### Late-Breaking Undergraduate Student Abstracts

### **Motor Development**

# The relationship between early and later motor problems in children with developmental coordination disorder (DCD)

#### Promise Robinson, University of Texas at Arlington; Priscila Tamplain, University of Texas at Arlington

DCD is a neurodevelopmental disorder that impacts the gross and fine motor skills in this population. Motor milestones are often used by pediatricians as the only marker for early development. However, motor milestones seem to have very little predictive value since children had developmental problems later on. For that reason, there is often a delayed diagnosis associated with DCD, inhibiting children with motor difficulties to receive the help that they need. This study can inform the understanding of motor milestones and how they play a role in movement problems and future assessment/intervention/rehabilitation outcomes for this population. This study aimed to determine the potential associations between early and later motor problems in children with DCD. A total of 113 parents/caregivers of children aged between 5 to 18 years diagnosed with DCD were asked to answer an online survey about early motor milestones, demographics, and current motor problems of children. The motor milestone questionnaire asked parents to indicate whether their child was "on time" or "late" for 10 developmental milestones: lift their head, turn back (roll) to belly, sit without support, crawling on hands and knees, stand with assistance, stand without support, walk with assistance, walk without support, climbing stairs, and walking up/downstairs. The Developmental Coordination Disorder Questionnaire (DCDQ) was used to identify current motor problems. The results indicated that 78% of the children achieved 7 of the 10 motor milestones "on time" (with the exception of crawling on hands and knees, climbing stairs, and walking up/downstairs). However, the DCDQ scores reflect the reality that over 90% of the children in this sample had motor problems in all 3 areas (control during movement, fine motor/handwriting, and general coordination). Our findings questioned the validity of only using motor milestones as a predictor of later motor problems in children. Therefore, future research is needed to identify other markers of motor problems and DCD in childhood. Funding source: University of Texas at Arlington

### **Motor Learning and Control**

#### "Don't do this" vs. "do that": The influence of instruction on interference effects from observed actions

Cassie Chan, University of Toronto; Kristina Knox, University of Toronto; Xiaoye Michael Wang, University of Toronto; Jay Pratt, University of Toronto; Jonathan S. Cant, University of Toronto; Timothy Welsh, University of Toronto

During the execution of goal-oriented actions, the perception of an incongruent movement by another person may result in an interference effect in which the motor codes of the observed competing movements interfere with the motor codes of the desired behaviour. This interference effect (motor contagion) may occur because the observation-evoked response codes activate the response codes that compete internally with voluntary movement. This conflict can present itself in executed actions wherein the executed movement has features of the observed movement. The present study aimed to investigate if the motor contagion effect was impacted by ironic processing, a phenomenon that involves the tendency to perform an action that is intended to be avoided. Participants (N = 23, M age =  $20.5 \pm 1.0$  years) completed cyclical horizontal arm movements while observing a video of another moving individual. The observed movements consisted of congruent (horizontal) or incongruent (vertical) arm movements. Participants were provided instructions that were either positive ("keep movements as horizontal as possible) or negative ("do not make any vertical

movements"). Arm movements were recorded and deviations from the main horizontal trajectories were analyzed. The results indicate a significant ironic processing effect (an interaction between task instruction and perceived movements; p = 0.043) – differences in vertical displacements during congruent and incongruent trials were only present in the negative instructions. Interestingly, the ironic effects were driven by lower vertical displacements in congruent trials rather than larger displacements in the incongruent trials. These results further demonstrate the impact of instruction on the effects of observation-evoked motor codes on goal-oriented movements.

