



33<sup>RD</sup> ANNUAL CONFERENCE

# AASP2018

Toronto, Canada  October 3 – 6

## CONFERENCE ABSTRACTS



JOINT MEETING WITH



**Association for Applied Sport Psychology – 2018 Conference Abstracts**

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# Keynote Speakers

Wednesday, October 3

## OVERPROMISE & UNDER DELIVER: THE STORY OF ORGANIZED SPORT

**John Amaechi, OBE, Organizational Psychologist, Chartered Scientist, and New York Times Best-Selling Author**

We often wax lyrical about the transformational, developmental and social justice potential of sport. But rarely do we see sport-for-development or elite level sport being truly held accountable for the numerous and varied explicit promises made on behalf of organized sport. John will share how we must hold sport to a higher standard and critically evaluate the way amateur and elite sport programs are currently delivered. Changes need to be made so that the 99% of participants who participate but do not become sustainable, elite athletes receive the developmental “riches” promised, instead of leaving having experienced life altering, psychological, emotional and physical harm, not to mention suffering economic exploitation.



*Dr. John Amaechi, OBE helps individuals and organizations to improve communication, leadership and culture as a way to grow, improve performance and achieve goals. His psychological insight helps people understand the barriers to achievement and overcome them, transforming and inspiring. John understands motivation and personal development and the roots of success and enables these traits to flourish. He also considers the nature of competition, the importance of diversity in organizational achievement, and aligning personal and business values and ethics. John's experience is unique and his skills appeal to people from all walks of life. He was awarded an OBE for work in the voluntary sector in 2011.*

*In addition to running his own international strategic performance consultancy, Amaechi Performance Systems, based in London and New York, John is also a Research Fellow at the University of East London and currently holds various board and trustee positions. In his previous career, John was the first Brit to have enjoyed a successful career in the NBA and to be inducted into the US Basketball Hall of Fame. He won widespread respect for his ability to overcome adversity, including life-altering injury. Despite never having picked up a basketball until the age of 17, John went on to a 'starting five' position with the Cleveland Cavaliers in just six years. He was described by one commentator as 'a player with little innate physical talent, who rose to remarkable heights on the back of terrific will and a tremendous strategy.' He puts this down to drive, planning and perseverance as much as physical skill; characteristics he now seeks to instil in others. After retiring from basketball, John pursued his PhD in psychology, co-authoring a paper on self-esteem and goal setting as well as becoming a leadership and performance expert. He also founded the ABC Foundation, which seeks to increase physical activity amongst youths and encourage community cohesion.*

Thursday, October 4

## THE CULTURE SHIFT: DEVELOPING A HIGH-PERFORMING TEAM WITHIN A COMPLEX ENVIRONMENT

**Mark Shapiro, Toronto Blue Jays, President & CEO**

Getting people to effectively work together isn't as simple as establishing a clear goal and trying to achieve it, especially within the context of a professional sports team. Often overlooked is the importance of first creating and then fostering the right culture, based on a shared set of values. Mark Shapiro has been effectively building high-performing teams for more than two decades in professional baseball. He shares with us his learnings on leadership and decision-making, the role sport psychology plays in baseball, and the fundamental need to manage culture change in an ever-evolving landscape.



*Now entering his 27th year in baseball, Mark Shapiro is one of the rare executives in Major League Baseball that has had the opportunity to lead and impact all aspects of the game. Widely considered one of MLB's top executives, he was appointed as President & CEO of the Toronto Blue Jays in November 2015, where he oversees both baseball and business operations for the club. following 24 seasons within the Cleveland Indians organization.*

*Mark spent his first 24 seasons within the Cleveland Indians organization, where he began as an assistant in Baseball Operations in 1992. He quickly moved up the ranks and spent five seasons (1994-98) overseeing all aspects of the Indians' player development system as Director of Minor League Operations, before becoming Vice President of Baseball Operations & Assistant General Manager from 1999-2001. He most recently served as President of the Indians' organization for the last five years (2011-15), after spending the previous nine seasons (2002-10) as the Executive Vice President and General Manager.*

Friday, October 5

## INTERVIEW WITH ERIC LINDROS, HOCKEY HALL OF FAMER

### 2018 PERFORMANCE EXCELLENCE RECIPIENT

The recipient of AASP's 2018 Performance Excellence Award, Eric Lindros will share a narrative story of his earliest time "on the ice" through his entire Hall of Fame Professional and Olympic career, providing valuable insights into his mental approach throughout. Katy Tran Turner of the Buffalo Sabres will interview Eric about the utilization of sport psychology and mental conditioning in the present day NHL as well the impact of concussions on the sport. After hanging up his skates, Eric has been active in promoting concussion research, which continues to be a problem in sport at all levels.



*Over the course of his distinguished NHL career, Lindros accumulated career totals of 372 goals and 493 assists for 865 points. The 6-time NHL All-Star was the recipient of both the Lester B. Pearson Award (NHLPA Most Outstanding Player) and the Hart Trophy (Most Valuable Player) in 1994-95. 'The Big E', as he came to be known within the hockey world, made an immediate impact on the league with his offensive talent and imposing physical presence.*

*Lindros is identified by most fans by his time in Philadelphia where he played eight seasons with the Flyers. The bulk of these years saw Lindros center the famous 'Legion of Doom' line with John LeClair and Mikael Renberg. Lindros captained the Flyers from 1994-95 through March 1999. He retired from hockey in November 2007 after sustaining several concussions during this career, and now lives in Toronto where he pursues business interests,*

*and continues to enjoy playing the game of hockey with friends.*

### Coleman Griffith Lecture

## TAKING THE PULSE AND LOOKING TO THE FUTURE

**Penny Werthner, University of Calgary**

This lecture will examine the current state of the field of sport psychology and explore what we might want to be considering to advance the future of our profession - considerations of diversity, psychophysiology, technology, and the importance of coach-athlete-sport psychologist relationships.



*Penny Werthner, PhD, is Professor and Dean of the Faculty of Kinesiology at the University of Calgary, Alberta, Canada. Her research is in the area of life-long learning from a pedagogical perspective, particularly in the area of high performance coaches; women and sport; and the use of heart rate variability biofeedback and neurofeedback for optimal performance in high performance sport. She is a former Olympic athlete in Athletics and has worked with Canadian coaches and athletes over the span of 12 summer and winter Olympic Games, from the 1988 winter Olympic Games in Calgary, Canada to the more recent 2016 summer Olympic Games in Rio de Janeiro, Brazil and 2018 winter Olympic Games in PyeongChang, Korea.*

**Saturday, October 6**

**Keynote Panel**

## **LESSONS LEARNED DURING THE PYEONGCHANG OLYMPICS: AN INTERNATIONAL PRACTITIONER PERSPECTIVE**

**Alexander Cohen**, United States Olympic Committee, USA

**Carolina Lundqvist**, The Swedish Olympic Committee & Linköping University, Sweden

**Karen MacNeill**, MacNeill Performance Consulting, Canada

**Jean François Ménard**, Kambio Performance, Canada

**Moderator: Lindsay Thornton**, United States Olympic Committee, USA

Practitioners from the United States, Canada, and Sweden share their experiences preparing for and delivering Sport Psychology services for the 2018 PyeongChang Olympic Games. Through an International lens, practitioners will share highlights, challenges, and how they navigated the socio-cultural landscape of the Games.



*Dr. Alexander Cohen was appointed Senior Sport Psychologist at the U.S. Olympic Committee in 2011. Working primarily with winter sports, Dr. Cohen provides sport psychology consultation and counseling for national teams, athletes and coaches at the Olympic Training Centers, at National Governing Body training sites and at national and international competitions. As a licensed psychologist and certified sport psychology consultant, Dr. Cohen assists coaches in creating mastery performance environments that promote psychological and physical skill acquisition and execution. He works directly with athletes to maximize performance readiness through consistent preparation, enhanced resilience, and mindful self-regulation, helping athletes to focus on the right things, at the right time, every time. Dr. Cohen earned his bachelor's degree in psychology from Texas A&M, and later completed his master's in sport psychology and Ph.D. in counseling psychology from Florida State University. He completed a pre-doctoral internship with a specialization in sport psychology at Kansas State University, and a post-doctoral fellowship specializing in sport psychology at the University of Georgia.*



*Carolina Lundqvist is a Ph.D. in psychology, associate professor in sport sciences and licenced psychotherapist. She is the coordinator of performance psychology at the Swedish Olympic Committee and is working applied with a variety of winter and summer sports within the Swedish Olympic Committee's support program. In this work, she has supported elite athletes (and their coaches) at several World Championships, European Championships and World Cups. She attended the Rio (2016) and PyeongChang (2018) Olympic Games as fully accredited by the NOC. Besides her applied work, she is also a senior lecturer at the Department of Behavioural Sciences and Learning at Linköping University, where she is teaching in various areas of psychology (e.g., sport psychology, clinical psychology, and social psychology). Her current research interests are, among all, focused on elite athletes' well-being and quality of life and psychological performance enhancement in the elite sport context.*



*Dr. Karen MacNeill has the unique experience of having both competed and consulted on the World Stage. She is a registered psychologist and performance consultant with over 18 years of experience. She has worked with athletes competing at the last 4 Olympic Winter Games, and competed herself at the international level for over a decade. Most recently, she was the Lead Mental Health Counsellor for the Canadian Olympic Committee and Mental Performance Consultant for Ski Cross Canada at the 2018 Winter Olympics in Korea. As part of the day to day routine, Karen thrives having a broad scope of practice. She has fulfilled contracts with Canadian Olympic Committee, several National Sport Organizations, Compete to Create and multiple fortune 500 companies to name a few. More recently, Karen has become a partner and Chief Product Officer with a digital health media company, Headversity, which offers innovative education through a blended learning program (on-site and on-line) to help people to build mental resilience and thrive. Karen's career achievements and volunteer efforts have been publicly recognized as she was a recipient of the Avenue Top 40 under 40 Award. Her passion and drive for helping others be their best also translates into her life as a mother, wife, and outdoor enthusiast.*



*Jean François Ménard is widely recognized for his contributions to the field of performance psychology. At the age of 25 and fresh out of graduate school, he joined the world famous entertainment company Cirque Du Soleil as their performance psychology specialist. His main focus was to help the artists perform on demand up to 450 times a year. He founded Kambio Performance in 2013 and has since become one of the most sought-after mental performance specialists in Canada. Recently, he helped Canadian Olympians win 6 medals during the Rio and PyeongChang Olympic Games (4 golds). He is an accomplished speaker with over 400 keynote speeches delivered to a wide range of results-oriented professionals in North America, Europe and Asia. His client list includes organizations such as Cirque Du Soleil, FBI, Cisco, Roche, Canadian Olympic Committee, Western Union, and elite performers like Olympics gold-medalists, X-Games champions, NHL players and world-acclaimed musicians. He is based in Montreal, Québec, Canada.*

## CE WORKSHOPS

### CE-01

#### A DIVERSITY COMMITTEE SPONSORED PANEL ON CRITICAL AND CULTURAL SPORT PSYCHOLOGY CONSULTING PRACTICES

*Rebecca Busanich, St. Catherine University, USA;  
Tanya Prewitt-White, University of Illinois-Chicago, USA;  
Robert Schinke, Laurentian University, Canada;  
Shannon Baird, Performance Center/AFSC, USA*

Numerous calls have been made for practitioners in sport psychology to become more critical and culturally aware, citing the advantages that cultural sport psychology (CSP) perspectives may add to our applied work (Butryn, 2002; Fisher, Butryn & Roper, 2003; Gill, 2000; Ryba & Wright, 2005; Schinke & Hanrahan, 2006, 2009). The importance of culturally competent approaches to applied sport psychology is underscored by AASP's recent addition of Diversity & Culture as a required knowledge area for CMPC certification, as well as the numerous textbooks and chapters that have centered around CSP as a growing and essential aspect of our field (McGannon, Schinke, & Busanich, 2014; Ryba, Schinke, & Tenenbaum, 2010; Schinke & Hanrahan, 2009; Schinke, McGannon, & Smith, 2016).

In this AASP Diversity Committee sponsored panel, four sport psychology/mental performance professionals will share their consulting praxes and experiences that draw upon, and infuse, critical and cultural sport psychology frameworks. The panelists will include: 1) a professional who integrates feminist practices into her work with athletes at an all-women's college; 2) a veteran consultant of the Canadian national team who will speak about the multiplicities of identities and inclusive practices employed with national elite level athletes; 3) a CMPC who will reflect upon her personal intersectional identity, in particular her Whiteness, and its impact on her work with athletes of color experiencing overt and covert racism as well as microaggressions in sport; and 4) a CMPC who will explore how her sexual identity and critical self-reflexive praxis influences her work with soldiers. After each panelist shares her/his experiences, audience members will have an opportunity to interact with the panel and engage in a discussion on how consultants might become more critically reflective practitioners and/or incorporate cultural sport psychology practices into their work.

### CE-02

#### MENTORSHIP AND SUPERVISION IN APPLIED SPORT PSYCHOLOGY TRAINING: STRATEGIES TO PROMOTE STUDENT COMPETENCE

*Sarah Castillo, National University, USA;  
Doug Barba, National University, USA;  
Traci Statler, Cal State Fullerton, USA;  
Kristen Dieffenbach, West Virginia University, USA*

Perhaps the most essential element in the training of neophyte practitioners is quality supervision and mentorship. In fact, it is the mentorship experience that translates that education into competent and appropriate performance interventions. Further, a quality supervision experience leads to trainee satisfaction

in ethical, professional, and personal competencies (Foltz, et al, 2015), suggesting that the mentoring relationship can be a truly transformative experience. Quality supervision and mentorship has been called for throughout the literature, although relatively little training or consensus in the "how to's" of providing such mentorship has been developed (Fogaca, 2017; Watson, et al, 2004). Targeted to graduate program directors and faculty, applied practitioners providing supervision within their private practice, and individuals seeking to expand their professional competencies, this workshop addresses the underlying importance of creating quality supervision and mentorship experiences, while offering well-worn strategies and ideas for providing supervision in both traditional and online environments. Further, the updated supervision and mentorship requirements of AASP's CMPC certification, will be discussed in order to assist attendees with structuring the supervision experience to allow students to successfully pursue CMPC status. The workshop will incorporate a combination of didactic and experiential learning activities designed to enhance attendees' delivery of mentorship services.

### CE-03

#### MANAGING DECISION-MAKING DILEMMAS: NAVIGATING YOUR ETHICAL EXPEDITIONS!

*Dolores Christensen, University of Oklahoma, USA;  
Erica Beachy, Becker College, USA;  
Rachel Walker, University of Delaware, USA*

Consideration of, and adherence to, ethical decision-making processes within sport, exercise, and performance psychology (SEPP) service delivery is a central tenant to competent practice. Given the unique demands of the diverse and varied contexts and populations that exist within SEPP, this ethical decision-making process can be made more complicated for practitioners. Literature in the applied SEPP field has discussed the importance of ethical practice at length (Aoygai & Portenga, 2010; Etzel & Watson, 2014, 2017; Whelan, Hill, Ginley, & Meyers, 2014) but the actual process of on-the-spot decision-making in SEPP settings can still be challenging for novice and experienced practitioners alike.

Given these complexities, the purpose of this workshop is to provide the opportunity for "live" peer consultation within small-group discussions to assist attendees as they work through three different ethical scenarios common to SEPP work: multiple relationships, teletherapy, and addressing the unethical behavior of SEPP colleagues.

Each ethical dilemma will be framed in a format where participants will "decide" how to react to varying information provided in the given dilemma. The American Psychological Association Ethical Code (2010), American Counseling Association Code of Ethics (2014), and the Association for Applied Sport Psychology Ethical Code (1994) will be utilized as references during the ethical decision-making process.

Following this workshop participants will: 1) be able to identify the core ethical tenants of SEPP, 2) develop a greater understanding of the ethical decision-making processes available to SEPP professionals during ethical dilemmas, 3) understand where to access the APA, ACA, and AASP ethical codes and how to utilize them, and 4) apply ethical reasoning to various decision-making scenarios in SEPP practice.

## CE-04

### UPPING OUR GAME: ENHANCING SUPERVISION AND MENTORING IN SPORT PSYCHOLOGY

*Jana Fogaca, University of Wisconsin – Green Bay, USA;  
Gily Meir, USA; Lauren Tashman, Align Performance, LLC, USA*

Supervision is a distinct professional practice that helps maintain the standards of a profession, and ensures that trainees develop the necessary competencies for practice (Bernard & Goodyear, 2014). The responsibility associated with the provision of supervision is of high importance as the supervisor serves as a gatekeeper into the profession and is accountable for protecting the welfare of clients (Watson, Zizzi, Etzel, & Lubker, 2004). Yet, there has been limited opportunity to develop and hone one's supervision skills or share experiences. Given the importance of supervision as well as the changes in certification requirements, devoting more attention to the process and practice of supervision is necessitated. Therefore, the goal of the workshop is to enhance participants' supervision knowledge, skills, and approach by familiarizing them with various supervision structures and practices that have been identified as effective in developing supervisees' competence to provide sport psychology services. This interactive workshop will include: analysis and practice of scientifically based supervision approaches and practices; reflection on one's experiences, approaches, and challenges in providing supervision within different sport psychology programs and contexts; discussion of developmental and cultural considerations in supervision; and the opportunity to identify a plan for optimizing one's approach to supervision.

## FEATURED SESSIONS

### FEA-01

#### 5 SLIDES IN 5 MINUTES: ENGAGING EDUCATION IN SPORT & EXERCISE PSYCHOLOGY

*Amber Shipherd, Texas A&M University - Kingsville / Next Level Mind Consulting, USA;  
Noah Gentner, Humber College, Canada;  
Peter Kadushin, Western State Colorado University, USA;  
Tanya Prewitt-White, University of Illinois-Chicago, USA;  
Sarah Carson Sackett, James Madison University, USA;  
Brandonn Harris, Georgia Southern University, USA*

This session will cover examples of teaching activities to highlight SEP principles, engage students, and implement technology into the classroom. This exciting format will share practical examples of teaching activities to enhance student learning.

### FEA-02

#### CASE STUDIES FOR CERTIFIED MENTAL PERFORMANCE CONSULTANTS (CMPC)

*Phillip Post, New Mexico State University, USA;  
Greg Young, James Madison University, USA*

This workshop, open only to Certified Mental Performance Consultants (CMPC), is specifically designed to encourage the process of collaboration, networking and peer consulting among practitioners. Two cases will be presented in a

workshop format to facilitate a guided dialogue in terms of case conceptualization, challenges, intervention design, and results. Attendees will have the opportunity to discuss their own conceptualization and possible intervention strategies for each case presented.

### FEA-03

#### DIVERSITY AND INCLUSION WITHIN CANADIAN SPORTING CONTEXTS: CONTEMPORARY PERSPECTIVES

*Robert Schinke, Laurentian University, Canada;  
Janelle Joseph, University of Toronto, Canada;  
Caroline Fusco, University of Toronto, Canada*

This lecture, led by Dr. Robert Schinke, will feature topics on race, gender, immigrant status and culture within Canadian sporting contexts.

### FEA-04

#### GETTING PUBLISHED IN THE JOURNAL OF APPLIED SPORT PSYCHOLOGY (JASP), JOURNAL OF SPORT PSYCHOLOGY IN ACTION (JSPA), AND CASE STUDIES IN SPORT AND EXERCISE PSYCHOLOGY (CSSEP)

*Stephen Mellalieu, Cardiff Metropolitan University, UK;  
Ian Maynard, University of Essex, UK;  
Stewart Cotterill, AECC University College, UK*

Are you thinking about which Journal to send your manuscript you've prepared from a high quality applied sport/exercise psychology research project? Do you want to share with the applied sport psychology profession the latest conceptual or empirical approach you adopt in your own professional practice? Do you have some insightful professional practice experiences that you feel would be ideal to share with your fellow practitioners to enhance their development?

### FEA-05

#### CERTIFICATION INFORMATION FOR CURRENT CMPCs: RECERTIFICATION PROCEDURES, MENTORING, AND GRADUATE CURRICULA

*Robin Vealey, Miami University, USA;  
Charles Maher, Cleveland Indians, USA;  
Elizabeth Shoenfelt, Western Kentucky University, USA;  
Brandonn Harris, Georgia Southern University, USA*

The purpose of this presentation is to provide information about the Certified Mental Performance Consultant® (CMPC) certification program for current CMPCs, individuals interested in mentoring, and sport psychology graduate program directors. Mandatory recertification represents a commitment to the ongoing professional development of CMPCs, and this recertification process is overviewed. Seventy-five continuing education hours are required over each 5-year recertification period, including 6 CEUs in Professional Ethics, 6 CEUs in Diversity, and 6 CEUs in Mentorship/Supervision (required for mentors only). Examples of acceptable CE activities are provided, and the prorated system of CE requirements for CMPCs recertifying between 2017 and 2021 are explained. The mentored experience requirements for the certification program are overviewed, including the revised direct knowledge of services requirement. All mentors must be current CMPCs or on the Registry of Approved Mentors. Procedures for taking the



certification exam are overviewed, including the requirement that all CMPCs successfully complete the exam prior to their recertification application. Those recertifying in 2018 have until April 1, 2019 to complete the exam. Implications for graduate program directors are provided, including curricular strategies and mentoring considerations. Graduate programs are encouraged to advise students to take multiple courses in the eight knowledge areas of the certification program to help prepare them for the breadth and depth of knowledge needed in their professional careers.

## FEA-06

### STUDENT WORKSHOP: BEGINNING STAGES OF STARTING AN APPLIED CONSULTING BUSINESS

*Cindra Kamphoff, Private Practice & Minnesota State University, USA;*  
*Tim Herzog, Reaching Ahead Counseling and Mental Performance, USA*

This workshop will bring a combination of experiences from successful practitioners in private practice on how to start an applied consulting business, with a specific focus on the initial steps. The workshop will cover five main topics (a) Primary considerations, (b) Early stage obstacles (Poczwadowski & Sherman, 2011; Simons & Andersen, 1995), (c) Entity logistics, (d) Gaining entry (Fifer, Henschen, Gould & Ravizza, 2008), and (e) Next steps. The purpose of the workshop is then to help students critically think about, and begin to construct, a step-by-step plan for how to logistically begin a private practice.

## FEA-07

### DEVELOPING PERSONAL AND TEAM RESILIENCE IN ELITE SPORT: RESEARCH TO PRACTICE

*Mustafa Sarkar, Nottingham Trent University, UK;*  
*Peter Haberl, USOC, USA;*  
*Duncan Simpson, IMG Academy, USA;*  
*Cindra Kamphoff, Private Practice & Minnesota State University, USA;*  
*Göran Kentta, The Swedish School of Sport and Health Science, Sweden*

Resilience and its development has arguably become one of the most talked about topics in sport over the last few years. In terms of the media, hardly a day passes without an athlete or coach being quoted reflecting on the significant role of resilience in performing under pressure. From a research perspective, there has been a growing body of evidence investigating personal and team resilience in elite sport (Morgan, Fletcher, & Sarkar, 2013; 2015; 2017; Sarkar & Fletcher, 2016, 2017, 2018). Underpinned by resilience research, a special issue in the *Journal of Sport Psychology in Action* was brought together to provide practitioners with sound information about developing resilience that was immediately applicable to their applied work (Fletcher & Sarkar, 2016a). Since then, practitioners have been guided by evidence-based work in this area and have

seen it make a difference in the way that they practice. In this panel, we talk about how resilience research has informed applied practice. Specifically, Mustafa Sarkar talks about his programme of research on personal and team resilience in elite sport, and how this shaped the Mental Fortitude training programme (Fletcher & Sarkar, 2016b; Sarkar, 2018) that has started to be used by a variety of elite sport organisations. Subsequently, experienced sport psychology practitioners provide accounts of how this training programme, and other resilience research, has informed their private practice (Cindra Kamphoff) and their work in organisations such as the United States Olympic Committee (Peter Haberl) IMG Academy (Duncan Simpson), and the Swedish Paralympic Committee (Göran Kentta).

## FEA-08

### BECOMING A CERTIFIED MENTAL PERFORMANCE CONSULTANT (CMPC): INFORMATION FOR STUDENTS AND NEW APPLICANTS

*Vicki Tomlinson, John F. Kennedy University, USA;*  
*Jack J. Lesyk, Ohio Center for Sport Psychology, USA;*  
*Robert Harmison, James Madison University, USA;*  
*Nick Galli, University of Utah, USA;*  
*Damien Clement, West Virginia University, USA*

The eligibility requirements, application and review process, and certification exam procedures for CMPC certification will be discussed. The information provided will be directed to students, as well as to experienced professionals, who wish to seek certification. The standard application for CMPC certification requires an appropriate graduate degree related to sport science or psychology, and coursework or educational experiences to fulfill the eight knowledge area requirements (Professional Ethics and Standards, Sport Psychology, Sport Science, Psychopathology, Helping Relationships, Research Methods and Statistics, Psychological Foundations of Behavior, and Diversity and Culture. A 400-hour mentored experience includes a minimum of 200 hours of direct client contact and a minimum of 50 hours of mentorship, including 10 hours of direct knowledge of services. All mentors must be current CMPCs or on the Registry of Approved Mentors. Experienced candidates may seek CMPC certification through the Experienced Practitioner Pathway, which requires an appropriate graduate degree, professional experience in applied sport psychology, knowledge of and contributions to the field, and evidence of having received mentorship or peer consultation while delivering sport psychology services. Once standard or experienced practitioner candidates have received approval from the Certification Council that they have fulfilled all application requirements, they can sit for the CMPC certification exam that is available at Pearson VUE test sites. Successful completion of the exam results in candidates receiving certification as a Certified Mental Performance Consultant® or CMPC. Recertification is required every five years to maintain certification as a CMPC, including required continuing education activities. Questions and discussion will be invited from attendees throughout the workshop).

