State University, East Bay) and Jafrā D Thomas (California Polytechnic State University, San Luis Obispo)**

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High-impact experiences like undergraduate research greatly benefit students, but the COVID-19 pandemic severely constrained ability to provide students with high-impact experiences that expand their academic/technical skills and professional network. Purpose: To create an enriched research experience adaptive to the pandemic, two professors (who first met at the WSKW 2020 Conference) devised a virtual and bi-weekly “joint-session” seminar focused on research and professional development in kinesiology. Methods: Professors trained in two different kinesiology subdisciplines at two California State University campuses ~211 miles apart organized the enrichment program. Sessions were planned during the 2020 winter holiday break. Sessions occurred during the 2021 Winter-Spring calendar. Involved students were from one graduate course on myths that relate to kinesiology and one undergraduate lab group studying communication issues in physical activity promotion material. Prevailing session goals were: (a) expose students to broader topics (b) foster professional community and (c) facilitate “peer-to-peer” teaching (e.g., presentations, feedback). Results: Seven 50-minute virtual sessions were implemented. Experiential outcomes included completion of two case-study assignments, five student-led presentations/discussions, one faculty-led workshop on meta-analysis process and statistics, as well as student experience in critiquing lay material and research articles. Graduate students incorporated feedback/guidelines for lay communication into products of their final project. Undergraduates gained experience presenting and providing constructive feedback within professional settings. Conclusion: Powered-up from the forced pivot to online instruction due to the COVID-19 pandemic, results of this test project demonstrated further potential of video-conferencing-technology to preserve/promote high-impact educational experiences. Future research in this area is warranted.

**Optimizing technology use for distance learning during a global pandemic**

**Shannon Webb, Vanessa R. Yingling, Raneen Abdulkhaliq, Aaron Blevins, Raquel Minor, Dorian Duggins, Nicole Leite, Maria Gonzalez, Maia Tik-Holguin, Ethan Leung, Eric Ma, Daisia Salazar, and Andrea Arrizon  
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Cal State East Bay Kinesiology department focuses on high impact practices. The Dartfish Mentor and Professional Development Program was created to assist students with the learning curve associated with using a video analysis

program, Dartfish, in an undergraduate biomechanics course. During the pandemic, the course relied completely on the mobile device solution, My Dartfish Mobile. A mobile license was assigned to students, they could record videos, edit and upload to Dartfish TV for review from a mobile device. Our Dartfish Mentors also shifted to online mentoring. The program historically included both assisting biomechanics students learn the program as well as working on projects utilizing the Dartfish program. Past projects included work with USA Fencing, the Cal State East Bay Baseball team, content for National Biomechanics Day and training videos on Dartfish analysis tools for biomechanics students. The mentors redesigned their approach using a Tool of the Week model to incrementally expose students to all tools of Dartfish Mobile and a peer mentoring network connecting biomechanics students with one mentor. Qualitative responses from students and mentors suggest that the new approach assists student learning and usage of the motion analysis program in biomechanics.

"I definitely saw students progress in the quality of their videos..."

"Learning to use Dartfish to explain and demonstrate Biomechanical principles was a lot of fun and incredibly useful moving forward as a fitness professional."

The mentors gained skills including leadership and teaching. Biomechanics students mastered a professional tool used by athletes, teams, coaches and health professionals.

#### **Intentional inclusion- A different pedagogical style for pre-service physical education teachers**

**Aubrey Shaw and Sharon Stoll (*University of Idaho*)**

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Research clearly shows that teachers do not feel educationally prepared to teach students with physical disabilities in the regular classroom (Martin, 2018; Rizzo & Kirkendall, 1995). Second, teachers' perceived competency and attitude toward teaching students with physical disabilities is low. Feeling unprepared is directly linked to lack of experience in inclusionary practice in their pre-professional educational program (Martin, 2018). In many states, certification requirements for physical education majors unfortunately can be met with only one class in inclusive physical education, recreation, and sport. Because of time limitations, most often the class focuses on federal laws of inclusion, the different disabilities that one might see as a teacher, and the preparation for the praxis examination for teacher certification. The result is pre-service teachers often have a limited background in inclusionary practice and pedagogy. What would happen if inclusion was integrated throughout the total physical education preparatory curriculum and in every required class? The purpose of this presentation is threefold: 1) to discuss the importance of integrating inclusion into the total curriculum, 2) to offer examples of how to write a curriculum for inclusion and assessment and , 3) to demonstrate the effect of such practice on the pre-service professional's attitude of inclusion and their perceived competency to teach students with physical disabilities (in three pilot studies, data supports a statistical trend that a specific inclusionary pedagogy positively affects pre-service professionals' attitudes to include).

#### **Exploring marketing strategies to engage and retain new and existing participants in golf and tennis after the Covid-19 pandemic**

**Youngseek Kim (*New Mexico Highlands University*), Yongbae Jeon (*Dankook University*), and Hongyoung Kim (*University of New Mexico*)**

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The sport industry has been impacted by the unprecedented COVID-19 pandemic, as most amateur/professional sporting events and seasons have been cancelled/postponed or cut short. However, it has notably led to the boom in certain areas in sports industry: (1) fitness and exercise equipment offline/online markets and (2) outdoor sports. Golf and tennis, because of the socially distanced nature of these sport activities, are the two major beneficiaries of this pandemic. They have shown substantial influx in both participation and the related equipment sales even with the spring lockdowns of the year of 2020. Golf saw a 13.9% spike over 2019 in the number of rounds played at both public and private golf courses. Tennis also saw a 22.4% increase of participation in 2020, which is estimated at 21.64 million active tennis participants after several years of stagnant participation. Investigating the factors which contributed to the growth of these two sports may be meaningful, but the primary purpose of this study is to explore the marketing strategies to engage and retain the

new and current participants in these two sports. The current marketing strategies implemented by the existing two major governing bodies of these sports, United States Golf Association (USGA) and United States Tennis Association (USTA), will be reviewed and compared, and the application of social and media sharing networks will be introduced and discussed as a key marketing strategy.

**Lighting Up The 'Sky: Experiential Learning at a NCAA Championship Event**

**Caroline Faure and Dallin Fryar; Derek Fryar (Idaho State University)**

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Experiential learning is a critical component of sport management student learning and one that can transform the learning process. Not only are students able to apply classroom-acquired knowledge into practical situations, they are also provided the opportunity to build professional networks. Those networks could then assist students upon graduation when they enter a highly competitive job market. This article chronicles the experiences of a group of undergraduate sport management students who were invited to work at a NCAA Championship event, the Big Sky Conference's Men's and Women's Basketball Tournaments. Using Kolb's Experiential Learning Theory (ELT) as framework for understanding, we aim to show how the experience produced optimal learning outcomes for a group of undergraduate sport management students. Specifically, we aim to show how our students benefitted by the contextual application of existing knowledge, through the acquisition of new knowledge, by experimenting with new knowledge, and from a unique opportunity for professional networking. In 2021, this experience was especially valuable because other experiential opportunities for students were limited due to the COVID-19 pandemic and subsequent athletic event attendance restrictions.

**Keynote Address**

***You are not (always) the reference point: Broadening participation  
and increasing effectiveness of engaging students in research***

**Jenny O (California State University, East Bay)**

There is no doubt that faculty are highly invested in engaging students in research. There is also no doubt that our intentions are 'good'; we all want our students to develop and to achieve success resulting from their research experiences with us. The future of Kinesiology is dependent upon our ability to not only maintain, but to adapt and fortify the pipeline to academia and other discipline-related careers to better-reflect the types of students we serve. Higher education (including our field of kinesiology) has, and continues to evolve, reflecting larger scale population and sociocultural shifts and changes. As educators and student research mentors, we need to not only be aware of this, but to act upon it. It is not enough to just passively support the idea of more equitable and inclusive representation in kinesiology careers and research. Every single kinesiology educator and mentor must actively work towards identifying and adapting outdated and biased systems, structures, and cultural norms we have perpetuated - largely at the subconscious level - in our own labs and other student/student-research mentoring practices. Founded by a relatively homogenous group of individuals for a relatively homogenous student population, our kinesiology pipeline to graduate programs and discipline-related careers requires major reconstruction. In this talk, I will use two research-based student development programs and their mentoring approaches to demonstrate several strategies and methods to enable more JEDI-aligned student-research engagement.