#### An exploratory study of emotion and movement in healthy young adults

Morgan Gladson, Auburn University; Hannah Heavlin, Auburn University; Chad G. Rose, Auburn University; Howard Chen, University of Alabama at Huntsville; William M. Murrah, Auburn University; Kristina A. Neely, Auburn University

It is well established that, when experimentally manipulated, emotion influences movement output. What is unknown, however, is whether self-reported, and not manipulated, emotions are associated with movement output. In this study, we sought to determine whether movement output could predict positive and/or negative affect in healthy young adults. Fifty-six healthy young adults (*n* women = 34, *M* age = 20.3, + 3.1years) completed the 6-minute walk test (6MWT), the timed-up-and-go (TUG) task, and the Purdue pegboard task (PPT). Emotional state was evaluated with the Positive and Negative Affect Schedule (PANAS-X), which was completed immediately before all movement tasks. We hypothesized negative affect (NA) would be associated with slower movement speeds across all tasks, whereas positive affect (PA) would be associated with faster movement speeds. Each participant completed the 60-item PANAS-X, rating each item on a 1-5 scale. Participants then completed the 6MWT and total distance was recorded. Next, an inertial measurement unit (IMU) was secured to the upper right thigh of each participant before completing the TUG task. Last, participants completed the PPT. The results of the linear regression did not provide evidence that PA and NA are related to our movement output variables (all  $p_s > .095$ ). Post-hoc exploratory analyses demonstrated a higher score for NA was associated with walking a shorter distance in the 6MWT (r(55) = -.29, p = .033). No other movement output variables were correlated with PA or NA. Next, independent t-tests revealed sex differences in the PPT and the TUG (all ps < .044), suggesting sex differences should be accounted for in future work. Lack of variability in PA, NA, and our movement output variables is likely explained by our homogeneous sample of healthy young adults (i.e., undergraduates). However, these findings are an important step towards determining whether quantifiable movement output is a valid indicator of self-reported emotional state in more diverse samples and/or clinical populations.

### Sport and Exercise Psychology

#### An exploration of the dual-career transition of high school student-athlete to college student

### Brooklyn Barnes, University of Tennessee; Jedediah E. Blanton, University of Tennessee; Rachel E. Williams, University of Tennessee

Athletic and educational career transitions provide a certain degree of adjustment on their own. When experienced simultaneously, this dual transition may provide additional challenges. The conceptual model of adaptation to career transition (Taylor & Ogilvie, 1994, 2001) and Schlossberg's transition model of human adaptation (Schlossberg, 1981) emphasize mutually important factors that determine a successful transition in two different capacities, which are being experienced by a high school student-athlete who is retiring from sports and starting a higher education career simultaneously. According to the athletic career termination model, whether or not the transition will be healthy depends on the factors related to adaptation, available resources, and the quality of the transition. According to Schlossberg's transition model of human adaptation,

the transition process is influenced by the situation, amount of support, the individual, and coping strategies to healthily adapt to change. The dual-career transition from high school student-athlete to college student has yet to be explored. The purpose of this project is to capture the lived experiences of retired high school student-athletes who experienced the dual-career transition out of sport and into college. Ten interviews were conducted with college students who have retired from high school sports and transitioned into college as just students. Using deductive interpretative phenomenological analysis, composite vignettes were created to best capture this dual-career experience. This study provides insights into a healthy dual-career transition, identifies challenges most prominent during the dual transition, and suggests strategies to support students preparing for and undergoing a dual-career transition.

# The "ideal" dancer: An investigation into predictors of body dissatisfaction among male dancers, female dancers and their non-dancing counterparts

#### Jessica Boyes, Northumbria University; Katri Cornelissen, Northumbria University

Body dissatisfaction has been consistently highlighted as a precursor for eating disorders. Body dissatisfaction itself can rise from several factors, one of them being social expectations of being thin, which can be particularly emphasised in certain sports, like dance. Whilst there is some research on body dissatisfaction in female dancers, the literature has neglected the male demographic. The present study sought to investigate seven predictors of body dissatisfaction within male and female dancers, from a variety of genres. The study employed a non-experimental quantitative method, utilising a four independent group correlational design. The role of clothing practises, body ideal internalisation and sociocultural influences were investigated as predictors for body dissatisfaction. One hundred and eighty participants (M age = 23.7, SD = 7.51) completed an online survey, consisting of demographic questions, questions related to body satisfaction, social attitudes towards appearance questions and questions related to clothing and body ideals. Hierarchical multiple regression revealed that the model consisting of all predictors significantly accounted for over 60% of variance in body dissatisfaction scores within all independent groups. The individual contribution of predictors differed between groups, with clothing practise being the only significant predictor, out of all investigated predictors, in all four groups. Interestingly, media pressure was a significant predictor within non-dancer groups only. Overall, this research highlights the importance of clothing practises, specifically tight-fitting garments within the dance environment and the general population. Future research should investigate potential differences in the predictors between each level of dance.