## **FEA-09**

### **CANADIAN PANEL ON CURRENT TRENDS AND HOT TOPICS IN MENTAL HEALTH AND PERFORMANCE IN HIGH PERFORMANCE SPORT**

*Natalie Durand-Bush, Univeristy of Ottawa, Canada;  
Shaunna Taylor, University of British Columbia, Canada;  
Sommer Christie, University of Calgary, Canada;  
Frank van den Berg, Canadian Sport Institute Calgary, Canada*

This session will engage a trans-Canada expert panel who will present on a variety of hot topics from today's high performance sport landscape. Presenters will share current Canadian perspectives on areas of applied prevention, treatment and intervention strategies in mental health and performance.

## **FEA-10**

### **STUDENT WORKSHOP: USING MINDFULNESS TO ENHANCE SPORT PERFORMANCE**

*Sarah Castillo, National University, USA;  
David da Silva, IMG Academy, USA*

This workshop will bring a combination of experiences from experienced practitioners on how to deliver mindfulness strategies to athletes. The workshop will cover five main topics (a) Introducing mindfulness to athletes, (b) creating awareness, (c) teaching non-judgmental thinking, (d) remaining in the present moment, and (e) strategies to implement facilitation of utilizing mindfulness. The purpose of the workshop is then to help students gain a better understanding of mindfulness as a tool to enhance athletic performance, as well as practical tools for how to convey the appropriate intervention to athletes.

## **FEA-11**

### **5 SLIDES IN 5 MINUTES: TEAM BUILDING**

*Scotta Morton, University of Missouri, USA;  
Ashwin Patel, Humber University, Canada;  
Tracy Carrington, Mind Game Performance, LLC, USA,  
Jennifer Arnold, United States Military Academy, USA;  
Nick Bartley, IMG (A)cademy – USASOC, USA*

The Team Building 5 Slides in 5 Minutes will highlight successful practitioners' approaches to team building within different performance contexts. Grounded in evidence based practices, presenters will discuss their population considerations to best translate research into dynamic applied team building delivery. Attendees will leave this session with a better appreciation of the importance of research and group identities in developing their own team building training.

## **FEA-12**

### **TAKING THE CMPC EXAM: PREPARATION + STRATEGY = SUCCESS**

*Traci Statler, Cal State Fullerton, USA*

For any endeavor to produce a successful outcome, effective preparation must be a key component. As the old adage states, "Give me six hours to chop down a tree, and I will spend the first four sharpening the ax." This 60 minute session will provide guidance on effective preparation for the CMPC® exam by reviewing the 15 fundamental sport psychology Knowledge Groups and the percentage of the test each will comprise. Strategies and general tips for successful completion of multiple choice exams will be shared. Using sample test questions, participants will gain an understanding of how effective exam questions are structured as well as learn important skills for maximizing their odds of correct responses. *AASP is conducting this session independent of the CMPC Certification Council.*

## LECTURES

### LEC-01: Consulting & Interventions

#### LEC-01A

##### THE CARE-PROJECT: EMPOWERING ATHLETES TO FORM BETTER RELATIONSHIPS WITH THEIR COACHES

*Sophia Jowett, Loughborough University, UK;  
Svenja Wachsmuth, Eberhard Karls University, UK;  
Chris Harwood, Loughborough University, UK;  
Xinmiao Zhong, Loughborough University, UK*

A trusting, committed and collaborative coach-athlete relationship is the foundation for effective coaching, facilitating not only sporting success but also the personal and professional development of both individuals (Jowett, 2017). While previous research mainly focused on coaches' responsibilities in forming close and effective bonds with their athletes, for example through democratic leadership and autonomy-supportive behaviors (e.g., Smith et al., 1979), only little has been done to promote athletes' interpersonal skills. Yet, relationships are a dyadic process in which each member needs to play their part to forming long-lasting and successful partnerships. Therefore, the CARE-project aims at improving athletes' awareness for and skills to form high quality coach-athlete relationships.

The intervention is based on the extensive research on coach-athlete relationships following the 3Cs+1C model (Jowett, 2007), and consists of three video-presentations targeting 1) the importance of effective coach-athlete relationship, 2) communicative strategies to enhance relationship quality, and 3) the constructive management of coach-athlete conflict. These lecture-like introductions are supported by practical insights of elite sport participants (i.e., coaches, athlete, sport psychologists) as well as by activities and quizzes to facilitate learning.

The intervention is conducted in February/ March 2018 and involves performance athletes who are attending a university entry course (N=30). A mixed-methods control group design was chosen to evaluate the effectiveness of the CARE-project, with the control group taking part in a traditional PST intervention. A quantitative pre- and post-assessment is conducted via a survey battery (e.g., CART-Q, PANAS, ASQ, AEQ) and is complemented by qualitative interviews with athletes and their coaches. It is expected that athletes enrolled in the CAREproject show enhanced abilities to form effective coach-athlete relationships which transfer into improved perceptions of athlete engagement, performance satisfaction, and positive affect.

#### LEC-01B

##### NEUROFEEDBACK TRAINING ENHANCES ICE-HOCKEY SHOOTING PERFORMANCE

*Sommer Christie, University of Calgary, Canada;  
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Penny Werthner, University of Calgary, Canada*

Although research to date generally suggests that neurofeedback training (NFT) and biofeedback training (BFT) enhances sport performance (Mirifar, Beckmann, & Ehrlenspiel,

2017), there remains a dearth of scientific evidence derived from well-controlled studies directly examining the impact of NFT on sport performance (e.g., Thompson, Steffert, Ros, Leach, & Gruzelier, 2008). This study investigated the effect of NFT on ice hockey shooting performance. Eighteen University level hockey players were randomly assigned to NFT/BFT or control groups following five baseline shooting performance assessments. During the intervention phase, 15 shooting performance assessments were conducted for all participants and the NFT group received 15 sessions of NFT/BFT prior to each shooting assessment. During each of the 20 total shooting assessments, participants completed a total of 50 shots on net taken on five possible random targets that illuminated within a random foreperiod. This randomization of time and location enabled evaluation of cue driven cortical activity during an externally-paced sport skill. EEG data were collected during the baseline shooting performance assessment (pre-intervention) and during the final shooting performance assessment (post-intervention). Results of generalized estimating equations (GEE: Zeger & Liang, 1986) analysis found a statistically significant increase in trend for performance for both the NFT group ( $b_1 = .630$ ,  $SE_{b_1} = .097$ ,  $\chi^2(1) = 42.015$ ,  $p < .001$ ) and for the control group ( $b_2 = .285$ ,  $SE_{b_2} = .109$ ,  $\chi^2(1) = 6.812$ ,  $p = .009$ ). Testing of equality of slope revealed a significant difference between performance trends ( $z = 2.36$ ,  $p = .018$ ) indicating that the NFT group enhanced performance more than the control group. This study, therefore, suggests that NFT is effective for enhancing ice hockey shooting performance.

#### LEC-01C

##### ANXIETY, ATTENTIONAL CONTROL, AND PERFORMANCE: QUIET EYE TRAINING IN DIVISION I BASEBALL

*Meaghan Sullivan, University of Missouri, USA*

Introduction: The quiet eye (QE) represents the time needed to cognitively process information being fixated or tracked and to focus attention on the demands of the task (Vickers, 2009). Research indicates that an optimal combination of QE, attentional control, and gaze behavior is linked with superior skill execution (Harle & Vickers, 2001) and that the successful integration of these attentional behaviors may also combat the negative effects that anxiety can have on performance (e.g., Vine & Wilson, 2011). This mixed-method study was the first known attempt to implement QE-training with high-level athletes in a pressurized interceptive timing task (Vickers, 2016). More specifically, its aim was to explore how the use of QE instructions impacted the hitting performance of Division I baseball players during a pressure situation. Method: Seventeen Division I baseball players (mean age = 19.76 years,  $SD = 1.09$ ) volunteered to participate. Nine participants comprised the QE group and eight comprised the control group. The intervention lasted for 13 days and consisted of a baseline assessment, three training days, a retention test, pressure test, second retention test, and a final written questionnaire. Results/Discussion: The results showed that, despite experiencing greater cognitive anxiety, the QE group achieved and maintained a higher average exit velocity over the course of the intervention as compared to the control group, and the QE group also demonstrated superior hitting performance during actual competition, as measured by batting average, on-base percentage, slugging percentage, and on-base plus slugging percentage. Moreover, inductive analysis (Merriam, 2009) of the participants' written feedback indicated that the QE group reported greater task-focus, less distractibility, improved pitch perception, and reduced muscle tension. Taken together, these findings provide strong

support for implementing QE training in baseball, particularly as it relates to preserving performance under pressure. Limitations and future directions will be discussed.

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## LEC-02: Mental Health

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### LEC-02A

#### **MENTAL HEALTH FIRST AID (MHFA) FOR THE UK ARMED FORCES**

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Education programmes in mental health literacy can address stigma and misunderstandings of mental health (Hadlaczky et al., 2014). The purpose of this study was to investigate longitudinal change in knowledge, attitudes, and confidence around mental health issues following participation in a bespoke Mental Health First Aid (MHFA) training course for the UK Armed Forces programme. A mixed methods design, comprising quantitative surveys and qualitative interviews, was adopted to investigate the impact of MHFA training. A survey assessed pre- and post-training changes in trainees (n=602) knowledge, attitudes, and confidence around mental health issues, and at 10-months post attendance (n=120). Semi-structured telephone interviews (n=13) were conducted at follow-up, 6-months post training attendance. Quantitative findings revealed a significant increase in knowledge, attitudes, and confidence from pre- to post-intervention (i.e. the training course). Importantly, this effect was sustained at 10-months follow-up. Qualitative findings revealed an increased knowledge, understanding, and confidence in discussing and communicating with people who have mental health issues. This included improved listening skills, advice giving, and confidence in asking difficult questions regarding mental health issues. Specifically, participation facilitated an 'ambassador' type role for participants. This study is the first to have investigated the effect of MHFA training in an Armed Forces community. These findings provide evidence of increased participant knowledge regarding mental health and enhanced confidence and aptitude for identifying and supporting people with mental health problems. Results suggest that such an intervention can provide support for personnel, veterans, and their families, regarding mental health in Armed Forces communities.

### LEC-02B

#### **CROSSING THE BOUNDARY LINE: UNDERSTANDING IDENTITY AND OVERCONFORMITY IN COLLEGIATE VOLLEYBALL PLAYERS**

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Typically, athletes' successful performances are openly praised, but, for many, the means they use to obtain those performances remain in the shadows. Existing research

indicates that, in an effort to reaffirm the athlete identity and/or gain peer acceptance, athletes engage in behaviors including playing while injured, disordered eating, overtraining, excessive violence, hazing, performance-enhancing substance use, and disordered exercise (Atkinson, 2011; Coker-Cranney et al., 2018; Hughes & Coakley, 1991; Waldron & Kowalski, 2009; Waldron & Krane, 2005). Prevalence rates for many of these behaviors (e.g., Bracken, 2012; Greenleaf et al., 2009; Rexroat, 2014) indicate a need to better understand the mechanisms by which athletes willingly employ potentially self-injurious behaviors. The present study applied a psychocultural life story approach (Peacock & Holland, 1993) to assess the ways in which female collegiate volleyball players experienced identity development and overconformity. A life story interview (adapted from McAdams & Guo, 2014), in combination with self-report measures including the Athlete Identity Measurement Scale (AIMS; Brewer & Cornelius, 2001) and Social Motivation Orientation in Sport Scale (SMOSS; Allen, 2003), a semi-structured interview, and a written exercise, were used to collect data. Data were analyzed deductively, using a provisional coding (Saldana, 2013) framework developed from existing theory and research that allowed the data to be compared against a pre-defined set of codes that were then adapted to meet the needs of the available data. Additionally, data were analyzed using a narrative approach to illuminate how each athlete's life stories were structured. Results were synthesized into a single creative nonfiction (Caulley, 2008) and word cloud (McNaught & Lamb, 2012). Throughout the presentation, audience members will explore female collegiate volleyball players' identity development and encounters with overconformity. Moreover, they will be exposed to novel ways of eliciting, analyzing, and presenting data.

### LEC-02C

#### **A LONGITUDINAL EXAMINATION OF MENTAL HEALTH AND WELL-BEING OF INDIVIDUALS WORKING IN PERFORMANCE SPORT**

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Stephen Mellalieu, Cardiff Metropolitan University, UK;  
Rich Neil, Cardiff Metropolitan University, UK;  
Christopher Wagstaff, University of Portsmouth, UK;  
Ross Wadey, St. Mary's University, Twickenham, UK*

Building on an emerging interest in the welfare of those responsible for facilitating the performance of athletes (e.g., Hings, Wagstaff, Anderson, Gilmore, & Thelwell, 2017; Neil, McFarlane, & Smith, 2016), this study longitudinally examined the well-being and mental health of coach and sport science staff operating within performance sport. Participants (n = 17; M age = 30.53, SD = 5.27) were sampled from UK and European performance departments and completed a bi-monthly online survey across a 12 month period. Measures included the Wellbeing Process Questionnaire (Williams & Smith, 2012) and Questionnaire for Eudaimonic Well-being (Waterman et al., 2010). Preliminary analysis indicated changes over time in job stress and feeling in control of work as well as a consistently high prevalence of participants having difficulties in withdrawing from work demands. Positive influences on well-being included a good work-life balance, time spent with family and friends, recognition and appreciation from work colleagues, and a good working environment. Negative factors included an unhealthy work-life balance, poor working relationships, excessive workload, and a lack of support in the work environment. The findings provide insight into the dynamic nature of, and challenges to, the well-

being of individuals working in performance environments. Specifically, the discrepancy between desired and current work-life balance, and the perceived lack of support received within the work environment. Consequently, it is proposed that supervisors of sport performance support teams need to consider: (a) staff workload; (b) the level of support offered to manage this workload; and (c) deployment of strategies to equip staff with the necessary resources to cope with the demands of operating in performance environments.

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### LEC-03: Collegiate Sport

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#### LEC-03A

##### ARE SMARTPHONES MAKING VARSITY ATHLETES SMARTER WHEN IT COMES TO OPTIMIZING THEIR LEARNING, PERFORMANCE, AND WELL-BEING?

*Poppy DesClouds, University of Ottawa, Canada;*  
*Natalie Durand-Bush, University of Ottawa, Canada*

Varsity athletes represent a group of high performers who are part of the iGeneration, a demographic of smartphone users characterized by significant technology and social media usage (Carrer, Rosen, & Rokkum, 2018). Yet, surprisingly, little to no research has examined the impact of smartphones and social media in sport (Durand-Bush & DesClouds, 2018). In an attempt to begin addressing this gap, the purpose of this qualitative study was to investigate varsity athletes' lived experiences with smartphones, to gain an in-depth understanding of the positive and negative ways technology is impacting their athletic performance and well-being. Twenty-one varsity athletes (12 women and 9 men) from nine different sports participated in one of five focus groups that comprised three to six participants each. The face-to-face discussions about athletes' views and experiences of smartphone usage (e.g., social media, procrastination, constant connection) lasted 75-minutes on average. The focus group data were subjected to an inductive thematic analysis (Braun & Clarke, 2006). Results brought to light the athletes' conflicted behaviours and feelings regarding the necessity of having and using a smartphone. Participants exhibited an acute awareness of both positive (e.g., organization) and negative (e.g., distraction) implications of their smartphone usage on their athletic experience and well-being. Salient themes pertained to disruption (e.g., focus, sleep), obligations to others (e.g., expectations, pressure), communication (e.g., fear of missing information, support), and self-control (e.g., low capacity and motivation to manage deleting behaviours). Themes are discussed in light of Zimmerman's (2000) model of self-regulated learning and Bauer and Baumeister's (2010) model of self-regulatory strength to provide practical implications (e.g., planning, self-monitoring, recovery, limitations on usage before and after training and competitions) for coaches, athletes, and mental performance consultants striving to optimize learning, performance, and well-being in the face of technological distraction.

#### LEC-03B

##### ACADEMICS VS. ATHLETICS: EXAMINING DIFFERENCES IN DOMAIN-SPECIFIC PERFECTIONISM BETWEEN "EXCELLING" STUDENT-ATHLETES AND THEIR TEAMMATES

*Zachary McCarver, Ithaca College, USA;*  
*Sebastian Harenberg, Ithaca College, USA;*  
*Justine Vosloo, Ithaca College, USA*

Perfectionism can be defined as striving for perfection and setting overtly high standards along with tendencies of hyper-critical evaluation of behaviors (Frost et al., 1990). It is a personality characteristic with adaptive and maladaptive outcomes (Stoeber & Otto, 2006). Recent research suggests that perfectionism may differ between domains. Intercollegiate athletes may experience higher perfectionism towards athletics than academics (Dunn et al., 2012). However, it is unknown whether this true for all athletes. This study examined the differences between excelling athletes (i.e., qualifying for Academic All-American) and their teammates. In total, 110 NCAA athletes (female n=40, Mage=19.56, SDAge=1.23) completed two domain-specific (i.e., academics and athletics) versions of Hewitt and Flett's (1991) Multidimensional Perfectionism Scale (HMPS). Excelling students (n=31) were those meeting the criteria for Academic All American (i.e., GPA>3.3, starters on their team). Data were analyzed with three ANOVAs with the domains (academic vs. athletic) as the repeated factor and the excelling status as the between-subjects factor. The dependent variables were the dimensions of the HMPS (i.e., self-oriented perfectionism, others-oriented perfectionism, socially-prescribed perfectionism). Athletes showed significantly higher perceptions of perfectionism in athletics compared to academics ( $F(1,105)=12.98-37.67$ ,  $p<.001$ ,  $\eta^2=.11-.26$ ) on all dimensions. Excelling students showed significantly higher self-oriented perfectionism ( $F(1,105)=6.23$ ,  $p=.014$ ,  $\eta^2=.06$ ) than their teammates across academics and athletics. No significant interaction effects were found. Confirming Dunn et al.'s (2012) findings, athletes showed higher perfectionism in athletics than in academics, supporting the centrality of competitive sport in a student-athlete's life. Excelling students only ascribed higher perfectionism towards themselves whereas external sources (e.g., others-oriented, socially-prescribed) of perfectionism were equal to other teammates. Implications for facilitating adaptive perfectionism in academically excelling student-athletes, limitations and future research directions will be discussed.

#### LEC-03C

##### MINDFUL SPORT PERFORMANCE ENHANCEMENT (MSPE) WITH COLLEGIATE SPORTS TEAMS: ASSESSING THE FAME PROFILE

*Timothy Pineau, Marymount University, USA;*  
*Carol Glass, The Catholic University of America, USA;*  
*Keith Kaufman, Keith A. Kaufman, Ph.D., PLLC, USA*

Mindful sport performance enhancement (MSPE) is an innovative mindfulness-based intervention for athletes with a growing base of empirical support. As described in the recent book on MSPE (Kaufman, Glass, & Pineau, 2018), an aspect of this empirical support has been measuring change on variables that comprise the FAME profile: Flow, Anxiety, Mindfulness, and Emotion Regulation (or experiential avoidance). These constructs have each been identified as having an impact on sport performance, and changes over the course of MSPE

reflect the potential of this intervention as an effective form of mental training for athletes.

This lecture will present the combined data from 4 separate Division III collegiate sports teams (N = 78) who received MSPE over a recent 2-year period. Sample sizes in sport psychology are often relatively small, making it difficult to detect statistically significant change and to obtain more generalizable results. The consistency across important environmental variables for these 4 teams (e.g., coming from the same university, being trained in MSPE by the same individual, receiving the training in the same location) that allows for the aggregation of these results provides a unique opportunity to examine the impact of MSPE for a large group of both male and female athletes across two different team sports.

Significant improvement in scores on all aspects of the FAME profile were found following MSPE training. These changes included an increased propensity to experience flow, a reduction in sport-related anxiety, an increase in the tendency to be mindful both within and outside of sport, and a decrease in experiential avoidance. Observations based on the experience of leading these MSPE groups (e.g., female athletes appearing more engaged with the training) will also be presented, along with related statistical analyses (e.g., significant gender X time interactions on several FAME indices).

### LEC-03D

#### EXAMINING PSYCHOLOGICAL STRESS AND COPING PERCEPTIONS AS PREDICTORS OF ATHLETE ENGAGEMENT

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Nikki Barczak, University of North Carolina at Chapel Hill, USA;  
Johna Register-Mihalik, University of North Carolina at Chapel Hill, USA;  
Emily Kroshus, University of Washington, USA*

Athlete engagement is a cognitive-affective experience characterized by feelings of confidence, dedication, vigor, and enthusiasm (Lonsdale, Hodge, & Raedeke, 2007) that represents an athlete psychological outcome germane to the potentially stress-inducing environment of sport. Consistent with a positive psychology vantage (Seligman & Csikszentmihalyi, 2000), further understanding of longitudinal predictors of athlete engagement, including psychological stress and coping perceptions, will aid practitioners in their mission to promote positive psychological experiences for competitive athletes. The study purpose was to examine performance coping markers (i.e., overcoming competitive adversity, peaking under pressure) as potential moderators of the relationship between athlete psychological stress and engagement perceptions across a sport season. It was hypothesized that coping markers over a season would buffer the temporal perceived athlete stress–engagement relationship. Participants included American collegiate club sport athletes (n = 61; Mage = 19.4 years, 31 males, 30 females) who completed valid and reliable psychometric assessments of study variables at baseline, two-, four-, and six-week follow-ups. Within the hypothesized multilevel model, no coping markers–stress moderation was supported, but stress (fixed effect = -0.52,  $p < .01$ ) was identified as a significant, negative predictor of athlete engagement perceptions. Follow-up modeling further revealed peaking under pressure (fixed effect = 0.13,  $p < .01$ ) but not overcoming adversity (fixed effect = 0.06,  $p > .05$ ) as a significant coping marker predictor of engagement when interaction terms were excluded. Guided by the scientist-

practitioner perspective, study results suggest the importance of minimizing athlete stress perceptions and including coping skills training. These key intervention strategies emphasize optimal athlete responses to competitive pressure and further promote athlete engagement. Moreover, results suggest the potential of stress management strategies as the most proximal means to enhance athlete engagement perceptions. The design and evaluation of such interventions in the athlete population represents an important future applied research direction.

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### LEC-04: Professional Issues & Ethics

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#### LEC-04A

##### IGNORING THE ELEPHANT IN THE ROOM: THE “ME TOO” MOVEMENT OF SEXUAL ABUSE IN SPORT

*Jessica Woods, SAIC/ARMY, USA*

No matter the sport, country, or gender, no one seems to be immune from the tragic stories of an athlete saying “me too” to sexual abuse. For decades, sexual violence has been one of the most sensitive and silenced issues in sport (Ohlert, Rau, Rulofs & Allroggen, 2016). Previous qualitative studies have primarily focused on documenting athlete’s responses to the risk factors and coping mechanisms of sexual abuse (Fasting & Sand, 2015). However, there is a lack of studies that use personal testimonies to find trends within in age, culture, and sport. For the first time in years, victims of a variety of sexual assaults, harassment and abuse by coaches, practitioners, and officials are sharing their experiences (Fasting & Sand, 2015). The personal stories are told at great sacrifice, with the burden of exposure to others and facing their perpetrator; all of which can be extremely difficult to live with. The traumatic events of sexual violence have long-term consequences that affect various areas of an athlete’s health and well-being across their life span (Ogle, Rubin, & Siegler, 2013). This lecture draws on my own experience as a victim of sexual abuse as a competitive gymnast and collegiate soccer player. In addition, the lecture will highlight current cases and discuss best practices in how sexual abuse can be prevented. The lecture will conclude with the importance of developing policies and educational materials for parents, athletes, coaches, as well as governing bodies to create a safe sport environment and allow athlete’s to have a voice.