**ORAL PRESENTATIONS, THURSDAY OCTOBER 7, 2021****2021 Young Scholar Winner**

**Teaching Inclusive Physical Activity Promotion: Critical Evaluation of One Undergraduate Kinesiology Assignment**  
**Samantha M. Ross (West Virginia University) and Jafrā D. Thomas (California Polytechnic State University, San Luis Obispo)**

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Numerous professional bodies and curricular models in kinesiology call for the development of undergraduates' cultural competency. In short, a culturally competent professional (a) mitigates personal biases from adversely affecting others and (b) is aware of how societal patterns marginalize people (e.g., unquestioned norms; Gill, 2007). The purpose of this article is to examine the potential of one assignment to develop cultural competency among kinesiology undergraduates. The following research question was addressed: could a project on evaluating and creating physical activity messages inclusive to people with disabilities raise awareness of how biases on the part of designers may restrict access to physical activity? Qualitative methods for a descriptive discourse analysis were used. Written reflections of 10 kinesiology undergraduate students from one United States' university kinesiology course (Spring 2021) were described and appraised with Fink's (2013) taxonomy of significant learning. Fink's taxonomy was used to discern if the assignment had promoted cultural competency across six learning domains: foundational knowledge, application, integration, human dimension, caring, and self-determination. Student responses were coded by the first author and verified by the second. Consensus was reached on all discrepancies. Student reflections signaled development of cultural competency across four domains: foundational knowledge ( $n = 9$ ), application ( $n = 3$ ), integration ( $n = 5$ ), and human dimensions ( $n = 6$ ). Developments in the caring or self-determination domains were not evident. The findings indicate potential for the assignment to enhance Kinesiology curricula. As teacher-researchers, we discuss the findings in relation to developing future coursework towards promoting cultural competency.

**2021 Young Scholar Winner**

**Mind your step: Visuomotor adaptations to physical fatigue during a novel obstacle negotiation task**  
**Jacob Hinkel-Lipsker (California State University, Northridge, Northridge)**

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Visual perception of obstacles is of great importance when walking in order to make adjustments to locomotor patterns to negotiate obstacles. When physically fatigued, individuals' ability to use peripheral vision may be hampered—impacting their ability to control limb motion as they clear an obstacle. It is important to further understand these mechanisms in the context of physically-demanding occupations where trips and falls are prevalent. The purpose of this study was to determine relationships between physical fatigue, gaze strategy, and obstacle negotiation biomechanics, and how those relationships are altered due to individual characteristics. Twenty-one healthy, young participants were asked to walk through a completely dark room before and following a bout of moderate to hard-intensity exercise. During this task, obstacles would appear in random locations in their path, requiring them to rapidly adjust their gait to safely clear them. Wearable eye tracking glasses and three-dimensional motion capture were used to quantify gaze and gait biomechanics. Results indicate that when fatigued, participants adopt more conservative obstacle negotiation strategies (e.g., greater hip abduction while clearing the obstacle). These strategies are also predicted by poorer perceptual performance (e.g., slower reaction times). Surprisingly, anthropometric and demographic variables did not predict gaze performance when fatigued, but females were more likely to use a less conservative biomechanical gait strategy. In total, these findings help to reveal how factors such as physical fatigue contribute to alterations in visual perception of one's environment during locomotion, and may help to partially explain physiological mechanisms underlying trips and falls.

**STUDENT POSTER PRESENTATIONS****Research Critiques**

- 1. Effects of Mixed-Circuit Training on Regional Fat**  
**Emma Martinho and Jeffrey Bernard, Ph.D.**  
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(PURPOSE) The purpose of this paper was to explore the possibility of localized lipolysis of subcutaneous adipose tissue through circuit training (Paoli et-al., 2021). This is stimulated by the frequent research surrounding “spot reduction” resulting in inconclusive or conflicting results and the absence of research relating to circuit training to promote local lipolysis. (METHODS) This study utilized a randomized controlled parallel group design where one group (n=7) performed circuit training (SR) for spot reduction while another group (n=7) performed resistance training (RT) 3-times weekly for 8-weeks. Study measurements included BMI, body composition by BIA, and body fat via skinfolds and ultrasound. Statistical analysis was performed using an independent t-test to gauge intergroup differences and a two-way ANOVA with repeated measures to assess the effects of time on training modes. (RESULTS) The primary finding was that SR significantly decreased body mass and body fat percentage while RT did not. Specifically, SR had reduced subcutaneous fat in the abdominal region. (CRITIQUE) The combination of a small sample size and not controlling participant’s nutrition and lifestyle may have impacted this study. Although the researchers attempted to make exercise modalities between the groups identical, physiological metrics were not tracked to ensure this. RT started with aerobic exercise then completed resistance training, while SR integrated endurance and resistance for each session. Thus, it is likely that SR burned more calories from a consistently elevated heart rate which accounted for the positive changes in body mass and “spot reduction.”

(CITATION) Paoli, Antonio, Casolo, Andrea, Saoncella, Matteo, Bertaggia, Carlo, Fantin, Marco, Bianco, Antonino, Marcolin, Giuseppe, & Moro, Tatiana. (2021). Effect of an Endurance and Strength Mixed Circuit Training on Regional Fat Thickness: The Quest for the "Spot Reduction" International Journal of Environmental Research and Public Health, 18(7), 3845. <https://doi.org/10.3390/ijerph18073845>

## **2. Treating Veterans with Post-Concussive Symptoms using Cognitive Symptom Management and Rehabilitation Therapy**

**Adam Funderburg and Gioella Chaparro, Ph.D.**

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Individuals with traumatic brain injury (TBI) experience impairments that negatively affect the transition into the workforce. The purpose of this study was to examine how the use of Cognitive Symptom Management and Rehabilitation Therapy (CogSMART) may alleviate post-concussive symptoms in Veterans to improve quality of life (Twamley et al., 2014). Methods: This was a 12-week randomized controlled-trial where one group received standard employment support while the other received standard employment assistance and additional CogSMART support. The CogSMART techniques were administered once per week for the 12 weeks. CogSMART focused on improving cognitive function through targeting memory, concentration, and task performance. Group differences were analyzed with t-tests, Mann-Whitney U tests, and chi-square tests. Results and Discussion: 34 Veterans (32 ± 7 years) with a history of mild to moderate TBI participated in the study. The CogSMART group demonstrated a reduction in post-concussive symptoms and in psychiatric symptom severity. With this evidence, CogSMART can become a tool to support Veterans with post-concussive symptoms and ultimately assist with transitioning back into the work-force. Critique: The effectiveness of CogSMART cannot be determined due to the small sample size. In addition, 16% of its participants dropped out within the first three months. The overall benefits of CogSMART may also be limited due to the tests being administered by employment specialists instead of a “cognitive specialist.” Future research should focus on the effectiveness of a long-term study and if more benefits of CogSMART will surface with the extended support. Reference: Twamley, E. W., Jak, A. J., Delis, D. C., Bondi, M. W., & Lohr, J. B. (2014). Cognitive Symptom Management and Rehabilitation Therapy (CogSMART) for veterans with traumatic brain injury: pilot randomized controlled trial. Journal of Rehabilitation Research and Development, 51(1), 59–70. <https://doi.org/10.1682/JRRD.2013.01.0020>

## **3. Post-Publication Peer-Review of One Systematic Review Study in Kinesiology: A Constructive Critique**

**Nikki M. Watson and Jafrā D. Thomas. Ph.D.**

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Purpose: To evaluate the utility of one peer-reviewed research publication in the kinesiology and wellness scientific literature, a post-publication article critique was performed. Methods: The 2020 article, “Health Literacy and Physical Activity: A Systematic Review,” was critically appraised between April-May 2021. Two Journal Article Reporting Standards

by the American Psychological Association were used (Appelbaum et al., 2018): Table 1 (quantitative research standards) and Table 9 (research synthesis standards). Criterion fully met was deemed satisfactory (i.e., no partial credit). Results: Per Krippendorff's alpha, our intercoder agreement was moderate for Table 1 (.57, 76% agreement) and poor for Table 9 (.09, 53.6% agreement). A 100% consensus was reached on all discrepancies. The Abstract, Methods, and Discussion sections generally required clarification or more detail, according to both tables. Per reporting standards for research synthesis, the following sections were largely incomplete: Abstract (100%-incomplete), Methods (75%-incomplete), and Discussion (66%-incomplete). Strengths of the write-up included tabular summary of studies included in the literature review (detailed, well-annotated) and a critical commentary on the generalizability of research trends surmised from the literature review. Conclusion: While detail to help the reader understand the scope of the study and logic behind the authors' decision-making was presented, crucial information that would support the quality replication of the study was missing. Moreover, readers were not provided with pertinent detail to adequately assess the credibility of all claims made in the article. The results of this critique should encourage (continued) education on journal article reporting standards for diverse stakeholders (e.g., authors, reviewers, students).

#### **4. Gait Pattern and Hip Muscle Strength Post-Acetabular Fracture Surgery**

**Mia Leccese and Gioella Chaparro, Ph.D.**

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**Abstract:** Open reduction and internal fixation (ORIF) surgery for acetabular fractures results in poor gait patterns. The purpose of this study was to examine changes in an individual's gait pattern and hip muscle strength at 3 and 12 months after ORIF (Kubota et al., 2012). **Methods:** This study examined gait variables (i.e., walking velocity and pelvic forward tilt) and hip strength in ORIF patients. An age and gender-matched control group was used for comparison. Vicon 370 and the handheld dynamometer were used to analyze gait and strength, respectively at 3 and 12 months. Paired and unpaired t-tests were used for within-patient group comparisons and between group differences, respectively. **Results and Discussion:** Nineteen ORIF patients (15 males, 52.5 ± 14.4 years) and twenty healthy individuals (16 males, 50.9 ± 16.9 years) participated in the study. While walking velocity showed little difference after 12 months, patients showed a decrease in pelvic forward tilt while walking and hip abduction strength. This suggests the importance of a rehabilitation program after surgery to improve hip muscle strength. **Critique:** Study strengths include having an age and gender-matched control group and recruiting ORIF patients from three surgeons. Results cannot be generalized because they examined a small sample size with a large age range and underrepresented amount of females. Additionally, there was no control of the at-home exercise program post-surgery. To allow for a more accurate comparison of the results, future research can include a third group that receives additional and focused physical therapy towards affected gait parameters.