#### Investigating the role coaches play during adolescent athlete injury rehabilitation

#### Olivia Christendat, University of Toronto; Katherine Tamminen, University of Toronto

Over 33% of high school and middle school children in the USA are estimated to experience a serious injury related to sport participation (Adirim & Cheng, 2003). This is significant as serious injuries at this age could lead to negative effects for adulthood activity levels, mental health disorder development, and long-term quality of life (Haraldsdottir & Watson, 2021). Adolescents who are injured require social support as part of their successful recovery (Bianco, 2001), especially from coaches who are in a unique position to promote positive and appropriate injury rehabilitation strategies (Whatman et al., 2018). There is limited research on what athletes believe the role of the coach should be during adolescent athletes' rehabilitation from injury. The purpose of this study was to investigate what role coaches play during adolescent athletes' injury rehabilitation and return to sport. This study uses a constructivist qualitative approach (Scotland, 2012), where participants participate in a semi-structured interview and complete a timeline of their experiences in sport as an adolescent (Adriansen, 2012). Interviews are being conducted with eight varsity athletes who had previously been injured in sport while they were adolescent athletes. Interviews are currently underway. Initial results have shown that coaches creating opportunities for athletes to remain involved within the team

is one way that helps athletes have a more positive and successful injury rehabilitation and experience overall. Participants also expressed that having coaches be relatable and having gone through similar experiences was helpful because they are more likely to understand what they are going through. Initial findings suggest that coaches can help improve adolescent athletes' experiences during rehabilitation by providing access to resources, being understanding and relatable, and providing opportunities for them to stay involved within the team.

#### Online coaching: Psychosocial coaching approaches for masters athletes

#### Kimberley Eagles, Cape Breton University; Bettina Callary, Cape Breton University

Masters athletes (MA) are typically over the age of 35 years and are registered in sport to train for the purpose of competing. The majority of kettlebell sport participants are MAs who compete in events all over the world. Kettlebell lifting in Canada is relatively new and niche, therefore most MAs are coached using an online platform. Given the mature self-concepts of adult sport participants and coaches' adult-oriented approaches that support autonomy and self-direction (Callary et al. 2021), MAs may be well-suited to being coached online. However, little is known about whether and how psychosocial adult-oriented coaching approaches are developed in an online coach-athlete relationship. The purpose of this study is to explore MAs' perceptions of psychosocial coaching approaches as delivered by an online coach. Five Canadian masters kettlebell lifters between the ages of 37-54 years (3 women, 2 men) were interviewed regarding their experiences with an online coach with whom they had no prior relationship. Interpretative phenomenological analysis resulted in three higher-order themes and seven subthemes. Findings indicated that MAs were careful in selecting their coach and wanted their coach to impart coaching knowledge and experience. The communication between the coach and MAs changed over time by respecting preferences for accountability, which created psychological closeness. The online programming developed trust and MA autonomy through framed learning situations and the ways in which the coach considered the individuality of the MA, adapting and focusing on MA's goals. These findings demonstrate how commitment is created within the coach-athlete relationship when psychosocial adult-oriented coaching approaches are used. Funding source: Social Sciences and Humanities Research Council of Canada.