#### LEC-04B

##### “I NEVER WANTED TO ASK, BUT CONGRATS ON THE BUMP:” APPLIED SPORT PSYCHOLOGY PRACTICE WHILST PREGNANT

*Lee-Ann Sharp, University of Ulster, UK*

Sport research has highlighted pregnancy and motherhood as reasons why female athletes end their sport careers or fail to reach their full potential in sport (Nash, 2011). Is this the case for those female sport psychology consultants (SPCs) who provide these athletes with psychological support? The choices made by working mothers make them vulnerable to the negative effects of gender stereotypes (Morgenroth & Heilman, 2017). The expectation for women, is that family comes first (Cotter, Hermsen, & Vanneman, 2011). Having a career while being a mother is a potential violation of this norm, and can give rise to perceptions of misdirected

priorities and an impaired ability as a parent and partner (Okimoto & Heilman, 2012). The purpose of the current investigation was to explore one SPC's experiences of working in academia and applied sport psychology practice while pregnant. The investigation was conducted using an autoethnographic approach. The author is an applied SPC working in an academic institution in the United Kingdom. A Chartered Psychologist with the British Psychological Society, with 11 years' experience working in applied sport psychology. At the time of the author's pregnancy in addition to her academic role, her applied practice involved providing support to elite amateur and professional golfers through the sport's National Governing Body. Data was collected throughout the course of the authors 39 week pregnancy. Data consisted of reflective diary entries, emails, and experiential notes. The gathered data was interpreted using appropriate psychological theory. Analysis revealed the author faced a number of challenges in her academic and applied work, these included; (1) breaking the pregnancy news; (2) dealing with pregnancy and being fit to practice; (3) fear of missing out; and (4) taking time off. Several practical considerations will be discussed for those SPCs considering working in applied sport psychology whilst pregnant.

## LEC-04C

### THE PURSUIT OF CLEAN SPORT

*Lennie Waite, Waite Performance Strategies LLC, USA;  
Kelsey Erickson, Leeds Beckett University, UK*

Ongoing revelations of systemic doping in Russia have reinforced the need to progress from viewing doping as an individual athlete problem to recognizing the significance of the environment surrounding athletes. In particular, attention is being directed towards considering the role of athlete support personnel (ASP) for shaping athletes' attitudes and behaviors regarding performance enhancing drugs (PEDs; Patterson, Backhouse, & Duffy, 2015). The World Anti-Doping Code (WADC; 2015) reinforces this paradigm shift, with six of the ten Anti-Doping Rule Violations (ADRVs) targeting the responsibilities of ASP. In light of this, it is increasingly important for ASP (e.g., sport psychology professionals) to be (a) knowledgeable of anti-doping related issues and (b) to play an active role in promoting doping-free sport. Without such awareness, there is a risk of both sport psychologists and their clients falling foul of anti-doping rules (Mazanov et al., 2015).

In response to the increased accountability for ASP in the anti-doping context, alongside the persistent presence of doping in sport, this presentation aims to start a conversation within the sport psychology community regarding why (and how) sport psychology professionals can (and must) actively engage in the pursuit of doping-free sport. To achieve this, we offer the perspectives of two key athlete groups: (1) the athlete who competes doping-free, and (2) the athlete who has been sanctioned for doping. First, we present insights from elite track and field athletes and highlight the direct and indirect effect of others' doping behaviors on these athletes. Next, we offer the personal account of a sanctioned athlete. Drawing on both perspectives, we highlight opportunities for sport psychologists to intervene and pro-actively engage in the pursuit of doping-free sport. At the same time, we underline potential ethical issues stemming from the need to support clients (helping profession) versus the expectation to report doping (anti-doping expectation).

## LEC-04D

### "THE MAKING OF THE SECRETS": UNDERSTANDING PATTERNS OF DISCLOSURE AND NON-DISLOSURE OF ABUSE AND HARASSMENT AMONG ATHLETES

*Jenny Conviser, Ascend Consultation in Health Care, USA*

The nature of patterns of disclosure and nondisclosure of harassment and abuse have been extensively studied (Paine & Hansen, 2002). However, there may currently be little awareness in this regard, among professionals working with athletes. For example, the questions, "How could it go on for so long?" and "Why did we not know of the abuse or harassment sooner?", have been documented frequently in recent news (CNN Wire, 1.16.18, Why Women; Moghe & de Valle, CNN, 1/17/18). Numerous factors influence delay or withholding of disclosure including; social conditions, academic status, age, sex, relationship with the perpetrator, familial conditions, race, poverty, and sport specific factors, etc. (Goodman-Brown et al., 2003). It is estimated that 30 to 80 percent of victims purposefully do not disclose (Smith et al., 2000) and if reporting occurs, it may range from 3 to 18 years following the incident (Oxman-Martinez, Rowe, Straka, & Thibault, 1997). Factors relevant to athletes, their sport and training culture which influence disclosure and non-disclosure will be summarized. Implications for prevention and awareness programming will be presented. It is hoped that improved awareness will foster better understanding of the athletes decisions concerning disclosure, permit greater empathy and compassion in reporting, improve conditions conducive to safe disclosure and expedite the athlete's access to support and treatment. It is hoped that well informed professionals working with athletes may 1) preserve safety in the sport experience and when appropriate 2) expedite access to professional care.

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## LEC-05: Coaching

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## LEC-05A

### "IT WAS NOT A MATTER OF ACCEPTANCE": A QUALITATIVE EXPLORATION OF UNCONDITIONAL POSITIVE REGARD AND ITS OPPOSITE CONSTRUCTS IN COACH-ATHLETE RELATIONSHIPS

*Lauren McHenry, University of Tennessee, USA;  
Jeff Cochran, University of Tennessee, USA;  
Rebecca Zakrajsek, University of Tennessee, USA;  
Leslee Fisher, University of Tennessee, USA*

Person-centered theory (Rogers, 1959) offers a framework for helping relationships (e.g. parent-child, teacher-student, counselor-client). From this theoretical lens, unconditional positive regard (UPR) is considered a key construct for nurturing growth processes and adaptive psychological development, while its opposite constructs – conditional regard, unconditional negative regard, and disregard – are suggested to undermine adaptive development. Researchers have demonstrated that the coach-athlete relationship may serve as a helping relationship (e.g. Jowett, 2007; Mageau & Vallerand, 2003), or that it could function as a controlling relationship (e.g. Bartholomew, Ntoumani, & Thogerson-Ntoumani, 2010). Scholars have also emphasized the need to draw from relational theories from other disciplines to deepen our understanding of the coach-athlete relationship (Pocswardowski, Barrot, & Jowett, 2006). Thus, the current study aimed to extend the theoretical constructs of

UPR and its opposites to the coach-athlete relationship context by interviewing 11 retired elite-level figure skaters about their past relationships with coaches. Using Qualitative Content Analysis (Schreier, 2012) procedures, five dimensions were constructed: (1) descriptions of perceived components of UPR from a former coach, (2) descriptions of perceived opposites of UPR from a former coach, (3) perceived influence of coach regard (4) interaction of influence between coach regard and contextual conditions, and (5) coach regard and use of power. Participants who described perceptions of UPR from former coaches reported that their coaches' regard contributed to their confidence, passion for the sport, and persistence through challenges. Those who described perceptions of the opposites of UPR from former coaches reported that their coaches' regard contributed to lowered confidence, decreased enjoyment in sport over time, and burnout. The focus of this presentation will be on ways sport psychology consultants and coach educators can assist coaches in providing UPR to athletes, and ways to help coaches recognize and minimize times at which they demonstrate the opposites of UPR.

## LEC-05B

### A SYSTEMATIC REVIEW OF THE PSYCHOSOCIAL ASPECTS OF OLYMPIC COACHING

*Gillian Cook, Loughborough University, UK;  
David Fletcher, Loughborough University, UK;  
Christopher Carroll, University of Sheffield, UK*

Coaches operating at the highest levels of competitive sport are key individuals in Olympic athletes medal-winning potential and performance outcomes. Research has attempted to understand coach effectiveness and athlete influencing skills as a function of their interpersonal and intrapersonal processes, individual personalities, skill-sets, and psychosocial differences (e.g. Arripe-Longueville, Fournier, & Dubois, 1998; Gould, Greenleaf, Chung, & Guinan, 2002; Mallett & Coulter, 2016). The purpose of this paper is to systematically review and synthesize the research on psychosocial aspects of Olympic coaching to better understand the facets of an Olympic coach that are relevant to performance success. This systematic mixed studies review was informed by PRIMSA guidelines. The review was conducted by searching SPORTDiscus, PsycINFO, PsycARTICLES, ScienceDirect, Scopus, Web of Knowledge, and Medline databases for articles concerning psychosocial aspects of Olympic coaching. Two reviewers independently and in duplicate identified 2866 studies, screened, assessed eligibility and then assessed the quality of evidence using the Mixed Methods Appraisal Tool. Results from the 20 included studies, which encompassed 195 Olympic coaches and 922 Olympic athletes, were transformed into a qualitative format to present relevant themes, concepts and patterns. The benefit of synthesizing data from the 20 studies has been the identification of emergent findings that were not apparent in the individual studies, with the convergent thematic analysis identifying three core themes of traits, states and behaviors. Examples identified within the traits theme included aspects of coping styles, conscientiousness, and neuroticism, within states, it included components of self-efficacy, other-efficacy, and motivation, and within behaviors it included features of coping behaviors, autonomy supporting behaviors, and body language. All of the significant new findings will be discussed fully, along with their practical implications for innovative future coach education and training programs to enhance Olympic coach functioning in key performance influencing domains.

## LEC-05C

### FOSTERING AN AUTONOMY-SUPPORTIVE COACHING STYLE: THE DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF A THEORY-BASED WORKSHOP FOR ELITE YOUTH SOCCER COACHES

*Johannes Raabe, Penn State Altoona, USA  
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The German Soccer Association (i.e., Deutscher Fußball-Bund; DFB) has one of the largest sport-specific talent identification and development (TID) programs in the world (Schott, 2011). Every year, over 14,000 youth players in the age groups U12 to U15 get promoted in 366 regional competence centers (Höner, Votteler, Schmid, Schultz, & Roth, 2015). There are a variety of factors (i.e., physical, physiological, psychological, and sociological characteristics; Williams & Reilly, 2000) that deserve consideration when attempting to provide highly talented athletes with the necessary conditions to maximize their skill development. Coaches have been shown to play an especially important role in athletes' physical and psychological development (Poczwadowski, Barott, & Henschen, 2002). In particular, researchers have demonstrated that the more athletes perceive their coaches to be autonomy-supportive – as opposed to controlling – the more likely they are to experience positive cognitive, affective, and behavioral outcomes (e.g., higher well-being, lower dropout rates; Balaguer et al., 2012; Calvo, Cervello, Jiménez, Iglesias, & Murcia, 2010). Accordingly, the DFB funded the development of a program to educate about 1,300 competence center coaches within the German TID system about the benefits of an autonomy-supportive coaching style and relevant practical applications to their current coaching context. The proposed presentation will provide attendees with an overview of the development, implementation, and initial evaluation of these workshops. In this process, the presenters will outline the findings of their recently conducted research that provided the foundation for the program's conceptualization. These studies include a systematic review of previous autonomy support interventions, a qualitative investigation of the behaviors used by current DFB TID coaches, and a quantitative exploration of elite coaches' beliefs towards autonomy support. As a result, sport psychology practitioners and coach educators will receive evidence-based knowledge that can be applied within their own efforts to help coaches become more autonomy-supportive.

## LEC-05D

### EXPLORING HIGH PERFORMANCE COACH EXPERIENCES OF SPORT PSYCHOLOGY CONSULTING FOR THEIR OWN PERFORMANCE

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While many would argue that athletes are the 'performers' in sport, there is an increasing recognition of the coach as a 'performer' in their own right as well (Thewell, Weston, Greenlees, & Hutchings, 2008). Much like their athletes, coaches face organizational, competitive, and personal stressors in the sporting environment (Olusoga, Maynard, Butt, & Hays, 2010), particularly in the high performance context.



High performance is a context where the expectations for success are greater but challenges to success are continually increasing due to factors such as a lack of adequate resources, increased international competition, and the importance placed on success relative to the country's investment in high performance sport (Mallett & Lara-Bercial, 2016). Therefore, this study examined the experiences of eight high performance coaches from a range of sports and a number of different countries who have utilized sport psychology consultants for their own performance enhancement needs as a coach. An international and varied sport perspective was taken to enhance understanding of cultural differences between countries and sport systems. This study was conducted using a hermeneutic phenomenological methodology and each participant engaged in a semi-structured interview lasting approximately 60 minutes. Qualitative coding of the data was completed through thematic analysis. Preliminary results elicited a number of themes related to reasons for engaging in personal sport psychology consulting (established trust, access through the team), ways that the sport psychology consultant provided support (facilitating coping and performance skills, enhancing communication, being a sounding board), and barriers to use of a sport psychology consultant (lack of resources, stigma, expectation of athlete performance focus). Results of this study both support and expand on previous research related to coaches' perceptions of personal use of sport psychology. Practical implications will be discussed which emphasize ways that sport psychology consultants may effectively support coach performance needs.

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#### LEC-06: Youth Sport

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### LEC-06A

#### LIFE SKILLS TRANSFER IN SPORT AND PHYSICAL ACTIVITY RESEARCH: A SYSTEMATIC REVIEW

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The purpose of this study was to conduct a systematic review to identify the empirical evidence regarding the transfer of life skills in sport and physical activity research. Our work was guided by the standard methods applicable to Cochrane systematic reviews (Higgins, 2011). The search strategy used involved a combination of subject headings, keywords, related synonyms and Boolean operators. We focused on three main concepts: life skills AND transfer AND sport and physical activity. This search strategy was performed in electronic databases such as SPORTDiscus, PsycINFO, Academic search premier,

Dissertations and theses-full text and Web of Science. Reviewers independently performed an initial screening of all titles and published abstracts for inclusion criteria to determine full text required. The search strategy identified 96 relevant studies and researchers applied the following inclusion criteria: (a) original data, (b) peer-reviewed literature including dissertations, (c) sport or physical activity, and (d) life skills used in other life settings. Reviewers independently assessed the quality of the 55 final references using an adapted version of the Critical Appraisal Skills Programme (2017) and the checklist for the assessment of the methodological quality of both randomized and non-randomized studies of health care interventions (Downs & Black, 1998). Finally, the data was extracted for analysis. Based on the interpretation of the data, the types of life skills described in the literature as being applied in other life settings will be outlined. Also, the life settings in which life skills are applied and the factors facilitating or hindering the transfer of life skills will be described. Practical recommendations will be made in order to help key stakeholders to foster the transfer of life skills to other life settings for helping athletes manage their lives in a healthy and productive way.

### LEC-06B

#### CHALLENGES AND STRATEGIES FOR WORKING WITH GENERATION Z ATHLETES

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*Michael Mignano, Michigan State University, USA;*  
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Generation Z (Gen Z) athletes are those born after 1995 and are the first generation to have grown up in a totally digital world (Twenge, 2017). Gen Z individuals are known as the best educated generation and have excellent technology skills. However, they are thought to have short attention spans, a need for structure and boundaries, struggle with adversity and lack interpersonal skills (Seemiller & Grace, 2016). Little, if any, sport psychology research has been conducted relative to the psychology of working with this generation of athletes. The purpose of this qualitative study was to determine experienced national coach's and sport science providers perceptions of the challenges of working with Generation Z athletes and strategies they have found effective for this generation. In depth interviews were conducted with 12 participants. Hierarchical content analyses revealed that coaches faced a number of challenges when working with Gen Z players. These included weak communication skills, overinvolved parents, short attention spans, a lack of independence, difficulty handling emotions, entitlement and pre-occupation with smart phones and social media. Strengths of Generation Z athletes included being motivated, an ability to use technology to improve skills, overall focus and engagement, visual learning ability, interest in knowing why, being competitive, being open to learning and having optimism. Effective strategies for working with Generation Z youth included setting clear expectations, teaching time management skills, individualizing training, teaching interpersonal skills, developing trusting relationships, and focusing on the strengths of Generation Z athletes. This research is discussed relative to broader research on characteristics of Generation Z athletes (e.g., Twenge, 2017; Seemiller & Grace, 2016). Strengths and limitations of the current investigation and future research directions are also identified. Finally, Implications for coaches, sport psychology consultants and other sport science providers for effectively work with Generation Z athletes are discussed.

## LEC-06C

### USE AND REINFORCEMENT OF STRATEGIES WITHIN A YOUTH PSYCHOLOGICAL SKILLS TRAINING PROGRAM

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In 1988, Vealey argued that young athletes “are more ripe for PST intervention than older athletes who have already internalized dysfunctional responses to competition” (p.323). Since then, several researchers have demonstrated the effectiveness of psychological skills training (PST) programs with child and adolescent athletes (e.g., Fournier, Calmels, Durand-Bush, & Salmela, 2005). However, little is known about when (i.e., what age and developmental stage) young athletes can effectively learn and apply specific psychological strategies in sport (Lauer, Zakrajsek, & Lauer, 2017). Twenty tennis athletes (12 girls, eight boys) between nine to 16 years of age participated in focus group interviews regarding their understanding and use of specific strategies (i.e., journaling, breathing, routines) taught within a Player Development program in the Northeastern United States. Additionally, six staff members (four coaches, one program manager, one mental trainer) participated in individual interviews on how they reinforced these strategies. Thematic content analysis (Braun & Clark, 2006) resulted in five themes. Athletes described journaling as a self-reflection tool and a resource for goal-setting, and they reviewed their journals during play to maintain focus. In their routines, athletes used both physical (e.g., using a towel) and psychological (e.g., positive self-talk) strategies to “calm down” and regain focus. Athletes reported using breathing strategies (e.g., diaphragmatic) during routines and as a standalone strategy to “slow the heart rate” and manage stress. While not explicitly taught in the PST program, athletes reported transferring the psychological strategies they learned to situations outside of tennis (e.g., school). Both staff and athletes acknowledged that reminders were key to effective psychological strategy use. Athletes’ descriptions of learning and using psychological strategies across ages and developmental stages will be highlighted. In addition, sport psychology consultants may utilize these findings to assist youth sport coaches in reinforcing PST concepts for young athletes.

## LEC-06D

### GAINING ENTRY AND CREATING A LASTING POSITIVE YOUTH SPORT EXPERIENCE IN AN ELITE ADOLESCENT GYMNASTICS CLUB: FIRST EXPERIENCES OF A CONSULTANT WORKING ALONGSIDE AN ESTABLISHED PROFESSIONAL

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Performing at an elite level in the sport of women’s gymnastics places extreme mental and physical demands on the athlete (Krane, Greenleaf, & Snow, 1997). An overemphasis on winning by the athlete, parent, and coach often results in an ego- involved goal orientation and “win at all cost” mentality often causing social comparisons, an over emphasis on external feedback and rewards, the need for superiority and perfection, and diminished self- worth (Krane et. al., 1997). Behaviorally, interactions with teammates can be negatively affected, excessive practice behaviors may arise, and athletes may feel the need to practice/compete through serious injuries

and engage in unhealthy eating habits to produce “podiums” (Krane et al., 1997).

The objective of this presentation is to show how this practitioner gained entry into a youth gymnastics club and developed a performance program to build a more task-oriented/ mastery climate (Krane et al., 1997; Dweck, 2006). Bi-weekly psychological skills training was introduced to give gymnast the tools to help cope with the extreme mental and physical demands of the sport and foster closer relationships (Bull, Albinson, Shambrook, 1996; Duckworth, 2016). Results produced enhanced positive culture among team members and tangible increases of gymnastic meet performance. Triumphs and challenges to this process will be discussed.

#### *Resources:*

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## LEC-07: Exercise/Health/Fitness

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## LEC-07A

### THE RELATIONSHIP OF EXERCISERS' GOAL ORIENTATIONS, REASONS FOR USING PHYSICAL ACTIVITY TRACKERS, EFFORT, AND ENJOYMENT

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Many university employees spend significant time sitting at their desks during the workday, placing them at a high risk for chronic diseases that contribute to health care expenditures (Fountaine, Piacentini, & Liguori, 2014). Companies have developed wearable physical activity tracking technology (PATT) to help individuals heighten their awareness of, monitor, and increase their daily activity levels. Employing Achievement Goal Perspective Theory (AGPT), the purpose of this study was to examine whether university employees’ goal orientations predicted their reasons for using PATT as well as exercise effort and enjoyment. University employees (203 females, 57 males; Mage = 42.35 years) across the U.S. completed an anonymous online or paper survey that included the Goal Orientations in Exercise Measure (Petherick & Markland, 2008), Reasons for Using a Physical Activity Tracker Survey (Easton & Fry, 2017), and Enjoyment and Effort Subscales of the Intrinsic Motivation Inventory (McAuley et al., 1989). Four stepwise linear regression analyses were calculated to assess the extent that goal orientations (task and ego) predicted task-related reasons for using PATT; ego-related reasons for using PATT; exercise effort; and enjoyment. Task orientation significantly and positively predicted task-related reasons for using PATT,

while ego orientation significantly and positively predicted ego-related reasons for using PATT. Further, both task and ego orientation scores significantly and positively predicted effort and enjoyment scores. Results indicate PATT manufacturers may benefit from creating software that promotes exercisers' task-involvement, as task orientation is linked to more positive physical activity outcomes.

## LEC-07B

### A COMPARISON OF EXERCISE MODALITY ENJOYMENT WITHIN A COMMUNITY SAMPLE OF ADULTS PARTICIPATING IN A WEIGHT MANAGEMENT PROGRAM

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Many of the studies emerging from exercise physiology and sport science focus on experiences and perceptions of exercise intensity. These publications narrowly focus on the experiences of healthy participants in a lab setting (Jung, Bourne, & Little, 2014; Williams et al., 2012), while exercise psychology researchers debate the theoretical foundations of affective experience (Ekkekakis, 2009). Researchers know less about the experiences of obese adults, especially in community settings. Little is understood about which modes of exercise are enjoyed by active, obese adults, and how enjoyment may be moderated by class of obesity. The purpose of this project is to compare the levels of exercise enjoyment for five different modalities of exercise (walking outdoors, using cardio equipment, weight training, water-based activity, and group fitness classes) in a large sample of active adults with obesity. The sample was drawn from a community-based weight management program across a three year period, with 1,240 participants completing a program evaluation survey at 6-months. Exercise modality enjoyment was assessed via a scaled item from (1) "not at all" to (4) "very much" for each activity. A two-way mixed ANOVA was used to test the interaction of obesity class and exercise modality. This analysis produced a significant main effect for modality and a significant interaction ( $\eta^2 = .02$ ). Exercise enjoyment levels were moderately high among all participants, with walking outdoors the most preferred activity. Enjoyment of water based activities showed a linear increase across obesity classes, with class 3 obese participants ( $BMI > 40$ ) reporting the highest enjoyment of any group. Finally, group fitness classes were the least enjoyed by participants with class 3 obesity. These results provide valuable insights for practitioners that work with overweight and obese populations.

## LEC-07C

### MINDFULLYSTRONG: A MIXED-METHODS EVALUATION OF A 12-WEEK INTEGRATED MINDFULNESS AND STRENGTH TRAINING PROGRAM

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Mindfulness, the deliberate, voluntary, non-judgemental focus of attention on one's present moment experience, is considered an important predisposition for wellness enhancement (Brown

& Ryan, 2003). Mindfulness interventions can improve a range of clinical and non-clinical outcomes including stress (Chiesa & Serretti, 2009) and quality of life (Khoury, Sharma, Rush, & Fournier, 2015). The relationship between exercise and mental wellbeing has also been extensively documented; physical activity has been associated with several improved health outcomes, including quality of life and better mood states (Penedo & Dahn, 2005), improved sense of self-accomplishment, and reduced levels of emotional exhaustion (Lindegard et al., 2015). The present study involved the implementation and evaluation of MindfullySTRONG, a 12-week integrated mindfulness, mindful movement, and physical activity/strength training program. Thirteen adult participants (10 women, 3 men; MAge = 51.6 yrs) with no underlying health conditions voluntarily took part in the study. To evaluate the MindfullySTRONG program, wellness assessments took place in weeks 1 and 12, consisting of psychological (flourishing, perceived stress, mindfulness/awareness, quality of life) and physical (blood pressure, resting heart rate, body mass, body composition) measures. Participants also kept intervention journals, and were interviewed about their experiences post-intervention. Results indicated that participants were significantly more mindful after the completion of the MindfullySTRONG program and scored significantly higher on overall health, physical, psychological, and social relationship Quality of Life domains. Furthermore, significant reductions were observed in body mass, and waist measurements. Thematic analysis (Braun and Clarke, 2006) of the journals and interviews revealed a range of positive experiences (e.g., feeling supported, life applications, enjoying integration) and challenges (e.g., physical struggles, practice time) associated with the program. These findings provide preliminary evidence for the positive impacts of the deliberate integration of mindfulness and physical activity/strength training on physical and psychological wellbeing.