**Reference:** Kubota, M., Uchida, K., Kokubo, Y., Shimada, S., Matsuo, H., Yayama, T., Miyazaki, T., Takeura, N., Yoshida, A., & Baba, H. (2012). Changes in gait pattern and hip muscle strength after open reduction and internal fixation of acetabular fracture. *Archives of physical medicine and rehabilitation*, 93(11), 2015-2021.

#### **5. Effects of Animal Assisted Intervention for Pediatric Oncology Patients**

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While the effects of animal-assisted intervention (AAI) on pediatric cancer patients have been examined, the effects on stress, anxiety, and quality of life are limited. Thus, this study examined the impact of AAI on such measures in children diagnosed with cancer and their parents. **Methods:** This was a four-month intervention study which included pediatric cancer patients, who were randomly placed into a control (standard care) or intervention (standard care plus visits from a therapy dog) group. Variables (stress, anxiety, and quality of life) were assessed pre-and post-intervention.

Independent t-tests were used to analyze between group baseline differences and linear mixed models were used to examine changes over time. **Results and Discussion:** 106 patients (3-17 years) participated in the study. There were no significant between-group differences on any measures. While the findings did not result in significant improvements physically or psychologically, the participants reported feelings of reduction of stress overtime. Additionally, parents in the intervention exhibited decreases in parental stress when compared to the control. **Critique:** Because the

intervention group used only one breed of dog (Labradors), the beneficial effects of patient-dog matches were not examined. While the sample size was large enough for a moderate effect size, the short intervention period (4 months, 16 dog visits) could have caused the insignificant between-group differences. Although the study accounted for age as a control variable, the study neglected to take note of the psychological differences between ages. Thus, future research can take this into account for more conclusive and accurate results.

Reference: McCullough, A., Ruehrdanz, A., Jenkins, M. A., Gilmer, M. J., Olson, J., Pawar, A., ... O'Haire, M. E. (2017). Measuring the Effects of an Animal-Assisted Intervention for Pediatric Oncology Patients and Their Parents: A Multisite Randomized Controlled Trial. *Journal of Pediatric Oncology Nursing*, 35(3), 159–177.

<https://doi.org/10.1177/1043454217748586>

## 6. Effects of Different Exercise Therapies on Individuals with Parkinson's Disease

**Anabella Bowers and Gioella Chaparro, Ph.D.**

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Physical rehabilitation is used in patients with Parkinson's disease (PD) to improve their health and alleviate symptoms. The purpose of this study was to compare the effects of strength training (ST), aerobic training (AT), and physiotherapy on the motor symptoms and functional capacity in individuals with PD (Carvalho et al., 2015). Methods: This was a randomized-controlled intervention study that incorporated three rehabilitation approaches (AT, ST, and physiotherapy). Interventions were held twice a week for 12 weeks. Pre-and-post intervention assessments included measures of disease symptoms (Unified Parkinson's Disease Rating Scale [UPDRS]) and functional capacity. Between-group differences were analyzed with an ANOVA. Results and Discussion: Twenty-two patients (45-80 years) participated in this study. While individuals in the ST and AT groups exhibited improvements in UPDRS-III by 27.5% and 35%, respectively, the physiotherapy group had a 2.9% improvement. All groups improved their functional capacity. Results indicate the importance for training programs with controlled intensity, time, frequency for improving disease symptoms and functional capacity in PD. Critique: A strength of the study is the inclusion of the ST and AT sessions which involved controlled overload and intensity progression. Because of the small sample size and large age range, results cannot be generalized and may be skewed. Additionally, because a 12-week intervention might not be long enough to capture the true effects of the rehabilitation approaches, future research should examine a more appropriate intervention length. While ST and AT can lead to improvements in physical health, future research can combine such therapies with pharmacological treatment.

Reference: Carvalho A, Barbirato D, Araujo N, Martins JV, Cavalcanti JL, Santos TM, Coutinho ES, Laks J, Deslandes AC. Comparison of strength training, aerobic training, and additional physical therapy as supplementary treatments for Parkinson's disease: Pilot study. *Clin Interv Aging*. 2015 Jan 7;10:183-91. doi: 10.2147/CIA.S68779.

## 7. The Impact of free weights and machine training on active older adults

**Luke Lovett and Gioella Chaparro, Ph.D.**

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Strength training can help older adults with their functional capacity and falls risk. Thus, the purpose of this study was to examine changes in muscle strength after a machine or free-weight exercise intervention program (Schott, et al., 2019). Methods: This was a 6-month randomized, controlled study. Participants took part in either machine (MT) or a free-weight (FWT) training twice a week for 6 months. Strength (upper and lower body exercises) was assessed with a 10-repetition maximum at pre, 10-weeks, and post-intervention. A MANCOVA and paired t-tests were used to examine the between-group and within-group differences, respectively. Results and Discussion: Thirty-two older adults (66.9, SD: ± 5.5, sixteen in each group) participated in the study. While both groups exhibited overall strength increases, the FWT group demonstrated greater strength increases in leg and triceps strength. Findings can indicate that FWT improvements can assist with preventing falls and improving quality of life. Critique: The methodological strengths of this study include having a large enough sample size for a medium effect size and the length of the intervention. Because the testing tools were the same as the exercise equipment used, results cannot be comparable between the groups. Additionally, while strength is a measure of functional capacity, other measures such as flexibility and balance could also be examined to get a broader analysis. Lastly, while falls risk and functional capacity were the motivation for this study, there were no direct

measures of this; future work can incorporate such measures to examine the direct impact. Reference: Schott N, Johnen B, Holfelder B. Effects of free weights and machine training on muscular strength in high-functioning older adults. *Exp Gerontol.* 2019 Jul 15;122:15-24. doi: 10.1016/j.exger.2019.03.012. Epub 2019 Apr 10. PMID: 30980922.

#### **8. How Robot-Assisted Therapy Affects Upper Extremity Function and Activities of Daily Living**

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While robot-induced passive movement can improve upper-extremity function, the effects of active-resistance robots are unknown. Thus, the purpose of this study was to evaluate the effects of robotic therapy on upper-extremity function in patients with stroke-induced hemiplegia (Min-Jae Lee et. al., 2018). Methods: This was an eight-week randomized controlled intervention study. Individuals with stroke-induced hemiplegia were randomly assigned to an experimental (occupational therapy plus robot-assisted therapy) or controlled group (occupational therapy plus general therapy) and met five times per week. To assess upper extremity function and independence level for activities of daily living, the Fugl-Meyer and the modified Barthel Index were used, respectively. SPSS 18.0 with  $p < .05$  was used for the statistical analysis. Signed rank tests were used to examine measurement changes between the groups. Results and Discussion: Thirty middle-aged patients (19 males) participated in the study. While both groups showed improvements in the upper extremity function and level of independence post-intervention, when compared to the control, the experimental group exhibited significantly greater improvements in all measures. This study was able to prove that patients who experience general occupational therapy with additional training of robot-assisted therapy can improve their independence level and upper-extremity function. Critique: While this study compared two different therapy approaches, including a control group with no therapy, would have strengthened the comparisons. Additionally, because of the small sample size, the results cannot be generalized. For more accurate results, future research should study a larger sample and the long-term effects of robot-assisted therapy.

Reference: Lee M.J, Lee J.H, Lee S.M. (2018) Effects of robot-assisted therapy on upper extremity function and activities of daily living in hemiplegic patients: A single-blinded, randomized, controlled trial. *Technology and Health Care*, 26(4), 659-666.

DOI: 10.3233/THC-181336

#### **9. Effects of Kinesio Tape on Low back Pain in Pregnant Women**

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Due to the added weight of the developing fetus in the abdominopelvic cavity during pregnancy, many women experience low back pain. Because many therapeutic modalities cannot be used on pregnant women, this study examined the effects of Kinesio taping on pregnancy-related low back pain (Kaplan et. al., 2016). Methods: This was a five-day randomized controlled study. Participants were randomly assigned to either the intervention (received paracetamol plus Kinesio taping) or the control (received paracetamol) group. Pain severity and functional ability were measured at baseline and day five, using a visual analog scale (VAS) and the Roland-Morris Disability Questionnaire (RMDQ), respectively. SPSS 16.0 with significance was set at .05 was used for statistical analysis. T-tests were used to examine group differences. Results and Discussion: Sixty-five pregnant women (average gestation: 21 weeks) participated in the study. While both groups reported lower pain levels at day five, the intervention group demonstrated a greater improvement when compared to the control (70% vs 48%). Results indicate that Kinesio tape with paracetamol is an improved treatment for pregnant women with lower back pain. Critique: This was a randomized study and observer-blinded; these were methodological strengths. Limitations of this study include: the small sample size (results cannot be generalized), the short timeframe of the intervention, and the use of surveys as a measurement tool (subjective results can be unreliable). Thus, future research should examine a larger sample size, over a longer time period, and use palpation or brain scans (which objectively assess pain) as measurement tools.