# A prospective think aloud study of athletes' experiences with return to play protocol following a sport related concussion

### Cayley Fleischman, University of Lethbridge; Scott Rathwell, University of Lethbridge

Concussions are a complex pathophysiologic response resulting from biomechanical forces to the brain and include neurological symptoms that reflect functional injury (Kutcher & Giza, 2014). Most reported concussions in Canada are sport-related (Gordon et al, 2006). Concussions are unique as visible indicators of injury and cognitive and emotional symptoms are subjective in nature (Kutcher & Giza, 2014). Relying on symptoms that may take up to 72 hours to appear (McCrory et al., 2017) for diagnosis can cause athletes to inadvertently partake in activities that worsen symptoms (Asken et al., 2018). To guide return to sport the return to play (RTP) protocol was created. The 6-stage process gradually re-introduces athletes to physical activity with the goal of safely returning to sport (McCrory et al., 2017). Although RTP is valuable for ensuring athletes are physically ready, it is limited in its ability to rehabilitate athletes psychologically (Caron et al., 2018). Understanding athletes' psychological readiness is crucial as recurring feelings of inadequacy or fear of reinjury can exacerbate an already unpredictable recovery timeline (Hsu et al., 2017). The purpose of the proposed study is to qualitatively explore athletes' psychological recovery from concussion as they complete RTP. Convenience sampling will be used to recruit athletes from University of Lethbridge varsity teams that have experienced a sport-related concussion. Athletes will partake in an initial interview to capture their immediate appraisal of their injury. After the interview, participants will be asked to wear a wireless microphone (Q5X Audio Transmitters, 2020) and "think aloud" as they progress through each RTP stage. "Think aloud" is a data collection method that prompts participants to verbally express thoughts they

experience during a task (Ericsson & Simon, 1980). After each stage, athletes will complete interviews to expand upon recorded responses. Data will be analyzed and organized using a reflexive thematic analysis approach (Braun & Clarke, 2020).

# Readability analysis of experimental vignettes used to communicate physical activity information during pregnancy: What did we learn?

# Kyra Hollins, Brock University; Philip Wilson, Brock University; Sabrina Buchanan, Carleton University; Diane Mack, Brock University; Taniya Nagpal, University of Alberta

Use of experimental vignette methodology (EVM) is gaining popularity in exercise psychology research, yet limited attention has focused on comprehension issues relative to EVM. Readability is one facet of comprehension that can be used to assess the ease of understanding written vignettes (or 'scripts') yet is not typically evaluated in exercise psychology research. To expand on this issue, the purpose of this study was to address the following research question: What is the readability of communication scripts used in physical activity research? Two scripts designed for an experimental study providing information to pregnant individuals using different communication styles - "directing" versus "guiding" - crafted from the literature on motivational interviewing were evaluated for readability in this study. Each script was presented using an identical sequence of written text presented as follows: (a) background (paragraphs: 3; word count: 162), (b) information provision using the elicit-provide-elicit (E-P-E) approach. The E-P-E was presented to study participants using either a "directing" (paragraphs: 6; word count: 269) or "guiding" (paragraphs: 6; word count: 225) communication style. A web-based readability calculator evaluated the scripts using three readability indices: Flesch Reading-Ease (FRE), Flesch-Kincaid (FK) and Simple Measure of Gobbledygook (SMOG). The mean ( $\pm$ SD) values for the E-P-E portion of each script were as follows: FRE (32.1  $\pm$  11.3); FK (15.9 ± 3.0); SMOG (14.1 ± 2.1). Results of the readability analysis focused exclusively on the background text preceding each script were as follows: FRE (40.4); FK (11.3); SMOG (10.9). Overall, these results provide evidence that script readability is a pivotal consideration when using EVM in exercise psychology research as all scripts required higher education levels (i.e., 11th grade to post-graduate) than recommended within best practice guidelines (i.e., 6th grade). It is recommended that future exercise psychology research using EVM assess script readability.