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## LEC-08: Female Athletes

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## LEC-08A

### EXPLORING COACHES' VIEWS OF BODY IDEAL EXPECTATIONS FOR FEMALE ATHLETES IN AESTHETIC SPORTS

*Katherine Fairhurst, West Virginia University, USA;  
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Optimal performance in aesthetic sports is attained through the execution of advanced technical elements coupled with a judged artistic component that emphasizes appearance and leanness. Pressures to change body weight, shape, size, and appearance are linked to body image concerns and eating disorder symptomatology in female aesthetic sport athletes (e.g., Krentz & Warschburger, 2011). Coaches are among the most frequently cited sources of these body-related pressures (e.g., Kong & Harris, 2015). The purpose of this study was to explore coaches' views on body ideal expectations for female aesthetic sport athletes, including definitions of the body ideal, factors perceived to influence the development and perpetuation of those ideals, and beliefs on how body ideals are achieved. A purposive sample of 10 coaches of competitive female athletes in aesthetic sports (6 female, 4 male; Mage=35.6; mean 16 years of coaching experience) completed 60-90 minute semi-structured interviews. Consistent with a social constructivist paradigm (Creswell, 2014), data were analyzed using inductive thematic analysis; a flexible approach to capturing meaningful

patterns through thematic mapping (Braun & Clarke, 2013). Coaches described the body ideal as an intricate balance between physical appearance (e.g., “well-kept kind of girl”) and athletic function (e.g., “generate enough power”). This prototype was reported to be shaped by coaches, judges’ feedback, media, and sport cultural norms. Coaches cited that current body ideals are conflicting, unhealthy, and difficult to attain, and perceived that meeting the ideal was a reflection of athletes’ sport commitment and willingness to control their weight. Although a few coaches endorsed more flexible body ideals, exercising these progressive beliefs was perceived as challenging in the current culture of their sport. These findings advance understanding of reported body-related pressures from coaches and aid practitioners in supporting coaches and female athletes in navigating the body ideal standards reinforced in aesthetic sports.

## LEC-08B

### “MY BODY LOVES ME, SO I SHOULD LOVE IT BACK” – FEMALE COLLEGIATE ATHLETES’ QUALITATIVE EVALUATION OF THE BODIES IN MOTION PROGRAM

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Female collegiate athletes are considered at-risk for eating disorders because of both general and sport-specific pressures about body weight, shape, size, and appearance. Research suggests that over 50% desire to lose an average of five pounds (Tackett et al., 2016) and upwards of 25% experience eating disorder symptoms (Greenleaf et al., 2009). To address these concerns, Bodies in Motion (Blinded, 2017) was developed as a face-to-face and social media-based intervention led by trained female professionals (e.g., sport psychologists, nutritionists) that integrates cognitive dissonance theory (Festinger, 1957) and mindful self-compassion constructs (Germer, 2010; Neff, 2003) to promote positive body image and improve psychological well-being for female collegiate athletes. The purpose of this study was to examine female collegiate athletes’ (n = 106) self-reported experiences in the Bodies in Motion program from across nine NCAA institutions one week following program completion and 3-4 months later. Their qualitative responses were content analyzed using procedures similar to Côté and colleagues (1993) in which responses were deductively organized by question, coded into meaning units, and inductively arranged thematically. Results indicated participants most frequently commented on connecting with other female athletes across sports through rich discussion, relationship-building, and realizing they were not alone in their struggles. Participants also reported learning to accept and love their bodies, appreciating their body’s function over appearance, the ability to counter negativity and prevent body comparison, and being more present, mindful, self-compassionate, and critical of media. Similar responses were reported at follow-up. These data will be juxtaposed with quantitative program evaluation data (Blinded, 2017) used to support the efficacy of the program. In addition, data will be used to discuss needed changes to the program, and suggestions for program implementation and sustainability will be discussed.

## LEC-08C

### SHE HITS HARD: EXPLORING THE IMPACT OF A FEMALE BOXING PROGRAM ON BODY EMPOWERMENT

*Jenn Jacobs, Northern Illinois University, USA;  
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While sport-based youth development programs (SBYD) have been widely studied for their design, implementation, and evaluation, many of these studies have been situated in the coeducational setting, examining how mainstream sports can foster life skill development (Allen, Rhind, & Koshy, 2015; Camiré, Trudel, & Bernard, 2013). The current investigation stemmed from an after-school boxing program for adolescent females. Through the framework the Teaching Personal and Social Responsibility (TPSR) Model (Hellison, 2011), this program sought to build female empowerment through a focus on body image, confidence, and self-esteem. Sixth and 7th grade participants were referred to the program based on school counselor recommendation and program enrollment was limited to 10 members to maximize opportunities for relationship-building. The program met biweekly for 4 months and activities revolved around noncontact boxing skill and instruction, building a sense of competence and power, and establishing a safe place to discuss body image and practice body empowerment strategies. This study employed a mix methods approach where participants completed pre- and post-measures of the Body Esteem Scale (Frost, Franzoi, Oswald, & Shields, 2017) and participated in semi-structured interviews, three times throughout the program, focused on body image and program feedback. Systematic observations, coach journals, and daily implementation checklists were also employed to demonstrate fidelity to the TPSR model. Results indicated that while participants initially demonstrated negative attitudes towards their body size and global self-esteem, throughout the program, these attitudes shifted to being more positive and focused on viewing their bodies from a position of strength and power. One notable theme described how boxing specifically taught participants to experience inner power through punches. This study is the first of its kind to examine an SBYD model within a combat sport program solely for females with the goal of body empowerment. Numerous practical and empirical implications are discussed.

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## LEC-09: Elite/Pro Sport

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## LEC-09A

### “IF-THEN” PLANS: A SIMPLE TOOL FOR IMPROVING ANTICIPATION PERFORMANCE IN TEAM HANDBALL GOALKEEPING?

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Methods, Germany;*

*Alexander Schurr, University of Tübingen, Germany; Florian  
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Anticipation skills are crucial in many sports and researchers have found advantages in expert compared to intermediate athletes (Williams et al., 2011). However, little is known about self-regulation strategies such as implementation intentions (Gollwitzer & Oettingen, 2011) and their effect on anticipation in sports. It is postulated that simple “if-then” plans increase the perceptual readiness for a defined stimulus “X” and facilitate

the initiation of an intended action “Y” (Wieber et al., 2015). This study investigated whether such implementation intentions support handball goalkeepers’ anticipation and whether this effect is moderated by goalkeepers’ performance level.

The anticipation skills of 25 professional and 25 amateur male goalkeepers ( $M = 26.6 \pm 6.6$  years old) were assessed in a pre- and post-test using video-based diagnostics. Handball situations ending with a shot from one of the attackers were presented on a videoscreen. The goalkeepers had to anticipate the shot’s direction by pressing one of four buttons (representing each goal corner). Response time and accuracy were used to calculate anticipation performance. Some videos showed a (for the implementation intention) relevant behavior “X” from the defensive center back player, indicating that the goalkeeper should react with a typical behavior “Y”. Between pre- and post-test, the participants were randomly assigned to an intervention (IG) and control group (CG). The IG was asked to form implementation intentions (“If the back center behaves like X, then I will behave like Y”), whereas the CG conducted the post-test without any additional preparation.

ANOVAs demonstrated that the IG benefitted from the implementation intentions (interaction “group x measurement point”:  $F(1,48)=19.99$ ,  $p<.001$ ,  $\eta^2=0.29$ ). There was no significant difference regarding this benefit between professional and amateur goalkeepers within the IG ( $F(1,24)=0.43$ ,  $p=.52$ ). Overall, the results suggest that implementation intentions provide an effective tool for supporting anticipation skills at different performance levels in elite sport.

## LEC-09B

### SPORT PSYCHOLOGY CONSULTANTS’ ROLE IN HELPING PROFESSIONAL ATHLETES COPE WITH EXPERIENCES OF PUBLIC SHAMING ON SOCIAL MEDIA

*Ellen MacPherson, University of Toronto, Canada;*  
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Professional athletes’ lives, within and outside of sport, are highly scrutinized by media and fans, especially in the era of social network sites (Coombs & Holladay, 2012). This is particularly the case when athletes behave in ways that violate expected legal, social, or sport-specific norms, such as driving under the influence, sexual misconduct, domestic violence, or performance-enhancing drug use (Smith et al., 2014; Wilson, Stavros & Westberg, 2008). In response to norm violations, research outside of the sport context has revealed that social media is often used to engage in public shaming practices, which refers to expressions of contempt or disapproval towards the individual who has violated the norm (Braithwaite, 1989; Cheung, 2014). This study sought to explore the nature and extent of public shaming of professional athletes through social media in response to athletes’ norm violations. A qualitative content analysis of 7, 700 comments on Facebook, Twitter and Instagram directed at eleven male and female professional athletes by sport fans in response to the athletes’ legal, social, or sport-specific norm violations was conducted. Findings demonstrated fans publicly shamed athletes for their norm violations through explicit comments conveying: withdrawal of emotional support, including empathy, acceptance, or encouragement, as well as, withdrawal of tangible support, such as financial commitment or attendance at sporting events involving the athlete; personal insults directed at the athlete; and expected repercussions for the athlete’s psychological, social,

or physical self. The findings are interpreted with attention to the sport psychology consultant’s role in educating athletes about these practices and helping them develop strategies to cope with personal experiences of public shaming on social media as a recipient.

## LEC-09C

### AN EXPLORATION INTO THE COGNITIVE COMPONENT OF ELITE HIGH JUMPERS’ PRE-PERFORMANCE ROUTINES

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*Ali S. Kanan, Ball State University, USA;*  
*Lindsey Blom, Ball State University, USA*

The benefits associated with using pre-performance routines (PPRs) are well documented within performance literature, and it is extensively recognized that PPRs supplement automatic skill execution, a key characteristic of expert performance (Arsal, Eccles & Ericsson, 2016). Despite knowledge on the PPR characteristics and benefits, research exploring the cognitive component of these routines remains inadequate (Cotterill, 2011). The purpose of this descriptive case study was to explore the cognitive content and consistency of two elite high jumpers (national/international competitors;  $N=2$ ) PPRs as well as the understanding of how these routines are developed and their importance from the perception of both the athlete and the coach. This presentation will focus on the athletes’ coach’s perspective of the cognitive content and consistency of their athletes’ PPR, as well as their perspective on the development and importance of PPRs. Following IRB approval, interviews underwent inductive thematic analysis (Kibblewhite, Treharne, Stebbings & Hegarty, 2017) by the primary and secondary researcher. Independent analysis was performed by both researchers before analyses were comparatively discussed to identify superordinate and subordinate themes. Both coaches advocated for the importance of pre-performance routines in the sport of high jump and attributed their effectiveness to many areas of performance, including variable task difficulty and the mind-body relationship. Relative to the cognitive content, results indicate that coaches identified a combination of mental skills (mental imagery, re-focusing & association) being used by their athletes. Coach information on their involvement and perception highlighted their role in routine maintenance rather than development and emphasized the importance of using a collaboration of available resources (i.e. sport psychologists & bio-mechanists) to facilitate maintenance and possible adjustment. These results highlight possible inconsistencies in the implementation of cognitive content within elite high jumpers’ PPRs and underline the importance and influence of various resources on the maintenance and adjustment of PPRs.

## LEC-09D

### SUPPORTING LEADERSHIP STRATEGIES DURING BRIEFING: EVIDENCE FROM ELITE TEAM SPORTS

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*Marie Le Menn, Paris-Descartes University, INSEP, France;*  
*Neville Stanton, University of Southampton, UK*

Briefing is an instructional process occurring immediately before competitions. It consists in (a) providing information about the game plan to be implemented and how to adapt it; and (b) boosting athletes’ motivation and confidence

(e.g., Vargas-Tonsing, 2009). This study aimed to model athlete briefing strategies during major competitions in elite team sports. Nine national Head Coaches (HC) participated voluntarily in semi-structured interviews to identify briefing strategies demonstrating transactional and transformational styles of leadership (Bath, 1999). Results showed that the HC used seven strategies: (a) present players with an assessment of the opposing team's game and game plan; (b) provide players with roles; (c) encourage players to analyze the opponents' game and develop the game plan; (d) encourage players to be flexible and adapt their tactics; (e) manage players' emotions and fatigue; (f) enable players to implement tactics as per the briefing; and (g) foster motivation (a-b relate to transactional leadership, c-g relate to transformational leadership).

The data highlighted that the HCs were both transformational and transactional leaders, meaning they were concerned with tasks to be completed and individual well-being. There would be merit in practitioners encouraging HCs to develop programs using transactional leadership as a strategy to provide concise information on the opposing team's strengths and weaknesses and what and how the players could be expected to implement (patterns of coordination and players' roles). Such strategies could lead athletes to perform better. Programs related to transformational leadership as a strategy to encourage athletes to make extra effort and improve performance would also be of interest. Leadership might be developed by focusing on individual needs and resources (e.g., confidence) rather than expected behaviors (e.g., successful behaviors). We contend that such perspectives could enable athletes to achieve a higher level of performance.

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### LEC-10: Collegiate Sport II

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#### LEC-10A

##### **NCAA DIVISION III COACHES' SUPPORT OF AND WILLINGNESS TO USE SPORT PSYCHOLOGY SERVICES**

*Matthew Jones, University of Tennessee, Knoxville, USA;  
Rebecca Zakrajsek, University of Tennessee, USA;  
Morgan Eckenrod, University of Tennessee, USA;  
Scott Martin, University of North Texas, USA*

Information on the availability, value, and use of sport psychology services at the collegiate level has primarily come from National Collegiate Athletic Association (NCAA) Division I (DI) institutions (Wrisberg, Loberg, Simposn, Withycombe, & Reed, 2010). However, NCAA DIII is the largest division both in number of participants and institutions (Division III 2017-18 Facts and Figures). Approximately 23% of NCAA DIII institutions reported having sport psychology services available on campus (Connole, Shannon, Watson, Wrisberg, Etzel, & Schimmel, 2014). Yet, little is known about the perceptions and use of sport psychology services at this level. Coaches are often considered the "gatekeepers" to sport psychology services and key agents to integrating services in athletic departments (McGuire & Scogin, 2013). Therefore, the purpose of this study was to explore NCAA DIII coaches' willingness to utilize sport psychology services and support the employment of sport psychology consultants (SPCs) at their university. Of the 731 NCAA DIII coaches (441 males) who participated in this study, 94 (13%) reported that they had access to a SPC at their

institution and 461 (63%) were in favor of including one among their athletic department support staff. Chi square analyses indicated that female coaches, those with previous experience with SPCs, and those who perceived services to be highly effective were significantly more supportive of sport psychology services compared to their counterparts ( $p < .001$ ). Coaches reported a greater interest in using sport psychology services for performance issues rather than for personal concerns. They were primarily interested in services for "performing as well in competition as in practice," "improving focus," "enhancing performance," and "building team cohesion." Noting the interest, SPCs may consider reaching out to local institutions to establish open two-way communication about how and in what ways sport psychology services can assist with student-athlete development at the NCAA DIII level.

#### LEC-10B

##### **INVESTIGATING STUDENT-ATHLETE BURNOUT THROUGH COACH-ATHLETE RELATIONSHIPS AND GRATITUDE**

*Jeffrey Ruser, California State University, Fresno, USA;  
Jenelle Gilbert, California State University, Fresno, USA;  
Wade Gilbert, California State University, Fresno, USA;  
Stephanie Moore-Reed, California State University, Fresno, USA*

Gratitude, a character strength of positive psychology, is the affective-cognitive recognition and appreciation that one has benefitted from or received value from others (Emmons & McCullough, 2003; Gabana, Steinfeldt, Wong, & Chung, 2017). Higher levels of gratitude are negatively correlated to lower levels of burnout in NCAA student-athletes (Gabana et al., 2017). Furthermore, in coach-athlete relationships affect, behaviors, and cognitions are interconnected (Jowett & Ntoumanis, 2004). This study investigated the relationships between coach-athlete relationships and gratitude, athlete burnout and gratitude, and trait gratitude versus state gratitude among NCAA student-athletes. Participants (N=596) from NCAA Divisions I (n=305), II (n=202), and III (n=89) institutions completed an online survey consisting of the Gratitude Questionnaire-6 (McCullough, Emmons, & Tsang, 2002), Gratitude Adjective Checklist (McCullough et al., 2002), Athlete Burnout Questionnaire (Raedeke & Smith, 2001), and the Coach-Athlete Relationship Questionnaire (Jowett & Ntoumanis, 2004). Correlational analysis revealed a significant moderate relationship between coach-athlete relationships and sport-specific state gratitude ( $r=0.500$ ,  $p<0.001$ ,  $r^2=0.250$ ), and a significant moderately high relationship between athlete burnout and sport-specific state gratitude ( $r=-0.667$ ,  $p<0.001$ ,  $r^2=0.445$ ). Trait gratitude was significantly ( $p<0.001$ ) moderately related to general state gratitude ( $r=0.422$ ) and had a significant ( $p<0.001$ ) low strength relationship with sport-specific state gratitude ( $r=0.324$ ). The relationship between athlete burnout and trait gratitude was low ( $r=-0.234$ ,  $p<0.001$ ,  $r^2=0.055$ ), revealing a slightly stronger relationship than previous findings (Gabana et al., 2017). Results are consistent with previous research on burnout and gratitude in sports (Chen & Kee, 2008; Gabana et al., 2017). This study is the first to examine coach-athlete relationships and gratitude, as well as adapt the GAC for sport-specific use. Results suggest that gratitude may serve as a buffer against athlete burnout, and that strong coach-athlete relationships may increase athlete gratitude. Further research is needed to determine best practices for gratitude interventions and coach-athlete relationship development.

**LEC-10C****THROUGH THE EYES OF A COACH: A QUALITATIVE INVESTIGATION OF NCAA COACHES AND THEIR PERSPECTIVES ON ADVERSITIES, RESILIENT CHARACTERISTICS, AND STRATEGIES TO BUILD RESILIENCE IN ATHLETES**

*Stephen Gonzalez, The College at Brockport, State University of New York, USA;*

*Nick Galli, University of Utah, USA*

Developing psychological resilience is highly important given the stressors and demands of athletic competition. Protective factors, which are conditions or attributes that help individuals navigate adversities, are one of the essential elements of resilience (Masten, 2001). Research in sport has addressed individual (Fletcher & Sarkar, 2012; Galli & Vealey, 2008) and social protective factors (Morgan, et al. 2015), but only through the perspective of athletes. Coaches are vital to the development of athletes, and while limited research has examined coaches developing resilience (White & Bennie, 2015), further investigation into their perspectives will greatly enhance the understanding and development of resilience in sport. The purpose of this study was to understand coaches' perspective on the development of resilience in athletes. Twelve collegiate coaches (Male= 9, Female= 3) from 10 different sports (Men's teams= 4, Women's teams= 4, Combined teams= 3), with a minimum of five years collegiate coaching experience (ranging from 5 to 44 years), were interviewed with the following research questions: 1) What adversities do college athletes face? 2) What are the characteristics of a resilient athlete? 3) What strategies do coaches use to build resilience in athletes? We used thematic analysis (Braun & Clarke, 2006) to identify four types of adversities (low ability to handle stress, environmental influences, sport performance issues, and personal struggles), nine resilient characteristics (dedicated, motivated, adaptable, strong social skills and relationships, team oriented, assertive, mental strength, coping skills, and enjoyment of the sport), and seven resilience building strategies (establishing and cultivating relationships, fostering a culture of accountability to the team, facilitating coping, challenging and nurturing, guidance, inspiring transcendent action, and social support). The results of this study provide researchers insight to help shape future studies and measurement of resilience, and provide practitioners with information to help guide interventions with coaches and teams to enhance resilience.

**LEC-10D****GENDER DIFFERENCES IN NCAA SPORT COACHING: AN EXPLORATION OF PASSION, PERFECTIONISM, AND LEADERSHIP BEHAVIORS.**

*Shelby Anderson, Ithaca College, USA;*

*Justine Vosloo, Ithaca College, USA;*

*Sebastian Harenberg, Ithaca College, USA*

Sport is typically viewed as a masculine dominated domain (Surujal & Vyas-Doorgapersad, 2015). Previous research shows that women face many barriers (e.g., sexism, perceived incompetence, job security) in sport coaching (Norman, 2013; Shaeperkoetter, Mays, & Bass, 2017). Yet, there is limited research on what personality characteristics and behavioral differences might exist between male and female coaches. Hence, the purpose of this study was to explore gender differences in NCAA coaches' passion, perfectionism, and leadership behaviors. Three hundred and ninety NCAA (DI-III) coaches completed The Passion Scale (Vallerand et

al., 2003), the Leadership Scale for Sports (Chelladurai & Saleh, 1980), and the Sport Multidimensional Perfectionism Scale 2 (Gotwals & Dunn, 2009). Participants identified as male (n=231, 59.5%) and female (n=157, 40.3%) and had been coaching for approximately 13 years (M=12.81, SD=9.99). Male coaches reported significantly higher levels of obsessive passion (t(386)=2.44, p<.01), harmonious passion (t(386)=2.48, p<.01), and passion criteria (t(386)=3.02, p=.001) compared to female coaches. In addition, male coaches reported significantly higher levels of perfectionistic strivings (t(386)=4.43, p<.001) and organization (t(386)=3.60, p<.001) compared to female coaches. Finally, male coaches reported higher levels of training and instruction leadership behaviors (t(386)=3.02, p<.01) and autocratic leadership behaviors (t(386)=2.66, p<.01) compared to female coaches. The results indicated that male coaches perceived themselves to have higher levels of passion, perfectionism, and leadership behaviors compared to female coaches. Possible explanations may be the collegiate context or sport in which the coaches are working. The findings warrant further exploration of gender differences in sport coaching. The presentation will include possible further explanations, implications, limitations, and suggestions for coaches, practitioners, and sport psychology researchers.

**LEC-11: Youth Sport II****LEC-11A****POSITIVE PEACE INDICATORS IN LIBERIA YOUTH: EFFECTIVENESS OF SPORT FOR DEVELOPMENT PROGRAMMING**

*Lindsey Blom, Ball State University;*

*Mariah Sullivan, Ball State University;*

*Anna Farello, Ball State University;*

*Jorge Ballesteros, Arizona State University*

Previous literature has demonstrated that negative attitudes towards violence, high senses of purpose, and high levels of closeness are essential components for youth to thrive (e.g., Birkeland et al., 2014; Spencer, 2007). Countries like Liberia, who have experienced traumatic civil war and Ebola outbreak, have many vulnerable youth, homeless, orphaned and impoverished. The Life and Change Experience through Sports (L.A.C.E.S.) program was designed to use adult mentorship through soccer to teach life skills to Liberian youth. Sport for Development and Peace (SDP) programs, like L.A.C.E.S. have been shown to be an effective way of reaching youth populations (Bean, Forneris, & Fortier, 2015; Mandigo, Corlett, & Ticas, 2016; Meir, 2017); however, the effectiveness of these programs at the individual change level of peace indicators has not been thoroughly studied. Thus, this study explored the effectiveness of the L.A.C.E.S. program over 7 months of programming, in three different towns, in addressing peace indicators of 181 Liberia boys and girls, 9-14 years. Results indicated that the program was effective across sites in decreasing in attitude towards violence,  $F(1,100) = 54.96, p < .01$ ; increasing early sense of purpose,  $F(1,100) = 27.86, p < .01$ ; increasing social responsibility,  $F(1,100) = 49.84, p < .01$ , and increasing in perceptions of closeness to L.A.C.E.S. coaches,  $F(2,100) = 5.91, p < .05$ . Furthermore, post program attitudes of violence were predicted by post program sense of purpose, living situation, and social responsibility,  $F(3,95) = 12.16, p < .01, R^2 = .20$ . Findings indicate that the SDP program did improve positive peace indicators in these at-risk Liberian youth. Implications for programming and research will be discussed, including considering the sociocultural factors of at-

risk participants, working with youth from developing countries in sport based life skills programs, and coach education.

## LEC-11B

### MAKING EVIDENCE-INFORMED DECISIONS TO PROMOTE LIFE SKILLS DEVELOPMENT: THE CASE OF GOLF CANADA

*Sara Kramers, University of Ottawa, Canada;*  
*Adam Hunter, Golf Canada, Canada;*  
*Corliss Bean, the University of British Columbia, Canada;*  
*Martin Camiré, University of Ottawa, Canada*

In 2014, Golf Canada partnered with researchers from the University of Ottawa to develop evidence-informed programming designed to facilitate the teaching of life skills within their two national youth development programs, Golf in Schools and Learn to Play (Kendellen, Camiré, Bean, Forneris, & Thompson, 2017). In 2016, a life skills framework and a life skills curriculum were created for these two programs and were launched nationwide to help golf coaches adopt explicit approaches towards life skills development, which have been associated with greater positive outcomes than implicit developmental approaches (Bean & Forneris, 2016). Additionally, in 2017, Golf Canada launched an online life skills training program specifically designed to help golf coaches teach the life skills curriculum embedded within Golf in Schools and Learn to Play. In the first half of the presentation, Sara Kramers will outline how the body of research within the field of Sport-Based Youth Development was translated into evidence-informed programming for Golf Canada. Further, the findings of a recent empirical evaluation of the Learn to Play program will be discussed. The study examined the quality of coaches' program delivery (n = 13; Mage = 38; 1 female), through interviews, observations, and a questionnaire. Specifically, two groups were compared: (a) coaches using the old curriculum, with no integrated life skills (implicit approach); and (b) coaches using the new curriculum, with integrated life skills (explicit approach). Such findings provide preliminary evidence as to how the new life skills curriculum is associated with markers of program quality. In the second half of the presentation, Adam Hunter, Golf Canada's Manager of Junior Programming, will share his experience of the partnership and discuss future directions and collaborations. The insights shared from the present partnership can be beneficial beyond Golf Canada, as they can provide an exemplar research-to-practice model for other National Sport Organizations.