Reference: Kaplan, Ş., Alpayci, M., Karaman, E., Çetin, O., Özkan, Y., İltir, S., Şah, V., & Şahin, H. G.

(2016). Short-Term Effects of Kinesio Taping in Women with Pregnancy-Related Low Back Pain: A Randomized

Controlled Clinical Trial. Medical science monitor : international medical journal of experimental and clinical research, 22, 1297–1301. <https://doi.org/10.12659/msm.898353>

### **Literature Reviews**

#### **1. Direct Measure of How Well End-users Understand Physical Activity Promotion Material: A Road Less Traveled in Kinesiology: Preliminary Findings of a Rapid Systematic Review**

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From a systematic search, only one study was located that directly measured end-user comprehension of a physical activity (PA) promotion material (Thomas et al., 2021, Quest). This is striking, given that study's sample (K = 24) represented more than two decades of peer-reviewed research in kinesiology. Purpose: The purpose of this presentation is to report the preliminary findings of a rapid systematic literature review, which was done to guide the design of a replication study to measure end-user comprehension of a PA promotion material. Methods: Procedures for a systematic search were employed to locate peer-reviewed research articles on the Cloze methodology, which was used in the single kinesiology study of end-user comprehension (Cardinal & Seidler, 1995, Perceptual and Motor Skills). A search term matrix like a PICO Logic Grid was created, then the terms were piloted with scholarly databases (e.g., Pub Med, Web of Science). The final set of terms targeted diverse research articles (e.g., Cloze procedure, systematic review, physical activity, comprehension, readability). To be included, articles must have been peer-reviewed research, written in English, and studied/examined the Cloze methodology vis-à-vis a sample of lay adults and health promotion material. Results: Of the 954 records identified, six met the criteria for inclusion (M publication date = 2003, SD = 14.1). Beyond the Cardinal & Seidler article, no other focused on PA promotion material. Most articles involved nutrition education. Conclusion: This investigation's initial findings suggest little knowledge exists about how well lay adults truly understand PA promotion material routinely given to the public.

#### **2. Depression, Eating Disorders, and Excessive Exercise: A Literature Review**

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The association between depression, eating disorders, and excessive exercise is complex. Researchers have concluded that low self-esteem, anxiety, anxiety sensitivity, and depression, are contributing factors for body dissatisfaction and disordered eating. Eating disorders take different forms and affect men and women differently. People with bulimia nervosa and anorexia nervosa are frequently understood to participate in compensatory eating behaviors and engage in excessive compensatory exercise. Excessive exercise habits paired with eating disorders have been shown to further increase depression, anxiety, dissatisfaction of self-image, and result in a decrease in quality of life. In this literature review, there was agreement that the psychopathology driving these associations needs to be addressed. Depression, anxiety sensitivity, self-esteem, and body imaging are all direct mediators for compensatory and restrained eating. Focusing on these variables may directly address excessive compensatory physical activity behaviors. Mindfulness-based eating awareness training programs, which include meditation practices, breathing exercises, body awareness, eating habits, and healthy foods, have yielded promising results for people with eating disorders. Prevention and treatments must begin with these psychological considerations.

#### **3. Efficacy of Aquatic Therapy for Children with Autism Spectrum Disorder**

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The initial goal of this literature review was to explore the efficacy of aquatic therapy for social and physical skills along with mental well-being for children diagnosed with Autism Spectrum Disorder (ASD) compared to strictly land-based therapy. A total of 10 sources were detailed in the literature review, gathered from the Martin Luther King Jr. library at San Jose State University. The review focused on four topics on the efficacy of aquatic therapy: physical skills, social skills,

mental well-being, and aquatic therapy combined with land-based therapies. Physical skills had significant improvements in and out of the water, specifically in water safety skills and jumping. (Alaniz et al., 2017; Battaglia et al., 2019; Caputo et al., 2018; Scott et al., 2020). Social skills garnered positive results, including better communication and social interactions (Mortimer et al., 2014; Sourvinos et al., 2020; Moseley, 2020). Mental well-being improved, with an increased quality of life and emotional health (Mills et al., 2020; Güeita-Rodríguez et al., 2021; Moseley, 2019). Lastly, aquatic therapy combined with land-based therapies had significantly better improvements for all therapy groups (occupational, recreational, and speech therapy) involved with aquatic therapy intervention compared to the control (strictly land-based) groups (Scott et al., 2020; Alaniz et al., 2017; Sourvinos et al., 2020). In conclusion, the goal of the literature review was achieved because nearly every article displayed positive changes across all skills. Moving forward, standard therapies should incorporate aquatic therapy into their regimen or attempt a standalone therapy. Additionally, a standardized aquatic therapy system should be created.

Keywords: Autism Spectrum Disorder, aquatic therapy, Halliwick therapy, water therapy, hydrotherapy.

#### **4. The Effects of COVID-19 on Vascular Function in Young Adults**

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Introduction: COVID-19 is a detrimental virus that has significant effects not only to the respiratory system, but also to cardiovascular function even in individuals without pre-existing conditions. Increased arterial stiffness is an independent risk factor for the future cardiovascular diseases. However, it is not well studied if COVID-19 has detrimental effect on vascular function in young adults. Purpose: To summarize the effects of COVID-19 on arterial stiffness in young adults. Overview: Recent literature found that COVID-19 accelerates vasculature aging in young adults who are fully recovered from COVID-19. Ratchford et al., (2021) found altered endothelial function by reduced brachial artery flow mediated dilation (FMD), lower femoral artery hyperemic response, and increased carotid-femoral pulse wave velocity (cfPWV) as early as 3-4 weeks from a COVID-19 infection. Vasculature alterations were further evidenced in observations of reduced carotid compliance and distensibility along with greater aortic augmentation index (Aix) in (Szeghy et al., 2021). In addition, reduced maximal aerobic capacity (VO<sub>2</sub>max) was found in 19% of recent COVID-19 recovered young military recruits (Crameri et al., 2020) which may be indicative of COVID-19 induced vascular dysfunction as evidenced in these studies. Considerations: It is concluded that there is significantly altered vascular function in asymptomatic or mild symptomatic young COVID-19 recovered individuals. These findings are alarming because COVID-19 may increase risk of premature cardiovascular disease even in younger individuals who were otherwise a low-risk of cardiovascular disease prior to COVID-19 infection. Longitudinal studies are needed to determine if unfavorable cardiovascular conditions continue or increase over time.

#### **5. Feasibility and Benefits of Active Rehabilitation on Individuals Who Have Suffered a Concussion**

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The goal of this literature review was to analyze peer reviewed articles to assess if active rehabilitation was safe and provided more benefit than rest for individuals who have experienced a concussion. Eleven peer reviewed sources were cited and sourced from San Jose State University's Martin Luther King Jr. Library. The populations studied included children, adolescents, and young adults; with more focus on adolescents, who experienced a concussion. Findings indicated that active rehabilitation was safe and may be beneficial in reducing postconcussion symptoms (Dobney et al., 2020; Hattrup et al., 2020). Strict rest was of no additional benefit than standard care (Thomas et al., 2015). Specifically, adolescents prescribed with aerobic exercise recovered faster than adolescents prescribed with rest or placebo-like stretching (Leddy, Haider, Ellis et al., 2019; Leddy Haider, Hinds et al., 2019; Willer et al., 2019). Individuals who were slow to recover from concussions benefited from active rehabilitation regardless of when it was applied (Dobney et al., 2018; Imhoff et al., 2016; Kurkowski et al., 2017). Positive psychological benefits were observed for slow to recover concussion subjects participating in active rehabilitation (Gauvin-Lepage et al., 2020). To conclude, the implementation of active rehabilitation proves safe and can be beneficial. It is recommended that active rehabilitation is prescribed for concussions in favor of the traditional treatment of rest.

## 6. Tempo strength and conditioning applications on stroke patients

**Christopher Okonji and Matt Crockett**

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Stroke is the second leading cause of death, and only five percent of patients are successfully treated (Cramer, et al. 2017). Within the five percent, most live with long-term physical handicaps or disabilities. With six million Americans suffering from the physical side effects of stroke, innovative modalities and research in improving quality of life is imperative (Cramer, et al. 2017). Physiological adaptations to strength training have been proven to improve functional production of general health and aspects of daily living (Zavanela, et al. 2012). Variations, innovations, and manipulations of strength training practices have been created to improve efficiency. Cal Dietz Triphasic Training, utilizing tempo manipulation elements, has been used in various rehabilitation studies to improve patient stroke recovery. This literature review objective will be to examine aspects of strength training tempo manipulation applications towards post stroke recovery.