#### Giving back: A proposed study on the motives of female volunteer youth sport coaches

#### Juliana LeBlanc, Acadia University; Matthew Vierimaa, Acadia University

Although organized youth sport has been found to have many potential benefits, the recruitment and retention of volunteer coaches remains an ongoing challenge. Furthermore, there is often a shortage of females in coaching positions when compared to their male counterparts, which is problematic given the importance of female role models for young female athletes. Research on positive youth development (PYD) through sport has identified volunteer coaching as one common way in which adults can contribute or "give back" to their youth sport communities (Vierimaa et al., 2017). Many volunteer sport coaches have identified that they do not give back out of obligation, but as an opportunity to maintain involvement in the sport that they once participated in (Cuskelly & O'Brien, 2013). Nevertheless, relatively little research has been conducted on this topic to date, especially among female youth sport coaches. Thus, the purpose of this study is to use a grounded theory approach to identify the key factors that have driven female your sport coaches to contribute to their respective organizations through coaching. Participants will be 16 adult female youth sport coaches who were once youth sport participants in those same sports, with at least four years of experience as both an athlete and a coach. Qualitative interviews will take place with each participant to learn about their youth sport experiences and why they choose to give back to their sport through coaching. Data collection and analysis will follow an iterative cycle (e.g., Weed, 2016), while data analysis will move from open and conceptual coding to theoretical integration in order to develop a theory regarding the pathways through which female youth sport athletes transition to contributing coaches in adulthood. This study has the potential to improve our understanding of how PYD through sport can lead to contribution among female athletes. In addition, practical knowledge regarding the motive of volunteer coaches can help to enhance the overall coaching capacity of youth sport organizations.

# Why drop out? A proposed study exploring the coaching perceptions of former competitive adolescent athletes

### Gillian McWilliam, Acadia University; Matthew Vierimaa, Acadia University

While youth sport participation is recognized as an important vehicle for personal development, around 70% of athletes will drop-out of sport before the onset of adolescence (Eitzen & Sage, 2009). It is therefore important to understand the key elements of high-quality sport experiences across a spectrum of environments. In particular, interpersonal factors (i.e., coach-athlete relationships) are most frequently linked with sport drop out (Crane & Temple, 2015). Indeed, existing research indicates that coaches direct the quality of youth's sport experiences and participation (e.g., Fraser-Thomas et al., 2016) both positively and negatively (e.g., Cardinal et al., 2013). However, research on effective coaching often investigates the perspective of current athletes, while less is known about the coaching perceptions and experiences of former athletes that have since dropped out of sport. Thus, the proposed study will use an interpretive phenomenological approach (IPA; Smith et al., 2009) to explore the lived experiences of former competitive adolescent athletes regarding their sport history and coach-athlete relationships. Participants will include eight individuals, 18-25 years old, who both participated in and dropped out of competitive sport during adolescence. Semi-structured interviews will be used to gather data on participants' experiences, coach-athlete relationships, and eventual drop out. In line with IPA, data will be inductively analyzed at both the individual and group levels using an inductive to interpret how participants made sense of their former sport experiences (Smith et al., 2009). The primary researcher's interpretations will be guided by observations made during the interviews in addition to her own personal experiences with dropping out of competitive sport. This study aims to extend our understanding of how coaches contribute to both prolonged engagement and drop out in competitive youth sport. This knowledge can be utilized in coach education to minimize athlete drop-out rates and aid in the facilitation of positive youth sport experiences.

### Construct validity of the leisure time physical activity questionnaire for people with disabilities (LTPAQ-D)

#### Ava Neely, University of British Columbia; Cameron, Gee, University of British Columbia; Aleksandra Jevdjevic, University of British Columbia; Kenedy Olsen, University of British Columbia; Kathleen Martin Ginis, University of British Columbia