## LEC-11C

### IMPLICATIONS AND APPLICATION FROM A SYSTEMATIC REVIEW OF GLOBAL SPORT AND NON-SPORT YOUTH DEVELOPMENT PROGRAMS

*Lindsey Blom, Ball State University, USA;*  
*Meredith Whitley, Adelphi University, USA;*  
*William Massey, Oregon State University, USA;*  
*Martin Camiré, University of Ottawa, Canada;*  
*Megan Chawansky, University of Kentucky, USA;*  
*Shawn Forde, University of British Columbia, Canada;*  
*Mish Boutet, University of Ottawa, Canada;*  
*Amanda Borbee, Adelphi University, USA;*  
*Simon Darnell, University of Toronto, Canada*

While the dominant trend in youth sport is the separation of programs that foster positive youth development from those that promote talent development, there is a push for integrated,

comprehensive youth sport programming (Côté & Hancock, 2016; Strachan, Fraser-Thomas, & Nelson-Ferguson, 2016). Thus, practitioners must consider ways to design youth sport programs in an integrated, comprehensive manner. One barrier to this is the gap in our understanding of 'what works' and 'what influences' sport-based youth development programs. In this presentation, findings will be shared from a systematic review and comparative analysis, funded by the Laureus Sport for Good Foundation, which assessed sport-based youth development programs, along with non-sport youth development programs, in six global cities (Cape Town, Hong Kong, London, Mumbai, Nairobi, and New Orleans). After a careful screening process, 49 studies featuring sport-based youth development programs and 35 non-sport studies were included, with quantitative studies critically appraised using the Quality Tool for Quantitative Studies and qualitative studies critically appraised using a meta-theory and meta-method approach. While the results suggest a pattern of low quality evidence, we were still able to identify a set of best practices for practitioners seeking to design integrated, comprehensive youth sport programs that foster both youth development and talent development, including: (a) access; (b) climate (e.g., safe space, supportive adults/peers); (c) relationships; (d) intervention design (e.g., rule modification); (e) leadership; and (f) pathways for long-term engagement. These findings will be shared in this presentation, along with next steps for both practitioners and researchers in youth sport.

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## LEC-12: Elite/Pro Sport II

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## LEC-12A

### MAKING THE PODIUM: EXAMINING THE FACTORS BEHIND OLYMPIC RESILIENCE

*Ashley Simon, University of Denver, USA;*  
*Cory Helfer, University of Denver, USA;*  
*Scott Anderson, Springfield College, USA;*  
*Jamie Shapiro, University of Denver, USA;*  
*Peter Haberl, USOC, USA*

The purpose of this study was to gain an in-depth understanding of the factors that allowed athletes to successfully medal at the Olympic Games after a previous non-medaling performance. Researchers have attempted to identify factors responsible for the successful outcomes of athletes by exploring athletes', coaches', and significant others' perceptions of factors that influence performance (Gould et al., 2002; Greenleaf et al., 2010; Sarkar et al., 2001). More recently, literature has focused on the role of adversity-related growth in performance. Fletcher and Sarkar (2012) found that most of the Olympians in their study "argued that if they had not experienced certain types of stressors. . .they would not have won their gold medals" (p. 672), deeming adversity necessary for their development as Olympic champions. Additionally, Sarkar, Fletcher, and Brown (2015) found that the majority of gold medalists in their study believed that they would not have won their medal had they not underperformed in previous Olympic Games.

This small population of resilient athletes represents an important resource that could add to our understanding of the factors affecting performance at the Olympic level. The analysis of semi-structured interviews with nine Olympic athletes resulted in four main themes (psychological factors, physical factors, staff and team support, and organizational factors), seven subcategories, and 21 raw data themes that described factors that facilitated these athletes' medaling performance



at the Games after a previous non-medaling performance. Many factors reported by the participants as influencing their Olympic performance were psychological in nature, with seven of the nine participants reporting beginning, or becoming more dedicated to, working with a sport psychologist following their non-medaling performance. Additionally, five of the participants reported challenging life events as important contributions to their medaling performance. Based on these findings, the presenters will provide guidance for how practitioners can support these athletes.

## LEC-12B

### PSYCHOLOGICAL RESILIENCE IN OLYMPIC MEDAL WINNING COACHES: A LONGITUDINAL QUALITATIVE STUDY

*Nathan Hilton, Nottingham Trent University, UK;  
Mustafa Sarkar, Nottingham Trent University, UK*

Although there is burgeoning research on psychological resilience in elite athletes, to date, there has been no empirical investigation on resilience in elite coaches (Sarkar & Fletcher, 2016). The purpose of this study was, therefore, to explore psychological resilience in world class coaches and how they develop resilience in athletes. A longitudinal qualitative design (Hermanowicz, 2013) was adopted due to the dynamic and temporal nature of resilience. Five Olympic medal winning coaches (4 men and 1 woman) were interviewed twice over a 12-month swimming season. Thematic analysis using inductive and deductive reasoning was employed to analyse the data. Findings revealed 14 higher-order themes which were categorized into 3 general dimensions: coach stressors (viz. managing the Olympic arena, preparation for major events, coach personal wellbeing, directing an organization), coach protective factors (viz. progressive coaching, coaching support network, managing work/life balance, secure working environment, durable motivation, effective decision making), and developing resilience in athletes (viz. developing a strong coach-athlete relationship, creating a facilitative environment, developing a resilience process, athlete individual factors). The results are presented to demonstrate the interplay between coach stressors and protective factors over time, which offers an original contribution to the resilience literature by providing a unique insight into the dynamic and temporal nature of resilience in Olympic medal winning coaches. The findings provide practitioners with a platform for developing resilience in elite athletes and coaches.

## LEC-12C

### PERCEIVED OUTCOMES OF A BIOFEEDBACK AND NEUROFEEDBACK TRAINING INTERVENTION FOR OPTIMAL PERFORMANCE: LEARNING TO ENHANCE SELF-AWARENESS AND SELF-REGULATION WITH OLYMPIC ATHLETES

*Margaret Dupee, Good To Great, Canada;  
Tanya Forneris, University of British Columbia, Canada;  
Penny Werthner, University of Calgary, Canada*

The purpose of this qualitative study was to explore the perceived outcomes of a biofeedback and neurofeedback training intervention with Olympic athletes. Moss and Wilson (2012) state that biofeedback and neurofeedback when used as complementary tools provide enhanced awareness

of the complexity of the mind-body connection, increased control over physiological and neurological mechanisms, and increased access to self-regulation strategies. Research studies in the fields of biofeedback and sport psychology argue the benefits of an athlete's ability to self-regulate and optimal performance. Dupee et al. (2015) noted a relationship between overall physiological self-regulation ability and world ranking in 15 elite athletes preparing for the Vancouver 2010 Olympics. Anderson et al. (2014) argue that the range of factors contributing to peak performance highlights the need for athletes to have a highly developed ability to psychologically self-regulate all relevant aspects of their optimal performance states. Thus, highly self-regulated mental and physical states result in superior performance (Anderson et al. 2014; Dupee et al., 2015; Hanin, 2000); however, there is a paucity of research on the athlete's experience learning to self-regulate.

For this study five Olympic level athletes preparing for world championships and the 2012 Olympic Games took part in a 20-session intervention over the period of one year. At the completion of the intervention, a semi-structured interview was conducted with each athlete. The athletes indicated that they became more self-aware, were better able to self-regulate both their physiological and psychological states, developed a greater sense of personal control, and a greater understanding of skills inherent in the field of sport psychology. Three of the athletes made the Canadian Olympic team for the 2012 Olympic Games and two of those athletes won bronze medals. The present study suggests that biofeedback and neurofeedback training may be useful in enabling athletes to perform optimally.

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## LEC-13: Special Populations

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## LEC-13A

### DEVELOPING COGNITIVE AND MOTOR CREATIVITY IN CHILDREN THROUGH AN EXERCISE PROGRAM USING NONLINEAR PEDAGOGY PRINCIPLES

*Veronique Richard, National School of Circus/Cirque du Soleil, Canada;  
Jean-Charles Lebeau, Ball State University, USA;  
Fabian Becker, Florida State University, USA;  
Nataniel Boiangin, Florida State University Ice Hockey, USA;  
Gershon Tenenbaum, Florida State University, USA*

Movement creativity is a key factor in motor development in children (Milić, 2014; Torrents, Ric, & Hristovski, 2015), yet very few exercise programs promote the development of motor creativity. In this study, we tested the effectiveness of a creative physical education program on children's motor and cognitive creativity, and their probability of adaptation to exercise challenges. A total of 140 fourth-grade students (Mage = 9.56 ± 0.61 years) from eight elementary schools were randomly allocated to a conventional or creative program for 10 sessions over a 3 months period. Principles from the nonlinear pedagogical framework (Chow et al., 2006) were followed to transform the conventional physical education program into a creative one. Coaches delivering the creative program were trained on strategies aimed at promoting creativity in children. Adaptation measures were informed by the Two Perception Probabilistic Concept of Adaptation (Tenenbaum, Lane, Razon, Lidor, & Schinke, 2015). Following the 3-months intervention,

children in the creative program displayed higher originality in thinking and improved scores in the fluency and flexibility dimensions of motor creativity, compared to children in the conventional program. No program differences were observed on the probability of adaptation to exercise challenges. These results suggest that implementing nonlinear pedagogy into a conventional exercise program can increase children's cognitive and motor creativity. Examples on how to use key principles of the nonlinear pedagogy (i.e., manipulation of constraints, variability of movement, improvisation, and problem solving) are presented. Along with these examples, evidenced-based guidelines for developing both cognitive and motor creativity in pre-adolescents are provided.

## LEC-13B

### PERFORMANCE PSYCHOLOGY IN A FILM SETTING – THE GROUNDED THEORY OF EFFECTIVE FILM PRODUCTION COLLABORATION (EFPC MODEL)

*Ola Krukowska-Burke, Bucks New University, UK;  
Ewa Serwotka, Fundacja Sportu Pozytywnego, Poland;  
Aleksandra Zienowicz-Wielebska, Fundacja Sportu  
Pozytywnego, Poland;  
Pola Weiner, Fundacja Sportu Pozytywnego, Poland*

Performance psychology focuses on supporting people engaged in endeavours where excellence matters, and on helping people to reach their potential (Hays, 2006). Consistently delivering excellent performance and being prepared for performance situations is important not only in sport, but also in other performance domains, such as the performing arts (Portenga et al., 2011). However, studies of the performing arts domain are limited in number, very few of which have focused on the setting of film production (e.g. Mroz, 2015). To the authors' best knowledge, there are currently no studies examining the effective collaboration of various film crew members from the perspective of performance psychology.

The present study aimed to explore the dynamics which impact the collaboration between film production crew in one European country; 20 actors, 16 directors, 12 producers, 6 cameramen, 5 sound technicians, 4 costume designers, 3 make-up artists, 3 film editors, 2 screenwriters, and 2 stage designers participated in semi-structured interviews and observations conducted over a three-year period. Based on Strauss and Corbin's (1998) grounded theory, the Model of Effective Film Production Collaboration (EFPC) was created. The EFPC model suggests that conditions (e.g. need for achievement) influence group- and individual-level factors (e.g. communication and self-confidence) which in turn affect the quality of film production collaboration, that is perceived through group cohesiveness, quality of relationships, and perseverance. The EFPC Model will be presented in detail along with quotes from artists showcasing the dynamics that can lead to productive collaboration and success; which here is defined as satisfaction from the work, positive financial outcomes, or positive reactions and reviews from the audience. The results constitute a first attempt to investigate the dynamics between members of a film production crew and are grounded in the specificity of the film environment present in that country.

## LEC-13C

### THE ART – APPLIED, RELEVANT & TIMELY – OF INTEGRATED MENTAL SKILLS TRAINING (MST) WITHIN A SPECIAL OPERATIONS FORCES (SOF) UNIT WITH PROMISING OUTCOMES

*Nicholas Bartley, IMG (A)cademy - USASOC, USA;  
Jay Dawes, University of Colorado Colorado Springs, USA;  
Paul Goldberg, USASOC, USA; David Bricker, USASOC, USA;  
Kelsey Werth, USASOC, USA; Logan Brodine, USASOC, USA;  
Tony Federico, USASOC, USA; Casey Clark, USASOC, USA;  
Robert Rodriguez, USASOC, USA*

A closer look into the work of a military human performance program (HPP), specifically the Mental Performance Specialist (MPS), yields the ART of integrated MST for an Army SOF unit. Best practices are shared, leveraging video examples, on how MST is integrated within the HPP and military training. Looking through an economical lens, practitioners are encouraged to be applied, relevant and timely in their training approach. Psychological skills profiles have been shown to relate with army physical fitness test (APFT) performance measures (Hammermeister, et. al., 2010) and an integrated mental skills training and strength and conditioning intervention resulted in significant improvement on the APFT (Meyer, 2018). Moreover, Meyer (2018) quantified 91% of participants acknowledged the benefits of such training for other military performances (e.g., weapons qualification). Participation in the HPP's Mental Performance education and training, as well, appears to have a significant impact on a Soldier's occupational effectiveness.

We investigated if Soldiers who participate in mental performance training perform better on a positive identification and engagement task concluding an outdoor, live fire simulated stress shoot? Soldiers were separated into two categories, those that reported use of mental performance services provided by the HPP (i.e., "users") (n=15) and those who did not (i.e., "non-users") (n=37). A series of independent t-tests were performed to determine if mean score differences existed between these groups with effect sizes (d) calculated. The level of statistical significance for these tests was set a priori at 0.05. There appears to be a significant difference in Soldiers who participate in mental performance training versus those who do not on the PID task in terms of overall PID Score (Small-Moderate effect size), PID Accuracy (Small-Moderate effect size), Shot Accuracy (Small-Moderate effect size), Kill shots (Small-Moderate effect size) and shot time (Small effect size).

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## LEC-14: Diversity & Culture

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## LEC-14A

### COMING TO VOICE: INTERSECTIONS OF IDENTITY FOR U.S. AFRICAN AMERICAN FEMALE FORMER OLYMPIC SPRINTERS

*Sharon Couch-Fikes, University of Tennessee, Knoxville, USA;  
Leslee Fisher, University of Tennessee, USA;  
Lauren McHenry, University of Tennessee, USA;  
Matthew Moore, University of Tennessee, USA*

Few sport psychology researchers have explored components of identity for elite-level female athletes (e.g., Fisher, 1997; Fisher & Bredemeier, 2000) and even fewer have focused their attention on African American elite female athletes (e.g., Fuller, 2016). It is vital that sport psychology professionals have an understanding of how elite-level female athletes think about

and experience multiple components of their identities so that they can best serve their needs. Thus, the purpose of this study was to use Consensual Qualitative Research (CQR; Hill, 2012) to explore U.S. African American female former Olympic sprinters' identity components (such as race, gender, and class) as they moved through their competitive experiences over time. Using purposeful and snowball sampling (Patton, 2002), 10 U.S. African American female former Olympic sprinters participated in semi-structured interviews lasting 60 minutes to over two hours. Using CQR (Hill, 2012), five major domains of experience were constructed: (a) initial track and field experience, where they reported perceiving their identities to be centered on their athletic ability; (b) transition to college; (c) college experience, where they perceived a greater intersection among their identities of being Black, female, athletes, and students, which lead to feelings of being the "only one" in their region or university; (d) transition to Olympic and professional competition; and (e) professional and Olympic track and field experience, where they reported perceiving their identities to be more closely associated with being Black and female, as they described experiences of discrimination and a discrepancy in payment and endorsement opportunities compared to Caucasian female and male track and field professional and Olympic athletes. The final focus of this presentation will be on the ways that sport psychology professionals can better understand how identity plays a role in elite athletes' practice and competition experiences.

### LEC-14B

#### NAVIGATING TIMES OF HARMONY AND DISCORD: THE EVER-CHANGING ROLE PLAYED BY THE FAMILIES OF ELITE IMMIGRANT ATHLETES

*Thierry Middleton, Laurentian University, Canada;*  
*Robert Schinke, Laurentian University, Canada;*  
*Odirin P. Oghene, Laurentian University, Canada;*  
*Diana Coholic, Laurentian University, Canada;*  
*Kerry McGannon, Laurentian University, Canada*

Canadian and US Olympic teams regularly feature immigrant athletes, such as speed skater Maame Biney who was born in Ghana and competes for the US. Like most elite athletes, their families play an important role in their development, one that is made more dynamic and complex by their acculturation to an unfamiliar society (Schinke, Blodgett, McGannon, & Ge, 2016; Taylor & Collins, 2015). To develop our understanding of the roles played by immigrant families, nine elite immigrant athletes partook in an arts-based conversational interview and a moving story interview (Jiron, 2011; Sinding, Warren, & Paton, 2012). Three composite vignettes were developed to bring to light the voices of marginalized community members and allow readers to vicariously learn from the participants' experiences. The teachings garnered through these vignettes offer deeper sub-clinical understandings of complex relocation circumstances and allows for social change strategies to be spurred by the athletes and their family members (Blodgett, Schinke, Smith, Peltier, & Pheasant, 2011). The first vignette reveals the need for family support during the early stages of sport immersion. Sensitizing practices proffered include helping families navigate their immersion into sports organizations, find a suitable sports team, and be aware of funding opportunities. The second vignette reveals the highs and lows that family relationships go through as each member acculturates uniquely, often with younger athletes acclimating faster than siblings and parents. Suggestions to ease this process include the development of cross-cultural learning experiences for family members and helping coaches communicate athlete expectations appropriately. The third vignette is about the athletes' stories

of their sport endeavours as family undertakings. To help foster positive family synergy that enables athletes to feel connected to their home culture, practices including adapting training schedules to be sensitive to family traditions and diverse cultural values are discussed.

### LEC-14C

#### HIP-HOP DANCE THERAPY: IMPLEMENTATION OF A STRENGTH-BASED PROGRAM FOR AT-RISK YOUTH

*Allison Elber, University of Massachusetts Boston, USA;*  
*Courtney Hess, University of Massachusetts Boston, USA;*  
*Laura Hayden, University of Massachusetts Boston, USA;*  
*Ian Levy, University of Massachusetts Boston, USA*

Given the bevy of difficult social and emotional experiences facing marginalized, under-resourced youth, and their lack of access to adequate mental health services, we implemented a strength-based, hip-hop dance program at an urban after-school community center to help at-risk youth develop the coping skills necessary to navigate social and emotional challenges. Difficult social and emotional experiences are a common part of childhood and adolescence, particularly for those rooted in marginalized and under-resourced communities where young people are at a greater risk of being exposed to adverse life events, such as violence (Kliewer & Lepore, 2014), loss (Finkelhor, Ormrod, Turner, & Hamby, 2005), economic stress, and discrimination (Sanchez et al., 2013; Sanchez et al., 2017). As such, the current study used hip-hop lyric writing and dance to provide a platform for participants to explore and process themes such as identity, interpersonal relationships, family dynamics, and responsibility, through hip-hop dance, group discussion, and journaling during weekly sessions. Multimodal data collection was used whereby facilitators video recorded portions of each program session across the 12 weeks to create a mini-documentary of participants' sessions. Additionally, semi-structured interviews were conducted to understand participants' program experiences and perceptions of what they learned. To increase validity in data collection, participants viewed the video-recorded sessions and consulted with their written journals during the final reflective interviews to facilitate authentic recall of experiences, and minimize recall bias. Interpretative Phenomenological Analysis (IPA) was used to analyze data as it places an emphasis on capturing the lived experiences and perceptions of the program from the participants' perspectives (Smith & Osborn, 2004). Preliminary results suggest the benefits of using a culturally informed hip-hop lyric writing and dance program help to buoy social and emotional development amongst at-risk youth. Implications for practitioners will be discussed during the lecture.

### LEC-14D

#### THE KAEPERNICK EFFECT: NAVIGATING THE INTERSECTION OF CULTURE, GENDER ROLE, AND ATHLETIC IDENTITY

*Carolyn Davis, Fortitude Premier Psychological Services;*  
*Sport and Performance Consulting, USA*

Historically, literature addressing sport psychology such as Brewer, VanRaalte, and Linder's (1993) article, suggest that when an athlete has a strong identity with his chosen sport, additional problems of transition can occur at any time. Typically, a central or exclusive athletic identity can cause athletes to define themselves predominantly by their role in

sport, sometimes to the detriment of their personal, cultural, or social identities. This can be an important underlying factor or potential pre-cursor for social or emotional problems regarding multiple identity roles and/or conflicting identities. Additionally, research suggests that men's gender role socialization is often associated with their psychological and emotional problems (O'Neal, 2002). Literatures also suggest that the concept of dualism/double consciousness, experienced by many athletes of color, is viewed as a coping skill; however, this concept can also be a source of psychological distress (Moore, 2005). To illustrate this point, Hawkins (2001) states that African American male athletes receive almost no psychological services, even though, as literature suggest, they tend to be the most idolized by their community, and potentially conflicted subgroup of the population.

The field of psychology has revealed a growing interest in providing psychotherapeutic services to African American populations, specifically males (Parham, 2002; Davis, 2008). However, surprisingly, many clinicians and academics still feel less than comfortable working psychotherapeutically with African American people, because of the many complex issues including dualism/double consciousness (Allison, Crawford, Echemendia, Robinson, & Knepp, 1994).

In order for psychotherapy, as well as other sport and performance psychology related services to be useful for male, athletic, populations of color, it's important that the therapist be aware of the potential difficulty in navigating the roles of culture, gender role expectations, and athletic identity, and that the intersection of these layers of identity can become a source of psychological distress. This lecture intends to identify key learning points addressing potential areas of intersection and conflict regarding athletic, cultural, and gender role identity, among male athletes of color, and provide recommendations regarding ways to competently and successfully treat and support this population.

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### LEC-15: Injury/Rehabilitation

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#### LEC-15A

##### **EXAMINING THE EXTENT TO WHICH CONSTRUCTS FROM THE INTEGRATED BEHAVIORAL MODEL ARE ASSOCIATED WITH COLLEGE STUDENT-ATHLETE INTENTIONS TO REPORT SYMPTOMS OF A CONCUSSION**

*Jeffrey Milroy, University of North Carolina at Greensboro, USA;*  
*David Wyrick, University of North Carolina at Greensboro, USA;*  
*Kelly Rulison, University of North Carolina at Greensboro, USA;*  
*Brandon Mendenhall, University of North Carolina at Greensboro, USA;*  
*Erin Reifsteck, University of North Carolina at Greensboro, USA;*  
*Lindsey Sanders, University of North Carolina at Greensboro, USA;*  
*Samantha Kelly, University of North Carolina at Greensboro, USA*

Depending on the sport, between 50 and 80% of sport-related concussions (SRCs) go unreported (Register-Mihalik, 2013; Kroshus et al., 2014; Baugh et al., 2014). SRCs can result in significant short-term deficits, including diminished neurocognitive function (Broglio et al., 2008), as well as lead to long-term neurodegenerative effects such as Parkinson's Disease and Chronic Traumatic Encephalopathy (Sudman et al., 2014). Kroshus and colleagues (2014) proposed using the

Integrated Behavioral Model (Fishbein & Yzer, 2003) to design SRC education approaches that encourage athletes to report concussive symptoms. This model includes attitudes, norms, and personal agency as key factors related to behavioral intentions. In this study, data were drawn from a web-based survey of 2,856 collegiate student-athletes (51.6% female, 14% African American, 71% Caucasian, 15% Other) attending 16 schools representing all three NCAA divisions. The survey was part of a larger project aimed to increase concussion reporting. We used multiple regression analyses to test the extent to which constructs from the IBM are associated with intentions to report concussion symptoms to a coach or athletic trainer. After controlling for gender, whether the athlete was in season, and sport type (contact, limited contact, non-contact) we found that injunctive and subjective norms, expectancies, positive concussion attitudes, confidence, and self-efficacy were all significantly and independently associated with reporting intentions. In the final combined model, positive attitudes were most strongly associated with reporting intentions ( $\beta = .31, p < .001$ ) whereas confidence and injunctive norms were no longer significant. Recommendations are provided for how sport psychology professionals might target these factors through performance consulting to encourage student-athletes to report symptoms of a potential concussion, in turn reducing the time between symptom onset and treatment.

#### LEC-15B

##### **SEX DIFFERENCES IN CONCUSSION KNOWLEDGE AND REPORTING BEHAVIORS AMONG COLLEGIATE ATHLETES**

*Jamie McAllister-Deitrick, Coastal Carolina University, USA;*  
*Erica Beidler, Duquesne University, USA;*  
*Jessica Wallace, Youngstown State University, USA;*  
*Morgan Anderson, Michigan State University, USA*

Previous research has indicated female athletes have greater concussion symptom knowledge than male athletes (Wallace, et al., 2017). Recent studies have begun to explore the effect of concussion knowledge and attitudes on reporting behaviors (Register-Mihalik, et al., 2013), suggesting increasing concussion knowledge may have a positive effect on reporting behaviors. The current study aimed to explore sex differences in knowledge surrounding concussions and the impact on reporting behaviors.