### **Original Projects**

#### 1. **Get Fit! Stay Fit!- A student-led program for Physical activity promotion.**

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Exercise Is Medicine On Campus (EIM-OC) is an initiative through the American College of Sports Medicine to promote physical activity (PA) for members in the campus community. Students, staff, faculty, and health care providers on campus, collaboratively participate to make PA a priority and a part of daily campus culture. The Kinesiology Department at California State University, East Bay (CSUEB) participates in EIM-OC led through the Get Fit Stay Fit (GFSF) student program. Through the EIM-OC initiative and GFSF, university health care providers assess PA behaviors as part of routine patient care and refer patients to student health-fitness specialists for individualized exercise prescriptions. Students in GFSF use evidence-based exercise programming to support CSUEB employees to meet their PA and exercise goals, thus enabling them to apply their education in a professional setting to promote healthy PA behaviors. EIM-OC provides a platform for GFSF to expand the community reach with PA opportunities associated with health benefits. Here, we present the student-led structure and programs that enabled CSUEB to maintain EIM-OC Silver Status through the COVID-19 pandemic. During the pandemic, GFSF initiated and led remote training sessions, continued engagement through social media, and implemented a virtual 5k run/walk. As part of the efforts to reach Gold Status in 2022, GFSF-EIM-OC will be hosting a group exercise session, and Fun Run/Walk for attendees during the mornings of the 2021 Annual Conference of the Western Society for Kinesiology and Wellness.

#### 2. **Persevering Through Adversity: 3 WINS Fitness Combats COVID-19 Challenges**

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3 WINS Fitness is a free nationally recognized exercise program delivered by Kinesiology students from California State University, Northridge (CSUN) that caters to primarily underserved communities throughout the San Fernando Valley (SFV). Operating without external funding since 2011, the program has proven to be sustainable and replicable. The structure of the program is designed to give students the opportunity to apply in-class knowledge in a real-life setting. This translates to engaging participants of all fitness levels in 60 minutes of moderate-to-vigorous physical activity (MVPA) 3 days/week. In doing so, participants fulfill the current 2018 Physical Activity Guidelines (PAG) for both aerobic and muscle strengthening. Collectively, the program aims to build healthier communities to combat the growing physical inactivity rates. When COVID-19 forced the closure of our 6 park locations, we pivoted and developed a virtual program, 365 Journey to Health (365 JTH). By using various online resources and creating partnerships with experts in varying fields of Kinesiology, we expanded participant engagement beyond the SFV. Despite the need to socially distance, 365 JTH has allowed for a more personable experience for everyone involved and continues to improve participants' health. Even

through these changing times, the 3 WINS student-led university model has become versatile and can be adopted to take on an in-person, a virtual, or a hybrid approach. We have published a Call to Action for Kinesiology/Exercise Science Departments across the United States to own the physical inactivity pandemic and create innovative sustainable programs to increase population physical activity.

### *Original Research*

#### **1. Physical Education Graduation Requirements in Oregon's Tertiary Institutions**

**Alexandra Szarabajko, Veyda J. Campos-Hernandez, and Bradley J. Cardinal  
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Physical education requirements (PERs) help college students develop personal awareness and responsibility regarding healthy lifestyle choices. Reflective of this, the majority of colleges and universities in the U.S. throughout the 20th century developed and implemented PERs; however, in the early 21st century, they dropped to an all-time low of 39%. Since their all-time high of 97% during the 1920s/1930s, a downward trend has been observed. This is especially concerning, as physical activity behaviors tend to decline while weight gain and psychological distress tend to increase during college, setting a trajectory of unhealthy patterns in adulthood. The purpose of this study was to examine the current status of PERs in Oregon's 2-year and 4-year institutions (N=35). Results showed that only 14.29% (i.e., 5 of 35) of Oregon's institutions fully required PERs, while 28.57% (i.e., 10 of 35) did not require PERs for graduation. The majority of the sample (57.14%; i.e., 20 of 35) partially required physical education courses, meaning that not all degrees offered at the institution listed a PER or it was an option among a list of choices. Whereas all 2-year colleges required partial (n = 17) PERs, the majority of 4-year institutions did not require PERs (n = 10). Overall, there is an urgent need for updated state and national data on the status of PERs in U.S. colleges. Such data could help those in Kinesiology and other wellness-related disciplines better advocate for the continuation of PERs and/or to understand the factors associated with their successful continuation.

#### **2. Development and Validation of the Sports Management Values Inventory (SMVI)**

**Amanda C. Palmer, Ariel Bencomo, Nathan Stark, and Sharon Kay Stoll, Ph.D.  
(University of Idaho)**

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The Commission on Sport Management Accreditation (COSMA) currently requires courses with ethics components for sport management programs seeking accreditation. Currently no validated and reliable instrument for measuring ethical decision making in students enrolled in these courses exists. The purpose of this study was to develop and validate a reliable instrument to measure the impact of courses with ethical components on ethical decision making in students enrolled in COSMA-accredited programs. We sought to determine to what degree the Sports Management Values Inventory (SMVI) meets acceptable standards for reliability and validity in the population of interest. During instrument development, the researchers crafted scenarios based on the conflict between moral values and social values. The instrument was tested using pre- to post-test administration with four groups of students (N1 = 45; N2 = 45; N3 = 23; N4 = 3) enrolled in a sport ethics course or course with sport ethics component. Two comparison groups of students (N1 = 24; N2 = 12) took pre and post-tests to evaluate test-retest reliability. A final group of students (N = 175) completed the instrument once. Results from all participant groups confirmed strong internal consistency with high Cronbach's alpha scores (range = .686 - .865). Paired samples t-tests indicated test-retest reliability after nine weeks was acceptable ( $r = .774, p = .004$ ). Evidence for content validity was obtained through expert review and mean scores comparisons between items. The SMVI appears to be a valid and reliable instrument for measuring ethical decision making in sport management students.

**3. Why College Age Students Want to Be a Coach: A Qualitative Investigation**

**Corbin Stringam, Keven Prusak, Ph.D., and David Barney, Ph.D.**

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Shane is father of six kids all under the age of 15, he is passionate about teaching and coaching. For the last 10 years he has spent countless hours after school coaching high school volleyball. His coaching requires a multitude of other responsibilities that takes away from family and friends, and put other aspects of his life on hold. Thus, the question may be asked, why does he like coaching? Many college students majoring in Physical Education Teacher Education (PETE) have desires to coach a school team where they are teaching. Coaching can be a very rewarding component for these college students. The purpose of this study was to investigate college students desire to become a coach. For this study, 29 college students (8 males & 21 females) were interviewed. Data was collected and after the researchers read the interviews themes came forth during analysis. Generally, it was learned that college students wanted to become coaches because of previous positive experiences they had with their coaches, that the college students wanted to be a positive influence in their athletes lives and they felt that being a coach was good method to pay back to the sport they loved.

**4. Understanding the Barriers That Limit the Hispanic Population From Receiving Healthcare: A Qualitative Study**

**Denver Dodson, JongHun Sung, and Karen Appleby**

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With the growing Hispanic population within the United States, providing proper healthcare to the Hispanic population, especially in rural communities, is a growing challenge facing the modern healthcare system. Consequently, these communities often suffer through illnesses and diseases that could be treated or even prevented. Unfortunately, barriers such as language, tradition, insurance coverage, and environmental factors limit many Hispanic individuals from receiving adequate healthcare. Often, these barriers are not fully understood or addressed within the US healthcare system. The purpose of this research study is to gain an in-depth understanding of the barriers that limit the Hispanic population within the United States from receiving adequate healthcare and to identify potential solutions. To investigate these barriers, a qualitative semi-structured interview study is currently ongoing with 10 health care professionals who provide medical service to Hispanic individuals. In addition to the healthcare providers perspective, 10 Hispanic individuals will also be interviewed to better understand from the patient's perspective about the healthcare barriers. Preliminary findings from two interviews of local physicians indicated that there are three major barriers Hispanic patients confront when seeking healthcare: trusting the provider and healthcare system, language barriers, and social determinates of health (e.g., financial limitations, lack of insurance, etc.). Although these are preliminary findings, the results may help healthcare providers better understand the healthcare barriers that their Hispanic patients face. These findings should be considered for integration into healthcare providers' practice to better serve their Hispanic patients.

**5. Exploring transgenders' athletic participation**

**Hongyoung Kim<sup>1</sup>, Jeongwon Choi<sup>1</sup>, and Yongseek Kim<sup>2</sup>**

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Since the enactment of Title IX of the Education Amendments of 1972, educational institutions in the United States have strived to prohibit gender discrimination and provide gender equity in educational settings. As society changes and embraces gender identity, transgender population has arisen as a hot controversial issue in athletic participation. In sports, participation has been categorized in a binary approach either boys/men or girls/women. Hence, the meaning of gender equity in compliance to Title IX has become a controversy and legal interpretation differs from state to state. Purpose: The purpose of this study was to provide an in-depth understanding of transgenders' athletic participation in accordance with Title IX and state law application in both high school and collegiate athletics. Methods: To better understand about this phenomenon, precedents, relevant federal and state laws, and sport organization and governing bodies (e.g., NCAA, high school athletic association, and NFHS) policies were systematically reviewed. Results: State of Tennessee's SB 228 and HB3 bans transgender student-athletes participating in athletics under gender identity, and do not allow making changes of one's gender on birth certificate. However, in the State of Idaho where Idaho also bans

transgender participation, court has ruled that banning transgender participation is discriminatory. Also, Biden Administration supports transgender participation. Conclusions: It was found that there are controversial issues in relation to Title IX and transgender participation. To make our society more diverse and inclusive, we need to develop clear guidelines that are non-discriminatory in both federal and state level.