Leisure time physical activity (LTPA), which is any form of physical activity (PA) completed in an individual's free time by choice, leads to various health benefits in people living with disabilities (PLWD). Due to a lack of epidemiological PA data amongst PLWD, it is difficult to effectively develop and assess LTPA interventions to improve PA participation in this population. Collection of this data requires a valid and reliable measure. The purpose of this study is to examine the construct validity of a new PA questionnaire, the LTPA Questionnaire for PLWD (LTPAQ-D), as a measure of LTPA participation in adults living with physical and/or sensory disabilities. We hypothesized that in adults living with physical and/or sensory disabilities, total weekly aerobic LTPA and moderate-to-vigorous LTPA (MV-LTPA), as reported on the LTPAQ-D, would be positively correlated with cardiorespiratory fitness and other self-report measures of PA. Secondly, we hypothesized that total weekly strengthening LTPA, as measured by the LTPAQ-D, would be positively correlated with muscular strength and other self-report measures of strengthening activity. To date, 16 individuals (75% male; age  $37 \pm$ 18 years) with physical and/or sensory disabilities have completed 3 strength tests, a maximal cardiorespiratory fitness test, and self-report PA questionnaires, including the LTPAQ-D. One-tailed Pearson correlation coefficients between the LTPAQ-D and the other self-report PA measures were positive and significant (r = 0.430 to 0.988, all p < 0.05). LTPAQ-D total aerobic and aerobic MV-LTPA had nonsignificant, small-medium, positive correlations with cardiorespiratory fitness (r = 0.376 and 0.256 respectively, ps > 0.05).

Correlations between LTPAQ-D strengthening LTPA and muscular strength were also nonsignificant but positive (r = 0.049 to 0.220, ps > 0.05). These results provide preliminary evidence of the construct validity of the LTPAQ-D for adults living with physical and/or sensory disabilities; however, further data collection is needed to increase statistical power and generalizability.

# Exploring exercise identity in people living with and beyond cancer: A qualitative inquiry into exercise behaviour within early survivorship

# Jada Roach, University of Toronto; Allyson Tabaczynski, University of Toronto; William Goodman, University of Leeds; Linda Trinh, University of Toronto

Exercise is beneficial for people living with and beyond cancer (LWBC); however, many people LWBC fail to meet the exercise guidelines. Having an identity, a component of self-concept, surrounding physical activity is theorized to motivate people LWBC to continue to engage in exercise behaviours that align with their identity. In the general population, having a strong exercise identity correlates with exercising more frequently. For people LWBC, many barriers including treatment-related side effects, lack of time, fatigue, psychological barriers to physical activity exist, which have been shown to negatively interact with exercise identity. Therefore, understanding how exercise identity influences exercise behaviours is in cancer survivorship is warranted. The present study explored the perceived impact of people LWBC and their exercise identity on exercise behaviors. Semi-structured interviews were conducted to identify influences of exercise identity on exercise behaviour. Twelve participants of mixed diagnoses in the early survivorship period (i.e., within five years of completion primary treatment or diagnosis) were recruited from local cancer organizations so far, with the final sample size determined by data saturation. Those who self-identified as having an "exercise identity" were interviewed regarding this identity, its interactions with their cancer diagnosis and treatments, and its impact on exercise participation. Transcripts were transcribed verbatim and will be analyzed using thematic analysis. Data collection is ongoing with 8 interviews completed so far. Full results will be presented. Results of this study have implications for the design and implementation of exercise programs for people LWBC and will provide insights into what keeps people exercising during and following cancer treatment.