874 collegiate athletes (508 males), aged 19.74 years (SD=1.88) from 6 institutions completed 10-minute surveys. The survey included items on personal/sport demographics and a concussion knowledge assessment, including 47 items focusing on signs/symptoms, injured structures, and mismanagement complications. The survey was distributed in paper/pencil or via an online Qualtrics survey on an iPad.

Independent samples t-tests revealed female athletes scored significantly higher than male athletes on total concussion knowledge ( $t(770.34)=-9.521, p<.01$ ) and symptom knowledge ( $t(832.87)=-9.29, p<.01$ ). Chi-square analyses exposed significant differences between groups regarding whether or not they had ever failed to report a suspected concussion ( $\chi^2=11.38, p<.01$ ), with male athletes failing to report suspected concussions more frequently than female athletes; these differences were found in practices ( $\chi^2=7.90, p=.02$ ) and games ( $\chi^2=14.32, p<.01$ ). A logistic regression assessed the predictive utility of total concussion knowledge, symptom knowledge, and sex on concussion reporting behaviors. While the full model was significant ( $\chi^2=28.28,$

p<0.01), Nagelkerke's R<sup>2</sup> of .063 indicates a very weak relationship with little clinical significance. Further, the Wald criterion demonstrated only sex made a significant contribution to the model (p<0.01).

Given the current findings, it is apparent that sex differences exist in concussion knowledge and reporting behaviors among collegiate athletes. However, concussion knowledge does not seem to be predictive of reporting behaviors, suggesting concussion education may not be enough to influence collegiate athletes' reporting of suspected concussions.

## LEC-15C

### THE EFFECTS OF PSYCHO-SOCIAL FACTORS ON PATIENT RECOVERY AND FUNCTIONAL OUTCOME FOLLOWING ANTERIOR CRUCIATE LIGAMENT SURGERY

*Tomos Williams, Cardiff Metropolitan University, UK;*  
*Lynne Evans, Cardiff Met University, UK;*  
*Angus Robertson, Cardiff Sports Orthopaedics, UK;*  
*Lew Hardy, Bangor University, UK;*  
*Stuart Roy, Cardiff Sports Orthopaedics, UK;*  
*Daniel Lewis, Cardiff Sports Orthopaedics, UK;*  
*Freya Glendinning, Bangor University, UK*

Alongside an increased incidence of sport-related injuries has been a growing recognition of the role that psychosocial variables play in injury recovery (Brewer, 2010). The majority of this understanding is based on two conceptual models: the integrated model of psychological response (Wiese-Bjornstal, Smith, Shaffer, & Morrey, 1998), and the biopsychosocial model of sports injury rehabilitation (Brewer, Andersen, & Van Raalte, 2002). Both models suggest the same personal, situational, cognitive, emotional, and behavioural variables associated with psychological responses also influence sports injury rehabilitation outcomes (Brewer & Cornelius, 2008). However, researchers have typically examined psychosocial factors and (i) psychological responses, or (ii) recovery outcomes, independently.

This study adopted a longitudinal, repeated-measures design, in which 72 patients undergoing anterior cruciate ligament (ACL) reconstruction completed measures of optimism, coping, and knee function pre-surgery; optimism, coping, appraisal, rehabilitation beliefs, and adherence ratings at five time-points post-surgery; and subjective ratings of knee function at 6, 12, and 24 months post-surgery. Latent growth curves and Bayesian structural equation models examined the longitudinal changes, and indirect relationships between these psychosocial factors, rehabilitation adherence, and functional outcomes.

Most notably, the results revealed dispositional optimism, efficacy (self- and treatment), and instrumental coping were significantly related to rehabilitation adherence and functional outcome at 12 and 24 months post-surgery. Further mediation analysis revealed higher optimism and efficacy were significantly related to secondary (as opposed to primary) cognitive appraisals, inferring a greater ability to cope with the injury, which resulted in more approach-focused (e.g., instrumental), and less avoidance-focused (e.g., palliative) coping strategies. The important implications of these findings for medical personnel working with injured athletes, and future research directions will be presented.

## LEC-15D

### THE CO-DEVELOPMENTAL DYNAMIC OF SPORT AND SCHOOL BURNOUT AMONG STUDENT-ATHLETES: THE ROLE OF ACHIEVEMENT GOALS

*Matilda Sorkkila, University of Jyväskylä, Finland;*  
*Kaisa Aunola, University of Jyväskylä, Finland;*  
*Katariina Salmela-Aro, University of Jyväskylä, Finland;*  
*Asko Tolvanen, University of Jyväskylä, Finland;*  
*Tatiana Ryba, University of Jyväskylä, Department of Psychology, Finland*

The pressure of striving for success in two parallel domains, sport and school, may set some student-athletes at risk for sport and school burnout. Nevertheless, the co-developmental dynamic of sport and school burnout symptoms, namely sport- or school-related exhaustion, cynicism and inadequacy has not been examined. Furthermore, it is unknown how achievement goals (performance or mastery-orientation) in one domain influence the development of burnout symptoms in another domain. This lecture will present a study, which investigated the co-developmental dynamic of sport and school burnout among Finnish adolescent student-athletes (N time 1 = 391; N time 2 = 373) across the first year of sport high school by using cross-lagged structural equation modeling (SEM). Furthermore, sport and school-related achievement goals were used as predictors of sport and school burnout. The results showed that burnout symptoms in a particular domain were relatively stable within the same domain during the school year. Moreover, school-related exhaustion at the beginning of the school year predicted sport-related exhaustion at the end. Mastery goals in sport and school were negatively associated with cynicism and feelings of inadequacy within the respective domain. Furthermore, performance goals in school were positively associated with school-related cynicism. Overall the results indicate that sport high schools and coaches should pay specific attention to student-athletes' symptoms of school exhaustion, as they may spill over to the sport domain. Furthermore, goals related to personal mastery and development should be emphasized. It will be discussed how these results can be used, for example, by healthcare professionals for detection and early prevention of student-athletes' burnout symptoms.

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## LEC-16: Research Design

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## LEC-16A

### SHORTENING THE RESEARCH-TO-PRACTICE GAP IN SPORT PSYCHOLOGY RESEARCH: A REPRESENTATIVE DESIGN APPROACH

*Frank Ely, California State University, East Bay, USA;*  
*Jenny O, California State University, East Bay, USA;*  
*Odyssey Tapia, California State University, East Bay, USA;*  
*Jennifer Huffman, California State University, East Bay, USA*

Consideration of the research-to-practice gap (i.e., wherein research findings are not implemented in real world contexts) has gained traction among clinical psychology researchers (e.g., Glasgow et al., 2012), however, similar attention is warranted within the field of sport psychology (e.g., Gould, 2016; Lawson, 1992). Recently, Gould discussed how many of the coaching challenges encountered in sport (e.g., motivating athletes, optimizing individual/team performance) can be

addressed using sport psychology research literature. If this is true, then why aren't more coaches using this information? One possible explanation is that sport psychology researchers are not incorporating adequate levels of real world constraints into their experimental designs, thus leaving their experiments highly contrived (e.g., Pinder et al., 2011). These constraints (e.g., time, resources, expertise, etc.) simulate the actual sport environment, however, are often overlooked when developing experimental methodology. Constructing an experimental setting that approximates the "real world" environment is known as representative design (RD; Brunswik, 1956; often referred to as "ecological validity"; Pinder et al.). It has been suggested that, to gain an accurate representation of the real world context, researchers should aim to strike a balance between experimental control and RD when creating methodological designs (e.g., Brewer, 2000; Schmuckler, 2001). In this presentation, we will discuss the importance of acknowledging the research-to-practice gap and the inclusion of RD-based methodology that simulates the environment in which athletes actually perform. Pilot data from a recent imagery intervention (wherein a high degree of RD was implemented into the experimental design) will be compared to data from comparable and previously-published imagery intervention research. Last, practical implications for real world athletes and practitioners interested in reducing the research-to-practice gap will be discussed.

## LEC-16B

### **COPING WITH ORGANIZATIONAL CHANGE IN SPORT: A PHENOMENOLOGICAL STUDY OF HIGH-PERFORMANCE COACHES**

*Shelby Carr, Sheffield Hallam University, UK;*  
*James Rumbold, Sheffield Hallam University, UK;*  
*Joanne Butt, Sheffield Hallam University, UK;*  
*Peter Olusoga, Sheffield Hallam University, UK*

The purpose of this study was to elicit high-performance coaches' experiences of coping with organizational change. Using maximum variation sampling (Langdrige, 2007), interviews (Mduration = 81.32 minutes, SD = 22.57 minutes) were conducted with 11 individuals (Mage = 50.10 years, SD = 7.62) who have coached sport performers at international, Olympic and/or professional level. Each coach provided detailed accounts of how they coped with varying organizational change initiatives that they had experienced (e.g., funding cuts, changes in leadership and management, competition structure and rule changes, staff turnover) whilst operating within elite and professional sport organizations. Descriptive phenomenological analysis procedures (Giorgi & Giorgi, 2008) were utilized to produce five essences, which defined the universal structure with which coaches were able to cope with organizational change. The main essences included: communication and consultation (e.g., participation in the change process), dissociation (e.g., deflecting attention away from decisions), empathic understanding and acceptance (e.g., accepting the need for change), optimism (e.g., adopting a positive outlook), and proactive behaviors (e.g., seeking support). Although the findings provide some support for existing literature on coping (e.g., Lazarus, 1999; Norris, Didymus, & Kaiseler, 2017), these essences carry holistic meaning beyond traditional abstractions of coping

experiences for elite and professional sport coaches. From an applied perspective, the findings highlight the need for coaches to carefully monitor their ability to cope with varying organizational change initiatives, and recognise the symptoms that may lead to reduced mental health and well-being. However, sport organizations must also accept some responsibility for protecting the well-being of coaches, as they have a duty of care to their employees (Dewe, O' Driscoll, & Cooper, 2010). Therefore, the importance of developing organizational-level resources alongside individual strategies is highlighted, to ensure the mental health and well-being of coaches during change initiatives.

## LEC-16C

### **CONDUCTING RESEARCH ON MINDFULNESS AND SPORT IN A UNIVERSITY SETTING: LESSONS LEARNED**

*Carol Glass, The Catholic University of America, USA;*  
*Timothy Pineau, Marymount University, USA;*  
*Keith Kaufman, Keith A. Kaufman, Ph.D., PLLC, USA;*  
*Thomas Minkler, Catholic University of America, USA*

As Sappington and Longshore (2015) concluded, more methodologically rigorous studies are needed on mindfulness-based interventions for sport. Kaufman, Glass, and Pineau (2018) concurred that such research was off to a promising start, but further work was needed to have a lasting impact on the field. The intent of this talk is to share lessons learned over the past 12 years from a program of research on mindful sport performance enhancement (MSPE). Both empirical findings and anecdotal evidence will inform a presentation of the real-world experience and results of conducting mindfulness research with college student-athletes, and is intended to help guide others with an interest in doing applied research in sport psychology.

Conducting intervention research with athletes presents unique challenges compared to studies of treatment efficacy/effectiveness using participants with psychological or physical disorders. A number of specific issues will be addressed, including the advantages and disadvantages of (1) conducting mindfulness training with intact teams vs. mixed-sport groups of athletes, (2) conducting research within a university athletics department vs. recruiting athletes from the community, (3) involving coaches (or not) as part of training programs for intact teams, (4) having a training facilitator who is embedded in the university (e.g., athletics department or counseling center staff) vs. a facilitator from outside the campus community, (5) conducting research during specific times in student-athletes' calendars (e.g., preseason, off-season, in-season, beginning/end of the semester), and (6) including control groups.

Each issue will be considered from both the perspective of implications for research design and for best practice in program delivery, with a focus on the success of the mindfulness training program as well as the feasibility of doing the study. Additionally, negotiating methodological issues with university Human Subjects committees will be discussed, and cautionary tales and specific suggestions for future research will be offered.

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**LEC-17: Professional Development, Supervision,  
and Mentoring**

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**LEC-17A****APPLIED SPORT PSYCHOLOGY SUPERVISION: A SURVEY OF STUDENTS AND PROFESSIONALS**

*Alessandro Quartiroli, University of Wisconsin - La Crosse, USA;  
Sae-Mi Lee, California State University, Chico, USA;  
Jack Watson II, West Virginia University, USA;  
Brandonn Harris, Georgia Southern University, USA;  
Ed Etzel, West Virginia University, USA;  
Robert Schinke, Laurentian University, Canada*

An abundance of literature has highlighted the importance of effective supervision in applied sport psychology (ASP) (Watson, McAlarnen, & Shannon, 2014) and the importance of the supervision relationship (Hutter, Oldenhof-Veldman, & Oudejans, 2014). For example, supervision has been reported to contribute to a variety of factors, such as supervisee's personal and professional development (e.g., Bernard & Goodyear, 2009), clients' welfare (Bernard & Goodyear, 2009), and the development of ethical and legal professional behaviors (Van Raalte & Andersen, 2000). Although supervision is an important aspect of ASP training and practice, scholars have pointed to the limited amount of research in this area (e.g., Castillo, 2014). The primary goal of this study was to obtain a current snapshot of the APS supervision practices of students and professionals. This study aimed to (1) explore who is being supervised for their work in ASP, (2) how often supervision takes place in their professional journey, and (3) examine differences in supervision received based on individual's training and professional background. A sample of sport psychology trainees and professionals (n=190) was surveyed about their experiences related to APS supervision, as part of a larger study. Results showed that, interestingly, only 35.6% of participants received supervision. Moreover, among those receiving supervision, the majority received supervision weekly (65.2%), while other engaged in monthly (11.6%) or bi-monthly (10.1%) supervision. Results also revealed that participants receiving formal supervision was significantly dependent on their status as a student versus professional ( $\chi^2=64.72$ ,  $p<.001$ ;  $\Phi=-.590$ ). However, receiving formal supervision was not found to be significantly dependent on the area of an individual's specialization, nor the area in which participants received their highest graduate degree. The study results will contribute to the training of future practitioners and support the practice of current professionals.

**LEC-17B****NAVIGATING THE SWAMPY LOWLANDS OF THE SUPERVISION OF NEOPHYTE PRACTITIONERS: COLLABORATIVE APPROACHES TO THE SUPERVISORY PROCESS**

*Brendan Cropley, University of South Wales, UK;  
Rich Neil, Cardiff Metropolitan University, UK;  
Sheldon Hanton, Cardiff Metropolitan University, UK*

Although a growing body of literature in the field of sport and exercise psychology (SEP) has considered the training and development of neophyte practitioners (e.g., Watson, McAlarnen, & Shannon, 2014), some authors have indicated that the examination of the mechanisms associated with

effective supervision is still in need of attention (e.g., Hutter, Oldenhof-Veldman, & Oudejans, 2015). Indeed, whilst the goals of supervision have been defined by those who govern professional qualifications in the field, the process of supervision and the roles of the supervisor are far less established. Consequently, this presentation will detail a case study of a bespoke collaborative approach to the supervision of neophyte sport and exercise scientists who are training to work in the field of SEP. The case study will present how a model of collaborative supervision can be used to: (a) enhance peer interaction; (b) support shared critical reflective practices; (c) provide a safe environment for disclosure; (d) augment the problem-solving and practice-based skills of trainee practitioners; and (e) facilitate a more rewarding learning and developmental experience. The case study will present feedback from both supervisors and supervisees in order to elicit the fundamental benefits of the collaborative approach, including the reciprocal nature of learning, whereby the supervisors were able to question and develop their own practice. Supervisee feedback details the importance of developing a social network, through collaborative supervision, of like-minded people who offer social and professional support during what is an intense period of training. Supervisees also commented on the value of the reciprocal approach to learning and the influence that shared reflection has had on their personal and professional growth. Indeed, the opportunity for shared reflection is seen as relatively unique due to the cultural and ethical issues associated with such practice outside of a formal collaborative environment.

**LEC-17C****ALL THE WORLD'S A STAGE: A NEOPHYTE SPORT PSYCHOLOGY CONSULTANT AS PERFORMER**

*Sarah Hudak, City Year, USA;  
Brian Gearity, University of Denver, USA*

In the field of sport and performance psychology (SPP), educators often present consulting as both an art and science (Poczwadowski, Sherman, & Henschen, 1998). However, in both the literature and in graduate curriculums and coursework, there appears to be a lack of representation regarding the art piece. Using a narrative psychology process (Clandinin & Connelly, 2000), the following study showed the experiences of a SPP graduate student and how her professional development as a sport psychology consultant (SPC) began to flourish after she started to view herself as a performer. Existing narrative psychology research posits that reflective practice enhances the professional development process because self-evaluation encourages exploration and informed questioning to describe one's experiences (Densten, & Gray, 2001). To make her reflections more tangible, the first author took the reflective process one step further, joining the literature of others who used their reflections as a vehicle for understanding the human experience of graduate training by creating a narrative (e.g., Gearity & Mertz, 2012; Holt & Streaun, 2001; Tonn & Harmison, 2004). This narrative tale, as part of an on-going memoir project, aims to bridge the gap between art and science by going deeper into the graduate student's experiences while threading it with the relevant literature (Andersen & Stevens, 2007). The narrative may also serve a pedagogical value in regards to the training of neophyte consultants. In this presentation, we will share a rich narrative "scene" from the study and will discuss the implications that the writing and revision process had on her development as a SPC, as well as the implications for scholarship and applied practice in sport psychology.

## **LEC-17D**

### **CURRENT AND FUTURE TRENDS IN THE DEVELOPMENT OF COMPETENT SPORT PSYCHOLOGY PROFESSIONALS**

*Janaina Lima Fogaca, University of Wisconsin-Green Bay, USA;*  
*Sam Zizzi, West Virginia University, USA;*  
*Jack Watson II, West Virginia University, USA*

Sport psychology supervisors have the responsibility of ensuring that novice practitioners are competent to deliver services. Tod (2007) suggested that to better prepare neophyte practitioners for practice we must understand their development. Knowing the main difficulties and needs of beginning practitioners would allow programs to tailor their training and supervision practices to meet students at the appropriate developmental level. Although past research has found similarities between counselors' development and sport psychology practitioners' development, these sport psychology students were also counseling students (Tod et al., 2009). The present study had the aim of exploring the development of five graduate students through their first year of applied sport psychology practice. Five graduate students in sport psychology (two PhD and three master students) aged between 23 and 28 years were interviewed before the beginning of their first practicum, after one semester of practice, and at the end of their first year of practice. Interviews focused on their perceptions of competence and development as sport psychology practitioners. They also

completed two journal entries in their first semester, and a consulting skills inventory. Inductive coding was used to develop a coding scheme after the first interview. This coding scheme was used for provisional coding in the journals and following interviews. Participants perceived development in their confidence, independence, and flexibility. They also reported improved knowledge of sport psychology practice, self-awareness, ability to set boundaries with clients, listening skills, and the ability to be present focused in session due to their cognitive flexibility. The presentation will compare and contrast differences in the content and timing of development in sport psychology practitioners compared to the published models in counseling psychology (i.e., Ronnestad & Skovholt, 2003; Stoltenberg & McNeil, 2010).



## PANELS

### PAN-01

#### **COLLABORATION, MENTORING AND PROFESSIONAL DEVELOPMENT FOR OLYMPIC SPORT PSYCHOLOGY CONSULTANTS**

*Karen Cogan, USOC, USA;*  
*Alexander Cohen, United States Olympic Committee, USA;*  
*Carlin Anderson, Premier Sport Psychology, PLLC, USA;*  
*Christopher Bader, University of Colorado-Boulder, USA;*  
*Sara Mitchell, United States Olympic Committee, USA;*  
*Jamie Shapiro, University of Denver, USA*

It is the dream of many sport psychology consultants (SPCs) to consult with Team USA athletes at the Olympic Games. Fortunately, many athletes and coaches now see the benefits of sport psychology and request these services. The USOC full-time sport psychology staff provides services to many Olympic teams and has also developed relationships with other SPCs to contract with individual sports, thus providing a tremendous opportunity for SPCs desiring Olympic involvement. It is necessary for the contract SPCs to develop strong relationships with athletes and coaches early in the Olympic Quad that carry through to the Olympic Games. In the current model, the SPC is mentored by the full-time USOC sport psychologist assigned to that sport. This panel discussion will focus on the mentoring and collaboration that has been created through the process of integrating contractor SPCs with the USOC Sport Psychology Team. The panel will consist of 3 dyads with each dyad composed of one USOC full time staff and one contracted SPC. Each dyad will respond to a series of questions that explore the nature of the consulting relationship with their teams, the coordination between the two professionals, and accomplishments and challenges with each team. The Winter Sports Dyads will present examples and lessons learned from the PyeongChang Olympic Games; the Summer Sports Dyad will present plans for working toward Tokyo and how they are integrating valuable lessons from past Olympic Games. Finally, professional development and mentoring issues related to being a first-time SPC during the Olympic Games will be outlined and examined.

### PAN-02

#### **INTEGRATING SPORT PSYCHOLOGY INTO MILITARY COMPETITION TEAM TRAINING**

*Justin Foster, The Excelling Edge, USA;*  
*Brett Sandwick, Elite Mentality, USA;*  
*Steven Cohen, Comprehensive Soldier and Family Fitness (CSF2), USA;*  
*Adam Skoranski, DCS, USA;*  
*Brad Baumgardner, AFSC, USA*

Each year the top Soldiers in the U.S. Army gather to test themselves and compete in a variety of elite competitions amongst their peers. These competitions include the Best Sniper, Best Medic, All Army Combatives, Best Ranger, and Best Scout Team, to name a few. Over the course of the competition one to six-person teams are tested on their physical, technical, and tactical expertise under adverse conditions often spanning 24-72 consecutive hours. The role mental toughness plays in success and failure at these competitions is significant.

Many similarities exist between sport psychology professionals integrating into the tactical training environment and those professionals supporting athletic teams. However, there are also key differences in the following areas (a) gaining entry and interest in incorporating mental skills training into the compact training schedules of tactical competitors, (b) defining roles, boundaries, and ethical guidelines, (c) developing a comprehensive mental skills training plan that tailors the mental skills and concepts to the distinctive demands of each competition (Murphy & Murphy, 1992), (d) the impact recovery and the lack of programmed sleep has on performance (e) the critical role observation (Holder, Winter, & Orr, 2018) and assessment (Chow & Gilsen, 2018) play within the training process, and (f) navigating changes in team dynamics and structure unique to the military (i.e. members being reassigned to another unit, disciplinary issues, members pulled from competition to fill other duties).

The panelists' cumulative experience training performance psychology in tactical populations totals over 20 years. During the panel each practitioner will share his experiences, challenges, and lessons learned from working with military competition teams. Attendees will have the opportunity to ask the panelists questions as they share insights and recommendations for working with tactical competitors and/or similar populations.

### PAN-03

#### **TECHNOLOGY FOR ASSESSING AND OR TRAINING PERCEPTUAL-COGNITIVE ABILITIES IN ATHLETES**

*Leonard Zaichkowsky, Private Practice, USA;*  
*Scott Goldman, University of Michigan, USA;*  
*Melissa Hunfalvay, RightEye, LLC, USA;*  
*Vincent Lodato, National Sports Performance Institute, USA*

In this panel, four sport psychology consultants, with a long history of using state of the art technology in their consulting work with Professional, Olympic, Collegiate, and youth athletes discuss their use of technology. Reference will be made to scientifically validated hardware, and software apps to assess and or train important perceptual-cognitive abilities. The moderator of the panel and first speaker will discuss how the research validated method of "visual temporal occlusion" is being used for assessing and training pitch recognition in baseball and softball, as well as in other fast action sports where rapid, accurate decision-making is critical. Other "brain training" technologies currently available on the market will also be briefly presented. The second panel member will discuss the neurocognitive research that led to the development of a tablet based method of measuring critical cognitive/executive functions of athletes. This validated mental analytics tool is currently being used by NFL, NHL, NBA, MLS, and Olympic training facilities for talent evaluation, improving athlete performance and coaching as well as developing player cognitive profiles. The third member of the panel will discuss how 40 plus years of eye-tracking research has led to the development of an innovative, portable technology platform to assess visual health critical to everyday life and successful athletic performance. This technology has achieved rapid success across most professional sports organizations in North America. The fourth member of the panel, employed in major league baseball and also working in private practice will discuss the use of "brain training" technology that is used at athlete training facilities, and at home by athletes with portable devices. A major focus of this presentation will be on the use of a multiple object tracking device (MOT) for training focus of attention and to teach the transfer of sport specific mental skills.