**6. Motivational and Psychological Impact of COVID-19 on Collegiate Athletes**

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COVID 19 has a mostly negative effect on sport industry, collegiate athletes were not an exception of this pandemic. Collegiate athletes were also highly affected by this pandemic. Due to this unforeseen circumstance, the NCAA has granted a one-year extension of eligibility to collegiate athletes. This might be an appropriate response by the NCAA, but in reality collegiate athletes had to undergo many difficulties not only self-training and maintaining physical conditions for their athletics but taking online courses with very limited support by the athletic department. Thus, the purpose of this study was to explore collegiate athletes' challenges during the pandemic, in regards to academic and athletic motivational perspectives and mindset. Methods: This study used a qualitative approach to explore and understand participants' in-depth thoughts on the topic. A total of 13 current collegiate athletes were recruited for semi-structured interviews. All the interviews were recorded and transcribed through zoom. The collected data was coded and thematically analyzed using a qualitative data analysis software, NVivo. A three-found coding process has been applied to collapse the codes to meaningful categories and narrowed them down to the final themes. Results and Implications: The data analysis resulted in three distinct themes: 1) Lack of motivation for both academics and athletics: 2) Mental and emotional difficulties: 3) Plans for transition out of college career. It is hoped that this study will provide important information for both academics and practicum.

**7. The Colonial Legacy of Sports: Physically Recreating Asian American men**

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Asian American Studies and Kinesiology largely focuses on the assimilation of Asian American athletes through physical activity<sup>1</sup>. However, this research paradigm perpetuates the universality of Western sports as a socializing agent for American society and it simply reimagines America's civilizing mission of 19th century colonial Asia. Therefore, the purposes of this study are: 1) to deconstruct Western sporting modernity by shifting the perspective away from the assumed utility of physical activity as a socializing agent, and 2) to reexamine the relationship between Asian Americans and American society through sport. Methodology: Through semi-structured interviews, the narratives of 8 Asian American men were cross analyzed with historical discourses around Orientalism and Postcolonial criticisms. These questions were focused on understanding what informed one's opinions toward diversity and America's competitive sporting culture. As a result, the participants shared their understandings around the positionality of the Asian American and the All-American athlete. They also detailed an awareness towards the intersections of race, masculinity, and transnationality in sports. Notably, seven of the participants justified the lack of Asian American diversity in sports being due to the biological disadvantages of their race. Altogether, the participants demonstrated a neoliberal and post-racial understanding of how American society treats its athletes. Conclusion: While the participants of this study cannot be generalized to a broader population, their narratives highlight the need to reimagine the role of sports beyond youth development, and within the intersections of race, gender, and national identity.

**8. Kinematics Comparison of Squat (2D versus 3D analysis) for Asynchronous Laboratory – A Pilot Project**

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Bodyweight squats are a common exercise in athletic training and rehabilitation due to their biomechanical and neuromuscular similarities to fundamental movements in a variety of sports and their requirement of major joints and numerous muscle groups coordination. (Schoenfeld, 2010). Therefore, it is essential that kinesiology students, whose

future careers often include athletic training and rehabilitation, learn how to analyze the kinematics of a squat. While three-dimensional (3D) movement analysis is considered the gold standard for motion capture (Chung, 2012), two-dimensional (2D) digital video analysis is more commonly chosen in education environments to provide hands-on experience. Some studies have investigated the differences between 2D and 3D analysis of squats (Escamilla et al., 2001; Krause et al., 2015; Schmitz et al., 2015). This study aims to compare 2D and 3D measurements of narrow-stance squat while enhancing learning by engaging students with hands-on experience using free, open-source software. Nine healthy 18 to 54-year-olds (6 females, 3 males) participated in this pilot project. Following proper COVID safety guidelines, 2D analysis was performed by undergraduate students at home while 3D analysis was performed in the gait laboratory at San Francisco State University. Statistical significance was found when comparing the differences between 2D and 3D measurements, except for hip flexion. The resulting angular and linear measurements from both 2D and 3D analyses aligned with previous research, suggesting that 2D digital video analysis is a feasible option for educational purposes despite the statistically significant differences.

#### 9. **Reading Grade Levels of Physical Activity Promotion Material: Preliminary Findings of a Meta-Synthesis Study on Material Suitability**

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A typical study of physical activity promotion (PAP) material would show a reading grade level (RGL) that is above eighth grade—this is problematic. To easily understand material, most adults require material with an RGL of eight grade or less. PAP material should be easy to understand. Purpose: This presentation provides preliminary findings from a meta-synthesis study on RGL suitability rates for PAP material. Methods: Data was obtained from peer-reviewed original research articles, systematically located, written in English, and presented PAP material readability results using an RGL measure. Data about sample material RGL were extracted (accuracy independently verified). RGL suitability level was categorized as follow: Optimal ( $\leq$  5th grade), Satisfactory (6th-8th grade), or Unsatisfactory ( $>$  8th grade). Results: Sixteen research articles met the inclusion criteria, were published between 1995-2020 ( $M = 2010.19$ ,  $SD = 7.55$ ), with an aggregate sample of 878 PAP materials (print, web). Materials were produced by diverse types of organization (e.g., commercial, professional association). Nearly all material had an unsatisfactory RGL (83.3%), a small portion satisfactory (15.7%), and virtually none optimal (1%). Typically, organization type subgroups ( $n = 5$ ) had more material with satisfactory RGL than observed for the total sample,  $M = 24.58\%$ , 95% CI [23.72%, 25.44%]. Material by professional associations appeared least likely to have a satisfactory RGL (8.8%, further analysis pending). Conclusion: The preliminary results of this study substantiate the need to train PAP material developers and selectors on how to evaluate for suitability. Implications for future research will be presented.

#### *E. C. Davis Lecturer*

#### **Pete Van Mullem (*Lewis and Clark State College*)**

Dr. Pete Van Mullem is a professor in movement and sport sciences at Lewis-Clark State College. He has over 14 years of professional experience in coaching and administrative positions at the middle school, high school, small college, and NCAA Division II and Division I levels. He serves on the editorial board for the International Sport Coaching Journal, is the editor-in-chief for PHE America, and the director of Sport Coach America.

Dr. Van Mullem served as a member of the National Standards for Sport Coaches Revision Task Force. A published author, Dr. Van Mullem co-authored two books: [To Be a Better Coach: A Guide for the Youth Sport Coach and Coach Developer](#) and the [National Standards for Sport Coaches](#). In addition, he has published over 40 articles related to coach development.

Dr. Van Mullem is a member of WSKW. In 2009, he was awarded the Young Scholar award, the WSKW award presented to outstanding young educators. In 2012, Dr. Van Mullem served WSKW as President. Since 2013, Dr. Van Mullem's passion for teaching and coaching are evidenced in his work organizing the Dr. Bob Frederick Lecture Series and through PHE America. These works expose students to career opportunities in their field, and provide opportunities for students to learn from leaders in the sport industry. Dr. Van Mullem wrote, "Don't miss opportunities to learn from those that have a gift for teaching, throughout your life." We are fortunate to have him here with us today to talk about leading through the challenges.

### **A Content Analysis of Papers Published in Kinesiology Journals**

**Jeff Bernard (California State University, Stanislaus), Bethany Shifflett (San Jose State University) and Andrea Ednie, (University of Wisconsin, Whitewater)**

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Building on a presentation last year that explored the controversy around use of the p-value in hypothesis testing, this project examined, from a quantitative perspective, the quality of published research in our field. A content analysis of 270 articles from 2016, 2018, and 2020 was conducted with a focus on studying patterns over time and how quality might vary depending on the tier (determined based on impact factors from American Kinesiology Association's listing of journals in our field) of the journal article. The main question of a relationship between time and quality was examined with a chi squared analysis. The dependent variable of quality was an ordinal variable with three categories. These categories were derived from codings ranging from zero to 5 based on the presence of key analytical components; e.g., reporting practical significance, reporting exact p-values, controlling experiment-wise alpha. There was a statistically significant relationship between time and quality, however there was no pattern to quality as a function of the journal tier. Overall, observations indicate there is considerable room for improvement in our execution of quantitative research. Of particular note is the need to determine sample size in the context of effect size and power and subsequently report the achieved power; reporting psychometrics for the data pertaining to dependent variables; reporting results of checks on assumptions related to inferential tests; reporting exact p-values and information related to practical significance.