#### Examining the role of accountability and identity on sport commitment

### Mikayla Roman, Hope College; Olufemi A. Oluyedun, Hope College

The sport context involves a wide range of social agents who shape athletes sporting experiences. Extant work provides support for the link between quality peer relationships and sport commitment. In addition to understanding the relevance of peers in sport, more work is needed to investigate introspective (identity/personality) constructs that may be associated with persistence in sport over time. The purpose of this study was two-fold: (a) to explore the role of accountability among collegiate athletes, and (b) to examine whether athlete identity and perfectionism share a multivariate relationship with sport commitment. Collegiate athletes (N = 89, M<sub>age</sub> = 19.68; 60.6% female) provided demographic information and completed established measures of accountability, athletic identity, perfectionism, and sport commitment. Descriptive analyses showed athletes report feeling most accountable to themselves and proximal social agents (teammates, coach, family). In addition, accountability was a significant predictor of the constrained ("have to") form of commitment, accounting for 17% of the variance. To address our secondary purpose, we ran a canonical correlation between predictor (athletic identity & perfectionism dimensions) and criterion variables (enthusiastic & constrained commitment). A significant multivariate relationship emerged that indicated a strong association (Rc = .65) between the two sets of variables. Enthusiastic commitment exhibited a significant loading while constrained commitment did not show a significant loading. Higher personal standards, concern over mistakes, perceived parental pressure, perceived coach pressure, and athletic identity were associated with higher enthusiastic commitment. These findings highlight the link between athlete self-perceptions and sport commitment. Funding source: Nyenhuis Faculty-Student Collaborative Grant.

#### Effects of social exclusion and inclusion on exercise performance

# *Owen Spiwak, McMaster University; Mina, Kheir, McMaster University; Mitchell, Simpkins, McMaster University; Sukhvinder S. Obhi, McMaster University; Steven R. Bray, McMaster University*

Social exclusion experiences elicit a host of unfavourable inter- and intra-personal consequences including anger and aggression as well as reduced self-control and engagement in physical activity. However, few studies have explored interventions, such as social inclusion, that may mitigate negative impacts of social exclusion. In this study, we investigated whether differing combinations of social exclusion and inclusion experiences affect self-controlled physical activity using an endurance handgrip task. Participants (N = 118; n = 83 females) performed two maximum endurance handgrip trials separated by a social exclusion/inclusion manipulation in which they played two games of a 3-person (avatar), ball-passing, video game (Cyberball) programmed for the participant's avatar to receive either an equal (INclusion) or disproportionately small (EXclusion) number of ball passes. Participants were randomized to experience one of: double inclusion (IN-IN), inclusion-exclusion (IN-EX), exclusion-inclusion (EX-IN), or double exclusion (EX-EX). Results of repeated measures ANOVA showed a significant (p < .001) decline in handgrip performance from trial 1 to trial 2. Although the largest performance change scores were observed in the EX-EX condition, contrary to hypotheses, there were no significant differences between the conditions (p > .10). Further research should explore alternative measures of self-control and physical performance/activity as the endurance handgrip task used in this study induces high levels of muscle fatigue that may not be present when people perform less intense forms of physical activity. Research investigating effects of other forms of social exclusion on selfcontrol and physical activity is also encouraged.

# Pause-cardio: Moderate-intensity exercise intervention for women's sport student-athletes transitioning into college and collegiate sport

# *Emily Thomas, University of North Carolina at Chapel Hill; Ling Beisecker, University of North Carolina at Chapel Hill; J.D. DeFreese, University of North Carolina at Chapel Hill*

Periods of transition for all athletes, such as transition into collegiate sport, can be difficult and lead to compromised performance and mental health. Moreover, women experience higher incidences and prevalence of anxiety, depression, and stress than their male counterparts. Yet, there remains a gap in the literature exploring women's sport student-athletes' transition into college and collegiate sport. Moderateintensity exercise has been found to reduce harmful effects from stress, as well as ease anxiety and depression. This longitudinal, interventional study examines the feasibility and effectiveness of a 6-week moderate-intensity cardiovascular exercise intervention program to mitigate stress, anxiety, and depression in women's sport student-athletes transitioning into college and collegiate sport. Under Purposeful, Authentic, and Unifying Student-Athlete Experiences (PAUSE) programming, PAUSE-Cardio is a cardiovascular comparison intervention to PAUSE-Yoga, a funded, ongoing yoga-based exercise intervention for women's sport studentathletes. Participants will consist of twenty-two women's sport student-athletes (N = 22) ages 18 and older in their first two years of undergraduate study and actively participating in an intramural, club, varsity collegiate, or recreational sport. Study-specific moderate-intensity exercise will be administered once weekly in an online group fitness setting for 45 minutes. Results will be assessed with a longitudinal self-report survey of valid and reliable psychometric measures and free response items. All measurements and questions will be compiled into one electronic survey that will be administered two times (pre-program [T1] and post-program [T2]). Repeated measures ANOVA analyzing within- and between-group anxiety, depression, and stress and adjustment will be conducted to test preliminary intervention efficacy. This study will illuminate the previously unknown relationship between moderate-intensity exercise and mental health among women's sport studentathletes transitioning into college.