## PAN-04

### FROM THE PONDS TO THE NHL: CONSULTANT EXPERIENCES OF WORKING WITH HOCKEY PLAYERS FROM ELITE JUNIOR TO PROFESSIONAL LEVELS IN THE UNITED STATES AND CANADA

*Stephen Gonzalez, The College at Brockport, State University of New York, USA;*  
*Aimee Kimball, KPEX Consulting, USA;*  
*Ashwin Patel, Humber College, Canada;*  
*Adam Naylor, Boston University/Telos SPC, USA;*  
*John Stevenson, Zone Performance Psychology, Canada*

Ice hockey is a highly popular sport in North America, with Hockey Canada reporting 631,295 and USA Hockey reporting 555,935 players in 2016-2017. Additionally, when examining youth sport participation rates, ice hockey is poised to be one of the most popular sport choices for children in the USA and Canada. For example, ice hockey participation increased 44% in the United States alone from 2009-2014 at a time when overall youth participation was down nine percent (SFIA, 2017). With this increase in popularity, it would be advantageous for sport psychology practitioners to better understand the mental and physical demands of the sport, the structure of leagues, and the psychological needs of players and coaches. The purpose of this panel is to have well-established sport psychology practitioners discuss their role in the development of ice hockey players from elite junior hockey, collegiate hockey, and professional hockey. Panel members include university professors with experiences ranging from five years to over a decade of providing mental training services to junior (OHL/WHL) and collegiate (NCAA Divisions I and III) and private practitioners who have worked with NHL and AHL players for more than a decade. This panel will discuss entry into the sport, educational needs and demands, roles within a team, and typical evidence-based interventions employed. Finally, panelists will discuss how to integrate sport psychology into high performance cultures such as working with strength and conditioning and sports medicine personnel. Participants will leave with a greater understanding of the culture of ice hockey and opportunities to provide sport psychology and mental training services at a variety of levels.

## PAN-05

### SMOCKS AND JOCKS: INCORPORATING THE SCIENTIST-PRACTITIONER MODEL IN APPLIED SPORT PSYCHOLOGY RESEARCH AND PRACTICE

*Erin Reifsteck, University of North Carolina at Greensboro, USA;*  
*Mustafa Sarkar, Nottingham Trent University, UK;*  
*Kimberly Fasczewski, Appalachian State University, USA;*  
*Peter Olusoga, Sheffield Hallam University, UK;*  
*Nick Galli, University of Utah, USA;*  
*Moe Machida-Kosuga, Osaka University of Health and Sport Sciences, Japan;*  
*Diane Gill, UNCG, USA*

Despite Kurt Lewin's long-ago proclamation that "there's nothing so practical as a good theory" (Lewin, 1951) as well as calls for sport psychology researchers to adopt a more applied framework (e.g., Martens, 1979; Vealey, 2006), a concerning disconnect between research and practice remains in the field of applied sport psychology today. The scientist-practitioner model, which is advocated by the Association for Applied Sport Psychology, offers an opportunity to overcome the research-practice divide by emphasizing the reciprocal

relationships among theory, research, and practice. In this ideal approach, applied practice is evidence-based and supported by a theoretical framework, while theory-driven research is both informed by and clearly connected to important issues of professional practice. In this panel, applied researchers representing both US and international perspectives discuss how they've swapped their "smocks for jocks" (Martens, 1979) in their work to better reflect the scientist-practitioner model. Panelists will explain how they have incorporated theoretical frameworks and translated current research findings in their applied work, including developing a program that helps athletes make healthy transitions out of sport; using relevant theories and research to foster resilience in elite sport; developing theory-informed coach well-being programs; and incorporating interdisciplinary, evidence-based strategies to promote physical activity and quality of life in clinical populations. The panelists will also review lessons learned in practice that have informed their research approaches and directions, such as recognizing a need for novel research methods and culturally-relevant measures, identifying new research questions based on applied experiences, including participant voices in the research process, and tailoring theories and research findings to individual contexts. Panelists will discuss the benefits and challenges of implementing the scientist-practitioner model, and offer strategies from their own experiences to successfully bridge the gap between research and practice in applied sport psychology.

## PAN-06

### SERVING THE SPIRIT IN APPLIED SPORT AND EXERCISE PSYCHOLOGY SETTINGS - BEYOND THE 'PERFORMANCE OR CARE' DEBATE: AN INTERDISCIPLINARY PANEL OF SPORT PSYCHOLOGY AND SPORT CHAPLAIN PRACTITIONERS

*Robert Owens, University of Western States, USA;*  
*Christopher Stanley, Florida State University, USA;*  
*Kensa Gunter, Gunter Psychological Services, LLC, USA;*  
*Leslee Fisher, University of Tennessee, USA;*  
*David Wells, Director of Sports Chaplaincy Canada;*  
*Sarah Bonikowsky-Chaudhery, VHA Rehab Solutions – former Olympian, Canada;*  
*Greg Bailey, Retired Military Chaplain, Canada;*  
*Imam Imran Ally, Police Chaplain, Peel Police, Canada*

An athlete's theological perspectives and spiritual beliefs may impact motivation, views on success and failure, leadership and communication styles, and regulatory strategies to name a few (Watson & Nesti, 2005). Accordingly, the call for applied sport psychology (SP) consultants to become culturally reflective practitioners (Schinke and Hanrahan, 2009) illustrates the need to consider spirituality as a component of the athlete's identity in applied settings (Egli & Fisher, 2016; Sarkar, Hill & Parker, 2015). Conceptualizing diversity without a full consideration of how spirituality impacts the athlete's worldview and overall well-being might negatively impact client-consultant relationship (Watson & Nesti, 2005). In competitive athletic cultures where the sport chaplain is responsible for the spiritual and pastoral care of the athlete and the SP consultant is accountable for maximizing performance, collaboration between chaplain and consultant is needed to ensure the athlete's needs are being met holistically (Gambles, Hill & Parker, 2013; Nesti, 2016).

In this panel, four sport chaplains will share their experiences working with elite athletes. The panel will be composed of a director of sports chaplaincy who has served for the Summer

and Winter Olympic Games, the Commonwealth Games, and the Invictus Games, a former Olympic rower who has served as a chaplain for the Pan American Games and the Parapan American Games, a chaplain with a background in military chaplaincy, post-traumatic growth and moral injury, and a police chaplain of Muslim faith who can provide insights on working with tactical populations. The panel will be moderated by SP consultants committed to diversity and inclusion within applied sport psychology settings. After the panelists have shared their experiences, the moderators will lead the panel and the audience in a discussion on how consultants and sport chaplains can create alliances to attend to athletes' religious and spiritual identities.

## PAN-07

### SET FEES WITH EASE: EXPLORING THE PROCESS

*Tim Herzog, Reaching Ahead Counseling and Mental Performance, USA;*

*Jim Taylor, Dr. Jim Taylor, USA;*

*Kaimare Laird, The Performance Pursuit, USA*

While graduate programs do prepare their students well to do the work of sport psychology, they often do not prepare them to do the business of sport psychology. In running a consultancy you must determine your needs in earning a sustainable living, and understand what and how to charge for consulting services and speaking engagements. This panel will explore these potentially confusing and intimidating issues. More specifically, topics will include: 1) methods for determining how much you need to earn to support yourself (and perhaps a family); 2) strategies for figuring out how much to charge for consulting services and speaking events; and 3) processes for appraising the value of what you will provide to the client for your fees (Mompalmer, Carmona, & Lassala, 2015; Taylor & Herzog, 2014). The panel presentation will also illuminate self-defeating appraisals common among new practitioners, such as over-confidence, limited diversification in roles/clientele, and under-valuing of services. Strategies for avoiding these pitfalls will be discussed. The three presenters, one each at an early, middle, and later stage of their careers, respectively, will share their insights into these topics and describe the fee structures that they use and how they arrived at them. The panel presentation will use a variety of didactic methods including lecture, Q&A, and case examples from the presenters' own consulting and speaking experiences. An emphasis of the panel will be to draw on the collective knowledge and experiences of the participants to provide them with tangible guidance on establishing reasonable income goals and consulting and speaking fees. At the conclusion of the panel, attendees will receive detailed (digital) handouts of the topics that were discussed.

## PAN-08

### IMMERSIVE TEAMBUILDING: FROM ACTIVITIES TO ACTION

*Shawn Zeplin, Auburn University, USA;*

*Cody Commander, University of Oklahoma Athletics Dept, USA;*

*Brett Haskell, University of Nebraska Athletics, USA*

Cultivating team mental fortitude is a complex and multi-layered endeavor for coaches and athletes. Fletcher and Sarkar (2016) propose that developing psychological resilience in teams requires systematically addressing the personal qualities of

the athletes, creating a facilitative environment (coach/staff behaviors), and training a challenge mindset within the team. Likewise, Poczwardowski and Sherman (2011) emphasize that sport psychologist immersion into the team culture is critical in providing effective interventions.

The constant personnel changes within collegiate athletic teams exacerbate the challenges in building a resilient, flexible, and mentally tough team culture. Immersive team building interventions aimed at increasing the relationships within the team can mitigate some of the issues that arise with constant turnover.

While many teambuilding interventions focus on activities that target athletes rather than the "system," this presentation will focus on examples of full immersion teambuilding and mental skills training within three different NCAA, power five, and collegiate sport environments.

The first panelist will discuss a case with a team sport that explores a three year progressive intervention beginning with relationship building/improving member self-awareness to a paradigm shift that anchored all mental skills and team behaviors.

The second panelist will discuss a case with an individual sport that involves a two year planning and learning phase followed by greater integration with coaches and support staff to alter the overall training and competitive seasons.

The third panelist will discuss his role in providing teambuilding interventions with Sport Administrators and student-athletes, in attempts to further develop cohesion within the athletics department. Discussions will include how to assess for participant needs, how to develop appropriate interventions, and how it was facilitated.

## PAN-09

### WHERE OUR FEET WERE: PROFESSIONAL REFLECTIONS OF EXPERIENCES BEFORE THE "DREAM JOB"

*Chelsea Wooding, National University, USA;*

*Cecilia Clark, Cleveland Indians, USA;*

*Nohelani Lawrence, University of Southern California, USA;*

*Angus Mugford, Toronto Blue Jays, USA*

When asked about career goals, 72% of graduate sport psychology students reported wanting to work with collegiate athletes, and 48% with professional athletes (Fitzpatrick et al., 2016). Although these are admirable goals, research shows that there are myriad difficulties finding consulting opportunities at elite levels (e.g., Andersen et al., 1997). Neophyte practitioners might be well-served by learning the value of fully investing in their early career experiences, using work in youth and recreational sport, or obtaining specialized training outside of sport, as an opportunity to grow into a quality practitioner.

One strategy early career professionals may utilize is developing appreciation for the present moment. The mindful practice of "being where your feet are" encourages a focus on the present moment, rather than dwelling on what was or will be. Research has shown that "when acting mindfully, individuals are acting in ways that are concordant with values and interests" (Brown & Ryan, 2003). Other benefits of a present focus include increased creativity and openness

(Edberg, 2008), increased productivity and problem-solving (Arnold, 2017), and improved well-being (Carmody & Baer, 2008). Given the benefits of a present focus, helping attendees be present with current consulting opportunities would be beneficial for them as practitioners and for their clients.

This panel discussion will highlight early career experiences of three consultants who have since earned the “dream job,” working with professional, Olympic, and elite level collegiate athletes. Through reflective practice (e.g., Schön, 1987), practitioners will discuss the jobs held before obtaining “sexier” positions, realities of those positions, and strategies used in those “mainstream” type consulting roles. Reflecting on previous experiences is valuable for professional development (Ferraro, 2000), and the goal of this panel is for attendees to learn more about the realities of consulting, rather than only work being done in limited “dream” positions.

## PAN-10

### INTEGRATING APPLIED SPORT PSYCHOLOGY INTO COLLEGIATE ATHLETICS: LESSONS LEARNED AND FUTURE DIRECTIONS

*Brian Zuleger, Adams State University, USA;*  
*Scotta Morton, University of Missouri, USA;*  
*Jeff Coleman, West Point, USA;*  
*Vanessa Shannon, University of Louisville Athletics/Norton Sports Health, USA;*  
*Katherine McLean, University of Notre Dame, USA;*  
*Nathaniel Zinsser, United States Military, USA Academy*

Reflecting on professional practice is an important aspect of professional development for applied sport psychology consultants (Knowles, Katz, & Gilbourne, 2012; Tod, Andersen, & Marchant, 2011). This panel will consist of professionals in applied sport psychology who are working in collegiate athletics. Research supports the need for applied sport psychology (performance related) services in collegiate athletics (Connole, Watson, Shannon, Wrisberg, Etzel & Schimmel, 2014; Kornspan & Duve, 2006; Wilson, Gilbert, Gilbert & Sailor, 2009; Wrisberg, Withycombe, Simpson, Loberg & Reed, 2012). The presenters will discuss their individual roles within NCAA DI and DII programs and focus on lessons learned and future directions. The purpose of this panel is to provide an opportunity to share lessons from our experiences working in applied sport psychology positions that may allow students, early career professionals, professionals and educators/mentors of students to gain perspective and insights to consider when preparing for similar roles. Panelists will discuss topics consisting of: best practices such as understanding athletes (Martin, 2005; Massey, Gnacinski & Meyer, 2015) integrating services such as athletic training (Zakrajsek, Martin & Wrisberg, 2016), working with administration (Connole et al., 2014; Kornspan & Duve, 2006; Wilson et al., 2009; Wrisberg et al., 2012), how to gain entry to build or maintain a program in collegiate athletics, and future directions. A moderator who is experienced and accomplished in the field of applied sport psychology as a leader of an applied sport psychology program in collegiate athletics will frame and summarize the panel discussion around the above mentioned topics. The panel plans to take questions from the audience throughout the discussion to allow for maximum audience participation.

## PAN-11

### WHAT GRAD SCHOOL COULDN'T TEACH ME – MAKING THE TRANSITION FROM STUDENT TO AN EARLY CAREER PROFESSIONAL

*Mark Aoyagi, University of Denver, USA;*  
*Jessica Bartley, University of Denver, USA;*  
*Nicholas Bartley, IMG (A)cademy - USASOC, USA;*  
*Nohelani Lawrence, University of Southern California, USA;*  
*Shawn Zeplin, Auburn University, USA*

For many, graduate school can be a time of immense learning and personal growth. Graduate programs can provide an optimal learning environment through challenging courses mixed with applied learning at practicum sites. The result can leave recent graduates feeling as though they are well prepared for professional life within the field of sport and performance psychology. Recent reviews of graduate school competency models, however, show that trainees will experience limitations when beginning their mental performance consultant careers (Aoyagi, Portenga, Poczwardowski, Cohen, & Statler, 2012; Portenga, 2014). Training and developmental limitations can include, but are not limited to, creating a professional identity, professional practices such as hiring, handling conflicts, program development, establishing consultations, and administration politics within an academic or athletic arena (Fletcher & Maher, 2013).

A panel of early career certified mental performance consultants defined as graduating within 7 years from a Masters or Doctoral program, will speak about their transitions from graduate students to early career professionals. The panel members represent several different career paths: developing a sport psychology program within a Division I athletic department, a faculty member in a sport and performance psychology graduate program, working within a military setting, and a consultant for a USA national sporting body. The panel will be moderated by a mid-career professional who will ask questions focused on tips each panelist can provide graduate students and early career professionals for smoother transitions and successful launching of careers.

## PAN-12

### ADDRESSING STIGMA IN SPORT FOR THE COLLEGE ATHLETE: A MULTICULTURAL LENS

*Michele Mahr, California State University-Sacramento, USA;*  
*Lindsey Greviskes, University of Wisconsin-Whitewater, USA;*  
*Alina Cisneros, Piece of Mind: Peak Performance Consulting Sport, USA*

The purpose of this presentation is to discuss how athletes of minority populations can overcome negative stereotypes and challenges ignited by society's definition of the college athlete. It is our responsibility as coaches, educators, athletic trainers, psychologists and other athletic administration to create an equal platform for all college athletes to have opportunities in sport. Research has indicated that social support, positive self-identity and providing a safe environment for individuals to embrace their true identity may lead to maximizing athletic performance, increase self-efficacy, teamwork building and personal growth as an athlete. There are several psychological benefits related to sports, regardless of cultural differences. Regarding classical sociological theory, Henricks (2006) notes that sport is often said to foster many of the following values, independent of gender: self-discipline, diligence, obedience

to (moral) authority, and collective responsibility (Kaufmann & Wolff, 2010). However, often the student athlete of color is crippled by the societal influence of public stigma and self-stigma based on race, gender, sexual orientation, disability, culture, and ethnic background.

The overall goals of this panel discussion are the following: state a brief history of why multiculturalism in college sport is important to acknowledge, discuss the psychological challenges that minority athletes often face such as lack of resources, social identity, objectivity, micro aggressions, cultural humility and conclude with how the power of societal influences may impact the performance of the athlete in competitive sport. Furthermore, the implementation of specific techniques and principles based on the biopsychosocial model will be provided to the audience as potential effective tools to balance cultural self-identity with athletic talent. This panel discussion will include a thorough examination of the challenges and benefits through a multiculturalism lens. Each panel member will address each goal and facilitate a interactive discussion.

### PAN-13

#### **INCLUSIVITY FOR LGBTQ+ ATHLETES: THE IMPORTANCE AND IMPACT OF DIRECT EQUITY INITIATIVES IN SPORT CONTEXTS**

*Caroline Fusco, University of Toronto, Canada;*  
*Ali Greey, University of Toronto, Canada;*  
*Meghan Halbrook, Randolph College, USA;*  
*Leslie Larsen, California State University- Sacramento, USA;*  
*Christopher Stanley, Florida State University, USA*

There is a critical need to demonstrate support and inclusive strategies for LGBTQ+ athletes (e.g., Barber & Krane, 2013). To illustrate, the NCAA has offered a statement of support, recommendations for creating positive climates, and associated educational resources for athletes, coaches, and administrators. Sport psychology (SP) professionals should be equipped to offer support as well. This panel will examine inclusive approaches and practices with LGBTQ+ athletes, how social exclusions and direct equity initiatives impact the mental health of LGBTQ+ athletes, and best practices in creating inclusive environments. Of particular note will be a discussion of The Change Room Project, an initiative specifically designed to build awareness of the experiences of LGBTQ+ students in athletic and recreational spaces.

This panel consists of five professionals with key perspectives on these issues. One panelist is a social scientist whose research formed the basis of The Change Room Project. The second panelist is a graduate student researcher at the same institution who hopes to assess the impact of such initiatives for LGBTQ+ populations. The third panelist is a member of the AASP Diversity Committee, has extensive applied experience, research in physical education settings, and can speak expertly to social justice and inclusion issues. The fourth panelist has a clinical background and will speak to how exclusion and direct equity initiatives impact the mental health of LGBTQ+ athletes. The fifth panelist has a background in human development, works in numerous applied contexts, and will serve as moderator. Three of the five panelists are CMPCs.

Panelists will share knowledge and experiences as SP practitioners and researchers to highlight the need for inclusive practices, as well as strategies to create and foster inclusive environments, including locker room and team contexts. Audience members will have opportunity to interact with the panelists.

### PAN-14

#### **SPORT PSYCHOLOGY SERVICES AT THE PARALYMPIC GAMES IN PYEONGCHANG, SOUTH KOREA**

*Jamie Shapiro, University of Denver, USA;*  
*Yongchul Chung, Sogang University, South Korea;*  
*Kristine Dun, Australian Institute of Sport, Australia;*  
*Christian Heiss, Performance Entwicklung, Germany;*  
*Sara Mitchell, United States Olympic Committee, USA*

The Paralympic Games is an elite level sporting event that takes place once every four years. At the 2018 Paralympic Games in Pyeongchang, South Korea, over 600 athletes who have physical disabilities competed in six sports (alpine skiing, biathlon, cross-country skiing, ice hockey, snowboard, and wheelchair curling). The interest in developing a body of knowledge about athletes with disabilities is relatively new (within the past 20-25 years; Martin, 2017; Martin & Wheeler, 2011), and interest in applied sport psychology practice with this population has followed. It is exciting to see that many countries are increasing sport psychology support to Paralympic athletes. For example, the United States Olympic Committee sent three sport psychology professionals to the Games in Pyeongchang compared to none in Sochi in 2014. While much of the literature has found that athletes with disabilities are similar to able-bodied athletes in terms of psychosocial variables and ability to learn and implement psychological skills training (Dieffenbach & Statler, 2012; Martin, 2017), there are also unique aspects of working with this population (Haberl, 2006; Hanrahan, 2015).

This panel will consist of five professionals (including the moderator) from around the world (Australia, Germany, South Korea, USA) who provided sport psychology services to teams and athletes at the Paralympic Games in Pyeongchang. Panelists will discuss their work with athletes leading up to and during the Games. Panelists will share how they gained entry with organizations and athletes, common presenting concerns among teams and athletes, and interventions that were implemented. Panelists will reflect on their experience at the Games, including highlights, challenges, and lessons learned. Recommendations will be provided for future Paralympic Games consultants and those who might provide sport psychology services at similar sporting events.

## PAN-15

### **METACOGNITION AS AN INTERNAL MECHANISM OF ATHLETES' GROWTH FOLLOWING ADVERSITIES: FOUR CASE STUDIES**

*Malgorzata Siekanska, The University of Physical Education in Krakow, Poland;*

*Artur Poczwadowski, University of Denver, USA;*

*Richard Gordin, Utah State University, USA;*

*Jan Blecharz, Department of Psychology, Faculty of Physical Education and Sport, University of Physical Education in Cracow, Poland;*

*Leanne Kack, Florida State University, USA*

Reaching expert performance level in sport is a long-drawn-out process and is based on focused, conscious, and systematic (deliberate) practice (Ericsson, Krampe, & Tesch-Römer, 1993). Additionally, expertise development is seldom linear, but rather context dependent and highly individual. The stages of relative stabilization and balance are interspersed by crises and circumstances, which may have a significant effect on the course of an athletic career and could include premature discontinuation (e.g., Stambulova, 1994; Siekańska, 2013). On the other hand, the notion that athletes have the potential to benefit from challenges and adversities has recently received increasing attention (e.g., Fletcher et al., 2017). From an applied perspective, case studies are particularly well positioned to address such idiosyncrasies as essential features of individual paths to excellence (see the recently established journal: *Case Studies in Sport and Exercise Psychology [CSSEP]*; Cottterill, Schinke, & Thelwell, 2016). The purpose of this panel is to provide the participants with four case studies that illustrate athletes' adversity-related experiences and growth-promoting insights and actions. The panelists will feature: (1) challenges faced by a self-taught niche water sport world champion), (2) fear of reinjury prior to Winter Olympic Games experienced by an Olympic athlete, (3) an injury incurred by a speedway rider during a competition, and (4) challenges in health and well-being of a female winter sport athlete following her sport retirement. The internal mechanisms of athletes' growth will be grouped as follows: (a) knowledge about oneself (person variables); (b) knowledge about task and its cognitive demands (task variables); and (c) knowledge about cognitive strategies (including meta-cognition) for enhancing learning and performance (strategy variables). The panel will also address professional practice challenges and implications in providing services to high level athletes (e.g., developing athlete knowledge about major psychological mechanisms and metacognitive strategies involved in the growth process).

## PAN-16

### **TRANSITIONING TO A MEANINGFUL LIFE**

*Judy Goss, Mental Performance Consultant, Canada;*

*Rolf Wagschal, Canadian Sport Institute Ontario, Canada;*

*Martha McCabe, Head to Head, Canada;*

*Adrienne Leslie-Toogood, CSCM, Canada;*

*Chantal Van Landeghem, University of Georgia, Georgia*

High-performance athletes face a unique obstacle upon retiring, in part due to the nature of elite sport and its requirement of complete physical and emotional commitment (Crook &

Robertson, 1991). Due to changes in social and professional "points of reference," athletes may experience identity crisis, emotional difficulties, and/or decreased self-confidence and life satisfaction upon retiring (Fernandez et. al, 2006). Research has shown that the transition out of high performance sport is influenced by a variety of psychological factors, including the voluntariness of the retirement decision (e.g., Cecić et al, 2004), the presence of identity issues (eg. Lally, 2007), and the degree of life skill development the individual possesses (e.g., Kadlcik & Flemr, 2008). Confirming the need for life skills outside of sport, it is necessary to improve life-sport balance and post-sport career planning to optimize sport performance. Clearly, the issue of retirement and post-sport planning is a huge part of every athlete's transition out of sport.

In this panel, three previous national team athletes and two practitioners will share aspects of their journey and consulting experience. The panelists will include two 2016 Olympians who will share their encounters with retirement and how they are helping retired athletes ease this transition. Game Plan, a total athlete wellness Canadian program will be described. This will include the various issues presented by athletes, as well as unique work challenges and tasks required. Other panelists will share specific strategies to manage sport demands and engage coaches. A discussion of how the sport system itself can create obstacles for athletes preparing for retirement, including full-time training, limited off-season, extensive travel, and coaches, will be explored. Panelists will share their experiences with retirement and in working with retired athletes, and make recommendations for consultants working with athletes nearing retirement and/or athletes who are recently retired.