### **The Dangers of Academic Clustering in Intercollegiate Athletics**

**Steve Miller (Saint Mary's College)**

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With over a dozen published studies confirming the existence of academic clustering and an expose revealing the deleterious effect it can have on an institution (Smith and Willingham, 2015), recent investigations (Case, et al, 2017) have begun to explore reasons why athletes cluster into a limited number of academic majors and whether this phenomenon occurs outside of Division I athletics (Miller, 2021). This presentation will center around the root causes of academic clustering as outlined in the literature and the 2019 GOALS study conducted by the NCAA, recent research findings, and how NCAA policies and initiatives designed to bolster academic success in DI athletics, actually promote academic clustering.

### **Relationships between muscle fitness and radial bone strength in older adults**

**Patricia Ruiz Mena, Roshetta Vauvei, Maria Gonzalez, Jennifer Sherwood, and Cathy Inouye (California State University, East Bay)**

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Introduction: Muscle fitness has been positively associated with functional ability and independence in older adults. Physical function tests that can be performed in homes and community centers, such as sit-to-stand (STS) velocity and hand grip strength (HGS), are used in this population to monitor muscle power and strength, respectively. Bone strength has been associated with muscle fitness however, the relationship between muscle strength and power has yet to be resolved. Here, the relationships between HGS and STS power to trabecular and cortical bone parameters of the radius are examined in older adults (ages 60-95 years). Fourteen participants (8 women) were recruited from campus and local community centers. Bone strength was assessed with a peripheral quantitative computed tomography scan of the radius. Lower limb muscle power was assessed with a linear position transducer during the rising phase of the STS. Bilateral HGS was assessed with a Jamar hand-grip dynamometer. Results: No significant correlations were found between combined handgrip strength (CGS; sum of peak HGS for right and left) and peak lower limb power. CGS was associated with cortical geometry ( $r = 0.733$ ), moment of inertia and strength ( $r = 0.702$ ;  $r = 0.766$ ). Peak lower limb power was associated with trabecular bone mineral content ( $r = 0.731$ ), density ( $r = 0.762$ ), and strength ( $r = 0.762$ ), and cortical geometry ( $r = 0.626$ ). Conclusions: These data suggest that muscle fitness testing may be a promising tool to monitor bone strength in older adults.

### **Characterizing Physical Behaviors in Adults with Aphasia**

**Raneen Abdulkhaliq, Delia Moore, Sarah Millar, Carina Reyes, Michelle Gravier, Jennifer Sherwood, and Albert R. Mendoza, Ph.D. (California State University, East Bay)**

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Introduction: Aphasia is an acquired language disorder resulting from brain injury, affecting an estimated 2.5 million people in the U.S. Aphasia impairs the ability to read, write, speak, and follow directions. Aphasia has been shown to negatively impact quality of life (QoL) and physical activity (PA) levels. But, there is limited research on PA behaviors of adults with aphasia (AWA). The present work will show how we implemented an aphasia-friendly exercise class over the past year, and the effects on QoL and PA outcomes. Methods: Nine participants (44% female); age mean(SD): 60 (16) year.; Time post stroke: 119 (102) months; were recruited and assessed for cognitive, linguistic, and PA measures. Quick Aphasia Battery overall score at entry: 6.50 (2.20) [range: 2.10 (severe) to 8.89 (mild)]. Free-living, PA data was collected using activPAL 4+ (thigh-worn on most active leg) for 7-consecutive days at baseline. An average of 5 valid wear days ( $\geq 4$  days with  $\geq 10$  hrs. of waking wear) were examined. Results: On average, AWA accumulate less steps per day, sit 2x more minutes per day and sleep more than healthy age-matched adults (table 1). Conclusions: AWA may benefit from aphasia-friendly interventions to: (1) increase PA behaviors, such as daily steps, stepping and standing, (2) decrease SB, such as, daily sitting, and (3) improve QoL measures. Future research may also examine the relationship between sleep, PA and SB in AWA.

### **Engaging and Interactive Learning Activities for Sport Sociology Classes**

**Heather Van Mullem (Lewis-Clark State College)**

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This interactive presentation will introduce two learning activities for sport sociology classes: 1) Podcasting and Title IX and 2) Creating a Virtual Sneaker Museum. These activities can be adapted for use in synchronous and asynchronous learning environments, can be assigned as an individual or small group project, help build information literacy and technology skills, and encourage active exploration of course content. Session participants will leave with a description of each activity, a step-by-step list of directions for assignment implementation, a demonstration of the technology used to complete each activity, and assessment strategies. In addition, student exemplars from an undergraduate sport sociology class will be shared.

### **Power up Through Collective Action Formations: Implications for The Physical Education System**

**Zack Beddoes (Brigham Young University) and Emily Jones (Illinois State University)**

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As a global pandemic, civil and human rights crises, and economic and public policy challenges combine to exert powerful societal forces on physical education and kinesiology, physical education professionals must be proactive leaders in planning for a more desirable and contextually responsive future. The aim of this session is to provide a theoretical analysis relative to systems planning and thinking. Systems frameworks are designed to focus on whole-part relationships where each component exerts influence on all the others. "The Physical Education System," based on recent analyses include the following components: public policy, school programs, teacher education, doctoral education, and professional associations—each component influencing and being influenced by the others. As a result of system dynamics, collective action, long-term planning, and achievable short-term goals are an existential necessity for a challenging but potentially desirable future. Collective action may exist within three units of analysis: (a) people; (b) organizations—schools and local community agencies; and, (c) cross-sector partnerships. This session reviews each of these levels of collective action within The Physical Education System. Emphasis will include place-based, context-specific school and university structures known commonly as professional learning communities (PLCs). Through collective action formations such as PLCs, component actors in the PES can "Power up, Leading through Challenges."

### **The chronic and acute effects of GoNoodle classroom PA breaks on reading fluency**

**Keven Prusak, David Barney, Hannah Wold, and Corbin Stringam (Brigham Young University)**

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Recent reviews of research suggests that integrated PA programs in the classroom increase overall rates of school engagement and academic outcomes, cognitive function, and classroom behavior. Less is known about the effects of classroom PA breaks on domain specific subject areas such as reading fluency (words per minute, reading accuracy, and words retold). Therefore, the purpose of this thesis study was to assess the immediate and chronic effects of physical activity breaks (specifically GoNoodle©) on reading fluency. Participants ( $n=384$ ), 2nd and 3rd grade students, members of 16 intact classes were examined in a 2 (history of PA breaks) by 2 (acute episodes of PA breaks) factorial analysis. Dependent variables (via DIBELS) included: Words Per Minute, Accuracy, and Words Retold. Gender differences were examined. A significant gender effect with boys showing significant improvements in Reading Fluency. A significant Acute and Chronic main effect on WPM, RA and WPM. Certain Chronic effects were also noted but less pronounced. These results indicate that increases in academic achievement specifically in reading fluency are possible. Notably, the most pronounced effects were immediately following acute bouts of PA. Further, a significant difference in WPM associated with chronic use of PA bouts for RA were present but less impactful. Further investigation into the chronic effects is warranted. In today's educational landscape of high stakes testing perhaps the value of frequent PA breaks such as GoNoodle© appears to have merit.

**Students as Pedagogical Partners: Reflections on a Semester of a Student-Faculty Partnership to Improve Instruction**  
**Heather Van Mullem and Christina Poole (Lewis-Clark State College, Lewiston)**

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Teaching is a dynamic activity. Ways to share, explore, and create knowledge change. Efforts to provide optimal learning experiences encourage faculty to assess the effectiveness of pedagogical strategies and consider implementation of new techniques. A primary factor influencing change is student perspective. Come to this interactive session to learn about the results of a student-faculty partnership to improve classroom teaching. During the spring 2021 semester, through direct classroom observation, an undergraduate student provided perspective on the efficacy of a faculty members' teaching strategies. Using this feedback, the faculty member and student worked collaboratively to identify and explore ways to improve the learning experience in the course. During this presentation, the participating student and faculty member will share the structure and function of their collaboration and its impact on classroom practice, curriculum, and assessment. Session participants will: 1) Explore strategies to design and implement student-faculty partnerships to improve instructional practice, 2) Examine possible challenges to incorporating student-faculty partnerships, 3) Identify strategies for student-faculty partnership success, and 4) Identify additional resources created by other institutions who regularly engage in this work.

**ORAL PRESENTATIONS, FRIDAY OCTOBER 8, 2021****Aesthetic Sport Experiences: The missing link to an active lifestyle?****Elaine Foster and Sharon K. Stoll (University of Idaho)**Email: [fost1618@vandals.uidaho.edu](mailto:fost1618@vandals.uidaho.edu)

People engage in sports and physical activity (PA) for many reasons, but many motivators are short lived and unsustainable. The Aesthetic Sport Experience (ASE) is the *inside, subjective* experience of playing sports and engaging in physical activity (Thomas, 1983) and may be instrumental in motivating continued sport participation (Fetter, 1976; Giamatti, 1989; Kretchmar, 2001; Saint Sing, 2004; Thomas, 1983). In this pilot study, the authors explored the influence of ASEs on commitment to PA in a convenience sample of 48 kinesiology students. The treatment group (n= 18) completed five, 20 minutes online lessons, where they explored their personal ASEs, and were compared to a control group (n= 30). Pre and post assessments with the Rickel Exercise Value Inventory (Rickel, 2005) and the Motives for Sport and Physical Activity Measure- Revised (Ryan et al., 1997), showed that both groups tended to shift away from objective motivating factors (i.e., competence, appearance, and fitness), toward subjective motivating factors (i.e., interest and social), with a bigger shift occurring in the treatment group. Further, both objective and subjective commitment increased in the treatment group only. This study suggests that ASE lessons may be used to promote an active lifestyle. Future research should continue to explore the influence ASEs have in living an active lifestyle, including how kinesiology professionals teach and promote such experiences.