#### Positive body image experiences in women and feminine of center athletes

#### Taylor Unger, University of British Columbia; Shannon, Herrick, University of British Columbia; Erica, Bennett, University of British Columbia

Athletes are highly aware of their body's functionality and appearance, given that the body plays a central role in sport (Petrie & Greenleaf, 2012). Sport can be beneficial and protective of body image; however, it can also reinforce negative body-related thoughts or beliefs (Lunde & Gattario, 2017). Athletes' body image is also gendered, with women athletes reporting lower satisfaction with their bodies compared to men athletes (Soulliard et al., 2019). Little remains known, however, about the role of gender beyond the binary as well as experiences of positive body image (love, respect, and appreciation for the body; Tylka, 2012) in sport. The purpose of this research was to better understand experiences of positive body image from the perspective of competitive women and feminine of center athletes. A six-question open-ended qualitative survey was completed by 48 participants who shared their experiences with body image and its intersection with sport and gender. Data were analyzed using reflexive thematic analysis and two themes were identified: spheres of influence and interaction between spheres. Four spheres of influence, society, interpersonal, body, and selfesteem influenced participants' body image experience. These four spheres were interconnected through the process of comparison (e.g., comparison between personal, sport-related, and societal beauty standards). Notably, focusing on sport, performance, and function, along with being exposed to successful athletes with various body types seemed to be predominately beneficial and protective of body image. These findings extend the current body image research and theorizing by contributing to our understanding of positive body image and gender in sport.

### Evaluating the reach and use of a physical activity promotion website tailored for individuals with chronic pain

*Laura M. Zottl, Brock University*; Sean R. Locke, Brock University; Kelly C. Hall, University of Saskatchewan; Jocelyn E. Blouin, University of Saskatchewan; Susan M. Tupper, Saskatchewan Health Authority; Nancy C. Gyurcsik, University of Saskatchewan

Approximately 7 million Canadians live with chronic pain. Pain is chronic when lasting 3+ months and can continue even with tissue healing, be due to an underlying disease (e.g., arthritis), or have no known cause. Physical activity is an evidence-based chronic pain management strategy. Few online resources and even fewer programs dedicated to disseminating information about how to be active with chronic pain. The Active Living with Pain website was developed as part of a grant-funded research program to co-develop a physical activity self-management intervention for adults living with chronic pain. The website contains information about chronic pain, pain management, beneficial physical activities, and self-regulatory tips. The website also provides interested adults with information about participating in our upcoming research study. RE-AIM is a framework for evaluating the implementation of interventions. "R" stands for reach which is an active measure of participation and will be examined in this research. Reach helps program administrators understand whether the study is reaching and is representative of those who need the program. The first purpose of this proposed study is to quantify reach by the amount of internet traffic the website has received and analyze which content pages were the most viewed. The second purpose is to examine reach in terms of the sociodemographic characteristics of individuals who are: interested, consenting, eligible, and sign-up for our associated research study being promoted on our website. Upon website launch, we will gather and examine website usage data that is routinely collected by WordPress, the website's publisher (e.g., number of webpage visits, number of downloads). Reach data will be collect through Qualtrics. Creating knowledge products, like a website, require iterative evaluation. Findings will lay the foundation for continued development and improvement of website content. Evaluating reach will help ensure recruitment efforts promote equity, diversity, and inclusion principles. Funding source: Saskatchewan Health Research Foundation