**Leading the Shift Toward Intentional Positive Youth Development through Physical Activity in Juvenile Justice Programming****Sierra Cordova and Anne Larson (California State University, Los Angeles)**Email: [scordov9@calstatela.edu](mailto:scordov9@calstatela.edu)

Approaches to rehabilitation for youth in juvenile detention settings have historically been deficit-based, or, traditionally designed to identify and reduce problem behaviors. However, positive youth development programming focused on building upon existing strengths has been supported as an evidence-based approach to enhancing juvenile offenders' productive potential, increasing their well-being, and better reducing recidivism (Lancaster, Balkin, Garcia, & Valarezo, 2011; Barton, Mackin, & Fields, 2009; Fortune, 2018). Although some attention and implementation of positive youth development programming has been applied, research on the impacts of a strengths-based approach utilizing physical activity and cooperative games as context is extremely scant. The use of this particular approach is such that may require a major shift in the setting's organizational culture, which is often met with resistance from stakeholders and staff. In response, a comprehensive staff training was developed as a first step in educating juvenile detention staff about the knowledge and value of implementation. Approximately 55 staff among three cohorts participated in the six-week course that outlined building positive youth development activities and programming through physical activity and cooperative games. Pre-post surveys were completed. Overall, the training was found to have positively impacted staffs' understanding of intentional positive youth development, as well as increased confidence to purposefully implement the approach. Implications are discussed.

**A comparison of perceived benefits of physical activity course in college students before and during COVID-19****Seung Ho Chang, Bethany Shifflett, and Alev Dietrich (San Jose State University)**Email: [seungho.chang@sjsu.edu](mailto:seungho.chang@sjsu.edu)

Physical activity courses play a significant role in promoting college students' engagement in activities with benefits related to positive attitudes, behaviors and habits that have the potential to be maintained following graduation. Due to the COVID-19 pandemic, most colleges and universities needed to adopt online physical activity courses to adhere to regulations that limited activity indoors. Many studies have explored perceived benefits of physical activity in traditional settings. However, the impact of the pivot to online course offerings due to the COVID-19 pandemic is less fully known. Therefore, the purpose of this study was to compare the perceived benefits of physical activity courses among college students before and during COVID-19. A total of 421 college students who completed physical activity courses in the Fall of 2019 or Fall 2020 participated in this study. Perceived benefits were assessed through an analysis of responses to an exercise benefits questionnaire covering general and mental health, physical fitness, and social interaction. Mann-Whitney U test was selected for the analysis and statistical significance was set at the .05 level. The results showed a

statistically significant difference in overall benefits score ( $U= 9802, p < .001$ ). Differences were particularly apparent for the social interaction component of the survey. With the pace of online course offerings likely to increase as a result of our immersion in the online realm, the findings suggest that care will need to be taken when identifying courses best suited for delivery online.

**The Perceptions of Service-Learning Students Helping Individuals with Disabilities in an Aquatic Setting**  
**Gioella Chaparro (California State University, Dominguez Hills) and Jennifer Dysterheft (Hamline University)**  
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Student service learning is one strategy to help improve future healthcare professional's attitudes towards individuals with physical disabilities (IWD)<sup>1</sup>. The purpose of this study was to investigate the perceptions of service-learning students helping IWD in an aquatic setting. Methods. This was a qualitative study where nineteen Kinesiology undergraduate students (mean age: 21.31 years; 14 females) volunteered to be trained Exercise Personal Assistants (EPA) for IWD in an aquatic therapy class. The class met twice a week on campus, during the school semester, for fifty minutes. Qualitative interviews were used to explore the experiences and perceptions of the EPA. Interview transcriptions were analyzed using thematic analysis. Results. Thematic analysis of qualitative interviews indicated EPA experienced numerous positive outcomes and experiences resulting from the intervention, very similar to those found in previous service-learning research. Interviews indicated EPA gained enjoyment, knowledge about adapted physical activity programming, and knowledge and confidence in working or helping IWD. Most importantly, EPA indicated elimination of negative perceptions of IWD. Discussion and Conclusions. In general, participants in this study indicated gaining various benefits and outcomes from participating as an EPA. Additionally, while initial expectations and perceptions of working with IWD were negative, being involved in the service-learning opportunity in an aquatic setting elicited positive and refreshing changes from the EPA. Results from this study provide important information on EPA experiences, outcomes, and assist in future recommendations for designing service-learning opportunities in an adapted setting.

**Women's Perspectives on the Underrepresentation of Women in California Leadership Positions in Kinesiology**  
**Denise Ramirez (California State University)**  
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The present study explored women kinesiologists' perspectives on the underrepresentation of women in leadership positions of kinesiology in California. Studies of women in leadership suggest that stereotyping and gender bias may limit opportunities for women, especially in a hard science field such as kinesiology. The few studies that document the experiences of women kinesiologists in higher education leadership in the United States were conducted in the Midwest and on the east coast. This qualitative, narrative inquiry study sought to broaden and deepen the discussion about women's career experiences in California. Twelve women kinesiologists who held a past, current, or aspired to obtain a leadership position in a California higher education institution shared their personal stories. They discussed how they viewed opportunities regarding gender equity and how gender bias may have impacted their career decisions, goals, and choices. Analysis of the narratives revealed five themes: work-life balance, family obligations, lack of role models, stereotyping, and "good ol' boys club." Through the lens of social role theory, social reproduction theory, and feminist geography, the narratives revealed that women aspire leadership positions yet face challenges and obstacles to achieve career goals. Additionally, an unanticipated finding was that experiences vary within California, and political overtones may have influenced career opportunities and experiences.

**A mixed methods study examining perceptions of community dwelling people who use wheelchairs full-time about their fear of falling**  
**JongHun Sung (Idaho State University, Pocatello,)**  
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Falls can result in the development of fear of falling (FOF) among people living with various health conditions who use wheelchairs full-time. A deeper understanding of FOF in this population is necessary to develop and implement an intervention effectively. To investigate perceptions related to FOF among people who use wheelchairs full-time, a mixed method approach was used on 39 people who use wheelchair full-time (age=43±15 yrs, disability duration=21±11 yrs, 19 power wheelchair users, 19 female). FOF was examined by participants responding (yes/no) to the question: "Are you worried or concerned that you might fall?" In addition, a face-to-face, semi-structured interview was performed to gain

insight into wheelchair users' perceptions related to FOF. Qualitative interview data was analyzed via thematic analysis. 70% of participants reported FOF. The qualitative data analysis revealed that the majority of participants' FOF was due to fall-related injuries from their previous falls or being aware of mobility limitations (e.g., inability to get back to the chair). However, some participants perceived falling as part of their lives and believed that falling did not affect them due to their ability to return to a desired sitting position from a fall independently. The results indicated that FOF are prevalent among people who use wheelchairs full-time. Given the current evidence that the FOF is negatively associated with quality of life and community participation in this population, developing an evidence-based intervention to minimize FOF is needed among people who use wheelchairs full-time.

**Feasibility and Effectiveness of a Real-Time Virtual Exercise Group to Promote Physical Activity in Chronic Aphasia**

**Albert Mendoza , Jennifer Sherwood, and Michelle Gravier (California State University)**

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Introduction: Regular physical activity (PA) and decreased sedentary behaviors (SB) slow physical decline and improve quality of life (QoL). However, limited research has been conducted examining PA interventions for adults with aphasia (AWA). Aphasia is an acquired language disorder affecting ~2.5 million people in the U.S. The present study aims to evaluate the feasibility and effectiveness of an aphasia-friendly exercise class on QoL, PA, and SB. Methods: QoL assessments were performed pre- and post-intervention in eleven participants (55% female); age mean(SD): 62(14) years. Nine enrolled in the exercise class, and the two in the comparison group, did not. 10 weeks of twice-weekly, 50-minute exercise sessions consisting of range of motion, aerobic, muscular endurance and strength were conducted via Zoom. Free-living, PA data was collected using activPAL 4+ (thigh-worn [on most active leg]) for 7-consecutive days at pre-and post- intervention. Valid wear days ( $\geq 4$  days with  $\geq 10$  hrs. of waking wear) were examined. Paired- and two- sample t-tests were used to examine participant average change and mean group differences, respectively, significance set at  $p < 0.05$ . Results: AWA were able to participate in the exercise classes and average attendance was high (80%). The Burden of Stroke (BOSS) "positive emotions" subscore improved significantly for the exercise but not the comparison group ( $p = 0.04$ ). Discussion: AWA may benefit from virtual, aphasia-friendly interventions aimed to improve QoL, increase PA, and decrease SB.