## PAN-17

### **MENTAL HEALTH AND PROFESSIONAL ATHLETES: PERSPECTIVES, PROGRAMS, AND PRACTICES**

*Charles Maher, Cleveland Indians, USA;*

*Chris Carr, St. Vincent Sports Performance, USA;*

*Scott Goldman, University of Michigan, USA;*

*Kensa Gunter, Gunter Psychological Services, LLC, USA;*

*Dwight Hollier, National Football League, USA;*

*Wendy Borlabi, Chicago Bulls, USA*

Professional sports reflect an admixture of business sentiments, player development, culture, ethnicity, ambiguity, winning, travel, and expectations. Within this context, it is not surprising that professional athletes are at substantial risk--mentally and emotionally--- when coping with the demands of their work. The members of this panel possess many years of experience working with professional athletes, teams, and organizations with respect to mental health. Panelists will share their perspectives about mental health and professional athletes by means of several questions: (1) What are priority mental health needs of professional athletes; (2) How can mental health needs of professional athletes be meaningfully addressed at individual, team, and organizational levels; (3) What is the readiness of professional sports organizations for mental health services; (4) How can mental health and mental skills services be effectively coordinated; and (5) What are implications for training and practice in applied sport psychology? Ample time will be dedicated for questions and comments from those in attendance.

**PAN-18****INTERDISCIPLINARY MODEL FOR SPORT PERFORMANCE OPTIMIZATION**

*Brett Woods, University of Nebraska Athletics, USA;*  
*Brett Haskell, University of Nebraska Athletics, USA;*  
*Todd Stull, International Society for Sport Psychiatry, USA;*  
*Chris Bach, American College of Sports Medicine, USA*

The biopsychosocial model of performance enhancement has long been heralded as the gold standard in optimal performance training (Borrell-Carrio, Suchman, & Epstein, 2004). Unfortunately, outside of Olympic and professional sport settings, practitioners often work from siloed approaches due to limited resources, time, or lack of access to complementary sport science experts. With decades of convincing empirical evidence for the mind-body connection, professionals in sport psychology will benefit from interdisciplinary collaboration with physiologists, motor behavior specialists, physicians, engineers, cognitive and developmental psychologists, athletic trainers, strength and conditioning specialists, and sports nutritionists (Burwitz, Moore, & Wilkinson, 1994). Likewise, advances in data collection methods, biomarker monitoring, and physical assessments enhance the efficacy of medical, behavioral, nutritional, and mental and physical training interventions that can be offered by a multidisciplinary sports performance team.

The aim of this presentation is to describe a collaborative, interdisciplinary research-to-practice model for facilitating the physical, psychosocial, nutritional, and training needs of collegiate student-athletes. Housed in an NCAA Division I university sport performance laboratory, the members of the interdisciplinary team will discuss their methodology for collecting and implementing data on biomarkers (cortisol testing, actigraphy watches), physical assessments (reaction time, GPS movement tracking, sport-specific athletic skills), nutritional and body measurements (IDXA scanner), and psycho-emotional indices (brief wellness questionnaire). The multi-method approach to performance optimization combines data synthesis, expert evaluation, and planning to address fatigue, sleep disturbances, nutrition, and overtraining. Finally, the team will discuss how the research informs and fine tunes the behavioral interventions on topics such as sleep hygiene, fatigue management, nutrition, and mental skills training.

The purpose of the interdisciplinary, biopsychosocial model is twofold: (1) to facilitate early identification of fatigue, distress, and overtraining that will prohibit optimal cognitive, emotional, and physical functioning, and (2) to implement behavioral interventions that will promote individual and team mental and physical excellence.

**PAN-19****A GROUNDED THEORY APPROACH TO APPLIED SPORT PSYCHOLOGY CONSULTATION: THE CASE CONCEPTUALIZATION OF A NATIONAL COLLEGIATE ATHLETICS ASSOCIATION WOMEN'S DIVISION I VOLLEYBALL TEAM**

*Ken Ildefonso, University of Wisconsin-Milwaukee, USA;*  
*Joana Bielefeld, University of Wisconsin-Milwaukee, USA;*  
*Jeremy Gorgas, University of Wisconsin-Milwaukee, USA;*  
*Monna Arvinen-Barrow, University of Wisconsin - Milwaukee, USA;*  
*Barbara Meyer, University of Wisconsin-Milwaukee, USA*

The purpose of this presentation is to share the field experiences of three student sport psychology consultants (SSPCs) enrolled in a graduate applied sport psychology course. The SSPCs aimed to develop a client-specific, evidence-based psychological performance enhancement plan. Overseen by their CMPC faculty mentor, the SSPCs consulted with a National Collegiate Athletics Association Division I women's volleyball team. To assess client needs, the SSPCs followed qualitative case study (Creswell & Poth, 2018), ethnographic (Campbell & Lassiter, 2015), and Grounded Theory (Charmaz, 2014) frameworks. Coaches were interviewed first, with ongoing purposive data collection (i.e., observations, unstructured and semi-structured interviews) occurring with various members of the organization (e.g., coaches, athletic trainer, team captains). Interviews were transcribed and subsequently assessed for open, axial, and selective codes (Glaser & Strauss, 1967). A constant comparative method of analysis allowed for data comparison and directed conceptual assessment (Creswell & Poth, 2018). Results revealed four collective psychosocial factors important to the team's athletic performance: (a) previous experience, (b) communication, (c) goal orientation, and (d) arousal. The coexistence of these factors and the team's athletic performance were then conceptualized via an evidence-based schematic. The emerging symbolic design was used by the SSPCs to discuss the team's perceptions of practice, game day, and off court demands. The presentation will focus on (a) the results of the analyses, (b) the usefulness of using qualitative methodologies in case conceptualization processing, and (c) the importance of avoiding a "cook book" approach to psychological performance enhancement.

## POSTERS

### Coaching

#### 1

##### **HOW COACHES INFLUENCE ATHLETIC PERFORMANCE: THE IMPACT OF FEEDBACK STRATEGIES ON ATHLETIC PERFORMANCE, ATHLETE SATISFACTION, AND PROACTIVE SPORT BEHAVIOR**

*Zachary Mastrich, Virginia Polytechnic Institute and State University, USA;*

*Trevin Glasgow, Virginia Polytechnic Institute and State University, USA;*

*E. Scott Geller, Virginia Polytechnic Institute and State University, USA*

Research has found that the quantity and quality of coaching feedback significantly predicts the motivation and self-perception of athletes'. Further, several studies have found that athletes' motivation predicts sport performance. The present study expands upon the effect of the type of verbal feedback that a coach uses. Specifically, this study examines how perceived feedback predicts athletes' performance, sports behavior and proactive sport behavior, as mediated by intrinsic motivation, self-efficacy, and team cohesion. Participants in this study were 300 undergraduate students from a large university in the United States. All participants had competed in a sport at a high level (i.e., varsity high school level or above). This study was conducted as an online survey. Regression analyses revealed that general positive reinforcement, instructive positive reinforcement, and punishment predicted intrinsic motivation, while punishment and mistake contingent encouragement predicted extrinsic motivation. General positive feedback and punishment predicted self-efficacy and general positive reinforcement predicted perceived team cohesion. In addition, self-efficacy was the only significant predictor of performance, while intrinsic motivation and self-efficacy predicted satisfaction and proactive sport behavior. The results of this study can inform which types of feedback coaches may wish to use with their athletes to increase performance, satisfaction, and proactive sport behavior of their athletes.

#### 2

##### **IDENTIFYING HOW MENTAL TOUGHNESS IS DEVELOPED AND FOSTERED ON ATHLETIC TEAMS: PERSPECTIVES FROM HIGH SCHOOL COACHES**

*Leilani Madrigal, Long Beach State University, USA;*

*Madison Hunt, Long Beach State University, USA;*

*Courtney Novak, Long Beach State University, USA;*

*Kiana Nua, Long Beach State University, USA;*

*Casee Wieber, Long Beach State University, USA;*

*Tiffanye Vargas, California State University, Long Beach, USA*

Consistent with positive youth development research and theory (e.g., Lerner et al., 2005,2006), mental toughness is comprised of the reduction of negative behaviors, cognitions, and emotions and the promotion of strength, engagement,

competencies, and thriving in sport (Gucciardi et al, 2009a; Jones et al., 2007). Researchers have suggested mental toughness may be a life skill that can be taught (Gould, Giffes, & Carson, 2011) and coaches play a significant role in developing and maintaining athletes' sporting attitude, competence, and performance (Chelladurai, 2007). Given that high school coaches interact with athletes at such a developmental age, providing positive effective tools to build mental toughness is an ideal phase to build mental toughness. Thus the purpose of this project is to qualitatively examine high school coaches' perceptions of the mechanisms they engage in to develop and maintain mental toughness for their athletes. Additionally, challenges for the high school population and advice for new coaches on how to develop mental toughness will be discussed. A total of 15 high school coaches from southern California participated in semi-structured interviews lasting approximately 45 minutes each. Findings revealed multiple approaches used at the high school level with most strategies falling into themes of coaching environment, communication, mental components, and instruction and drilling. Challenges to consider for the high school population included addressing the generation Z "boom-lets", and the home and living environment. Further discussion will include practical advice for coaches regarding developing a strong coaching philosophy, coach-athlete relationships, and suggestions for self-improvement.

#### 3

##### **INFLUENCE OF PERCEIVED SUPPORT ON MALE AND FEMALE HIGH SCHOOL HEAD COACHES' COACHING EFFICACY**

*Taylor Casey, University of North Texas, USA;*

*Christina Villalon, University of North Texas, USA;*

*Scott Martin, University of North Texas, USA*

Social support is a proposed source of coaching efficacy (Myers et al., 2017), yet limited information exists on the influence perceived social support has on coaches' coaching efficacy beliefs. Thus, the purpose of this study was to examine the influence of perceived support from others (school and athletic administration, teachers and coaches, students, athletes, parents, and community members) on male and female high school head coaches' coaching efficacy. Participants, 1,477 males ( $M_{age} = 43.27 + 10.50$ ) and 539 females ( $M_{age} = 38.74 + 10.42$ ), completed items regarding perceived support and the Coaching Efficacy Scale II – High School Teams (CES II – HST; Myers, Feltz, & Chase, 2011). T-tests revealed that female coaches had significantly lower scores for perceived support in their coaching role from school administration, athletic administration, fellow coaches, fellow teachers, athletes, and the community than male coaches ( $p < .05$ ). Coaches perceived support from others was significantly correlated to their coaching efficacy scores ( $p < .001$ ). A hierarchical regression showed that perceived support from fellow coaches, athletes, and parents significantly predicted coaching efficacy ( $\Delta r^2 = .13, p < .001$ ); after accounting for gender, years coaching, coaching education, and sport psychology education. These findings contribute to the body of research regarding coaching efficacy sources, and may provide additional insight for sport psychology consultants, coach developers, and researchers when working with coaches at the high school level.



## 4

**POST-MASTERS' STUDIES IN POSITIVE SPORT PSYCHOLOGY AS A WAY OF ADVANCING POSITIVE SPORT**

*Ewa Serwotka, Fundacja Sportu Pozytywnego, Poland;*  
*Aleksandra Pogorzelska, Foundation of Positive Sport, Poland;*  
*Artur Poczwardowski, University of Denver, USA;*  
*Natalia Pawelska, Foundation of Positive Sport, Poland*

Positive Sport (PS, Poczwardowski, Nowak, Parzelski & Kłodecka-Różalska, 2012) borrows extensively from the research and practice of sport, exercise, and performance psychology. PS aims at providing positive experiences to individuals, groups, teams, and organizations while pursuing highest performance levels. The philosophy of PS views sport as a system, which is continuous in time (i.e., it is a lifetime activity), has continuity in transitions among various sports roles (from an amateur to a professional/Olympian to an avid exerciser). In Poland, PS has developed in the following areas: (a) education (post-master's curriculum and as separate courses), (b) science (externally funded research projects), and (c) professional practice (e.g., in sport psychology, coaching). This poster presents an overview of post-master's program in the psychology of positive sport (PPS) and its evolution over almost a decade. Since 2009, the post-master's program has produced 124 graduates representing a variety of professions (e.g., psychologists, sport psychologists, coaches, personal trainers, physical education teachers). The diversity in the students' professional roles, their age, and other socio-economic features provided an additional value to the teaching and learning experiences for all involved. The content of the post-master's program in PPS has been created in cooperation with the Foundation of Positive Sport (a non-profit organization aiming at making sport in Poland as a whole more socially responsible). The program benefited from participation of many people (including the graduates) and from the practical application of the principles of PS in 'real life.' As a result of the curriculum emphasis on social change, many graduates decide to become 'ambassadors of PS' and continue to promote positive values in their respective work places (or homes and clubs as parents). This poster will also outline implications for academic courses that aspire to instill positive changes in sports.

## 5

**PREDICTION OF TENNIS SERVE DIRECTION: EXPERT TENNIS PLAYERS' VISUAL ATTENTION AND MICROSACCADES**

*Masanori Takahashi, Nihon University, Japan;*  
*Hirohisa Isogai, Professor, Japan;*  
*Fumio Mizuochi, Professor, Japan;*  
*Takehiro Iwatsuki, University of Nevada, Las Vegas, USA;*  
*Judy Van Raalte, Springfield College, USA*

Anticipation is a key skill required for skilled performance in many sports. The purpose of this research was to explore factors related to anticipation of serves in singles and doubles. Specifically, we assessed the microsaccades (covert attention) paid to a visual objects (tennis serves) with a sample of eight expert tennis players. Using EyeLink technology, the eye movements of expert tennis players were traced while viewing video images of tennis singles and doubles serves under three conditions: (a) free viewing, (b) fixational viewing of ball-racquet impact, and (c) fixational viewing of ball-release areas. In the free viewing condition, tennis players viewed video serves and predicted the direction of the serves

by pushing a right or left button as accurately and quickly as possible. In the two fixational conditions, tennis players fixated on a target of blue circle (diameter twelve pixels) superimposed on the video serves and predicted the serve direction in the same manner as in the free viewing condition. Using the Engbert and Kliegl (2003) algorithm for detecting microsaccades, we found microsaccades in both fixational conditions but not in the free viewing condition. The frequency of microsaccades lowered as a serve motion progressed, and the direction of microsaccades turned to the server's racket during forward swing in singles, and to the forward player after ball-release of toss in doubles. In short, the frequency and direction of microsaccades changed depending on tennis players' attentional shifts. These results suggest that microsaccades are an indicator of covert attention for anticipatory response. Therefore, visual cues may be used to enhance cognitive skill for anticipation in tennis.

## 6

**PSYCHOLOGICAL WELL-BEING AMONG SPORTS COACHES**

*Alexandra Potts, Leeds Beckett University, UK;*  
*Faye Didymus, Leeds Beckett University, UK;*  
*Mariana Kaiseler, Leeds Beckett University, UK*

Background: Psychological well-being (PWB) can be defined as a state of happiness, health, and meaningfulness (Robertson & Cooper, 2011), and is thought to include both hedonic (i.e., happiness) and eudemonic (i.e., worth and purpose) elements. High PWB is associated with personal development, self-actualization, environmental mastery, creativity, and positive relationships. In contrast, low PWB relates to reduced job involvement, absenteeism, and ill health (Hjalm et al., 2007). Despite these important ramifications of PWB and the relevance of personal development and mastery, for example, to sports coaches, few studies have explored PWB within the context of coaching.

Aim: To generate in depth insight to PWB among sports coaches.

Methodology and methods: Guided by my constructionist approach, semi-structured interviews were conducted with 19 sports coaches (13 men, six women) aged between 21 and 56 years ( $M_{age}=37.4\pm 12.1$  years). Following institutional ethical approval, each interview was conducted face-to-face and lasted between 40 and 90 minutes ( $M_{duration}=64:51\pm 15:98$ ). Data was organized and analyzed using abductive logic and thematic analyses.

Results: From the interview data, 27 themes were constructed, which were categorized into six general dimensions that each related to well-being: autonomy (3), self-acceptance (4), purpose in life (5), environmental mastery (4), personal growth (5), and positive relations with others (6). The findings highlight the elements of PWB (e.g., positive relationships, personal growth, and purpose in life) that were most relevant for the coaches.

Conclusion: Overall, the six dimensions of PWB were evident across the coaches in this study, thus representing some of the first to qualitatively explore coaches' experiences of PWB.

Science-practice relationship: To make use of these findings, practitioners should consider how coaches can develop positive relationships and make continual progress with professional development and personal growth, which could be achieved through offering team building activities and development courses. In doing so, coaches' PWB and performance are likely to be enhanced.

## 7

### SPORT PSYCHOLOGICAL INJURY MANAGEMENT

*Kathrin Staufenbiel, University of Cologne, Germany;  
Christian Heiss, Performance Entwicklung, Germany*

Similar to other crises an injury puts high demands on athletes. An injured athlete needs to adapt, both psychologically and socially to the current situation. Sport psychological interventions depend on the individual characteristics of the injured athlete and the phase of rehabilitation. In this presentation we draw from theory (e.g., Wiese-Bjornstal, Smith, Shaffer, & Morrey 1998; Santi & Pietrantonio, 2012) and consulting practice with injured athletes from multiple sports and give food for thought with regard to the position and role of sport psychologists. First, we describe sport psychological interventions to help prevent injuries. Second, we describe individual characteristics that have an impact on how athletes deal with an injury. Last, we propose a new framework and describe five phases of the rehabilitation process of an injury, crisis intervention, emotional analysis, physical rehabilitation, re-entrance practice, re-entrance competition, and examples of sport psychological interventions for each phase.

## 8

### THE IMPACT OF LEADERSHIP TRAINING ON THE DISPLAY OF ATHLETE LEADERSHIP BEHAVIORS

*Katherine Hirsch, University of Windsor, Canada;  
Todd Loughead, University of Windsor, Canada*

Athlete leadership is defined as “an athlete occupying a formal or informal role within a team who influences a group of team members to achieve a common goal” (Loughead, Hardy, & Eys, 2006, p. 144). Athlete leadership has been reported to have a positive effect on the functioning of sport teams (Loughead et al., 2016), demonstrating the importance of implementing athlete leadership development programs. The purpose of the present study was to examine whether previous leadership training impacted the frequency to which athletes displayed athlete leadership behaviors. The participants were 81 Canadian university football players competing at the varsity level with a mean age of 20.15 years (SD = 1.73). Participants reported whether they received any type of leadership training and the nature of that training. Additionally, each participant completed the Leadership Scale for Sports (LSS; Chelladurai & Saleh, 1980) and the Differentiated Transformational Leadership Inventory (DTLI; Callow, Smith, Hardy, Arthur, & Hardy, 2009) to assess self-rated athlete leadership behaviors. It was hypothesized that athletes who had received previous leadership training would report using more athlete leadership behaviors compared to those with no leadership training. The results indicated that 59.3% of participants had never received any type of leadership training. Furthermore, the results of a MANOVA showed no significant differences in the frequency of athlete leadership behaviors between participants who had received previous leadership training and those who did not, Pillai's trace = .17,  $F(12, 54) = .90$ ,  $p = .55$ . A possible explanation for these findings is that the participants who had previous leadership training reported only receiving it once and it was not sport specific. These findings highlight the need for targeted sport specific and ongoing athlete leadership training.

## 9

### “YOU DON'T HAVE PROBLEMS WITH THE COACH, UNLESS...”: DUAL CAREER ATHLETES' PERCEPTIONS OF (DIS)EMPOWERING MOTIVATIONAL CLIMATE

*Milla Saarinen, University of Jyväskylä, Finland;  
Tatiana Ryba, University of Jyväskylä, Department of Psychology, Finland;  
Noora Ronkainen, Liverpool University of John Moores, UK;  
Harri Rintala, University of Jyväskylä, Finland;  
Kaisa Aunola, University of Jyväskylä, Finland*

Sport is a very popular activity among youth, and motivational climates coaches create in sport are likely to have major implications for athletes' wellbeing and athletic functioning. However, little is known about whether these implications could transfer to other life domains. Grounded in theoretical tenets of Empowering Coaching (Duda, 2013) this study sought to explore the high school athletes' perceptions of empowering and disempowering motivational climates and possible implications these have for athletes' dual career behavior. Retrospective interviews were conducted with 22 Finnish cross-country skiers about their experiences in elite athlete schools. The participants, aged 22-34 at the time of the interview, were coached by 15 high school coaches in 11 different schools. We analysed the interviews using thematic analysis (Braun & Clarke, 2006). The results revealed that a majority of athletes experienced a disempowering coach-created climate in high school, characterised as ego-involving, controlling and socially not supportive. It is likely that the strong reinforcement the athletes received for sport increased their efforts and commitment on athletic career. Conversely, by demonstrating lack of support and attention for athletes' educational pursuits the environment might have decreased athletes' commitment into academic goals. Decreased academic success in high school may have potential negative consequences in terms of athletes' higher education and vocational life. The results of this study emphasize the importance of the coach-created motivational climate in athletes' balanced dual career development.

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### Collegiate Sport

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## 10

### DIFFERENCES IN WAYS OF COPING BETWEEN COLLEGE ATHLETES AND NON-ATHLETES

*Zachary Soulliard, Saint Louis University, USA;  
Janet Oberle, Saint Louis University, USA;  
Joanne Perry, UNC Charlotte, USA;  
Michael Ross, Saint Louis University, USA;  
Mark Pousson, Saint Louis University, USA;  
Ashley Hansen, Saint Louis University, USA;  
Taylor Montgomery, Saint Louis University, USA*

Introduction: College athletes engage in a wide range of thoughts and behaviors to cope with the demands of stressful events. Researchers have identified that sport-related stress is associated with various cognitive and behavioral coping strategies (Crocker, 1992). However, it is unclear if stressors for athletes are related to different ways of coping in comparison to non-athletes. Methods: A sample of undergraduate non-athletes ( $n = 48$ ) and athletes ( $n = 74$ ) at a NCAA Division I college in the Midwest completed the

Ways of Coping Questionnaire (Folkman & Lazarus, 1988) in order to assess a total of eight possible approaches to coping (i.e., confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal). Results: A multivariate analysis of covariance (MANCOVA) was conducted to investigate differences in ways of coping between college athletes and non-athletes when controlling for the effect of gender. Primary analyses of the data yielded a statistically significant finding in ways of coping between college athletes and non-athletes,  $F(8, 112) = 2.26, p < .05$ ; Wilk's  $\Lambda = .86$ , partial  $\eta^2 = .14$ . Follow-up analyses of the eight subscales from the Ways of Coping Questionnaire were nonsignificant based on a Bonferroni correction applied due to multiple comparisons. Discussion: Although previous literature has explored coping behaviors among athletes, this study further clarifies that the coping mechanisms of college athletes are notably different from non-athletes. These findings suggest that college athletes and non-athletes may approach similar stressors differently, possibly based on the unique experience of athletes during sport-related stressors. These findings could have implications for coaches and staff in higher education when working with college athletes and non-athletes.

## 11

### EDUCATIONAL AND TRAINING NEEDS OF COACHES TO IMPROVE ALCOHOL LITERACY

*Stinne Soendergaard, Florida State University, USA;*  
*Graig Chow, Florida State University, USA;*  
*Matthew Bird, Florida State University, USA*

The high rate of alcohol consumption among student-athletes places them at increased risk for engaging in unsafe behaviors and experiencing negative consequences (Brenner & Swanik, 2007). Coaches have been identified as key individuals who impact the alcohol use of their athletes (Pitts, Chow, & Yang, in press). Although coaches are in an ideal role to manage athlete drinking, many lack the knowledge and self-confidence to be effective (Nolt, Sachs, & Brenner, 2013). The purpose of this study was to examine educational and training needs that can help coaches manage student-athlete alcohol use. In addition, alcohol use literacy and alcohol misuse confrontation efficacy were investigated, including differences based on previous training received. A total of 518 NCAA head coaches (DI = 160, DII = 127, DIII = 231) completed the Alcohol Use Literacy Scale and Alcohol Misuse Confrontation Efficacy Scale as well as two open-ended questions eliciting their beliefs about what kind of alcohol training is needed and what kind of information and skills should be included in training. Results revealed significant positive correlations between alcohol use literacy and all confrontation efficacy subscales. Coaches who had received alcohol management training had higher alcohol use literacy and outcome efficacy than coaches who had no training. Thematic analysis regarding the type of training needed revealed four main themes: Alcohol-related education, alcohol prevention training, alcohol literacy, and learning how to handle alcohol use. Four main themes also emerged for the types of information and skills that should be emphasized in training: General alcohol knowledge, communication and interaction, alcohol prevention and management, and alcohol literacy. Findings have implications for designing effective alcohol prevention and intervention programs aimed at NCAA coaches and teams.

## 12

### EXAMINING THE EXPERIENCES OF STRESS IN NCAA MALE AND FEMALE COACHES: "I'M NOT GOING TO FAIL AND THAT DRIVES ME EVERY DAY"

*Kathryn Ambrose, Synergy Performance, USA*

The purpose of this mixed-method study was to expand research on elite coaches' experience with stress (Frey, 2007; Olusoga et al., 2009). An even gender split explored gender differences among coaches to understand a variable in the large coaching gender imbalance (Lapchick et al., 2013). NCAA coaches ( $n=12$ ) experiences of occupational stress was examined through a semi-structured interview with a card-mapping task and questionnaire (OSI-SP).

Higher-order themes were reported for positive stressors (competitions, coaching), negative stressors (athlete concerns, organisational demands), effective coping strategies (problem-oriented communication), and ineffective coping strategies (avoidance strategies). A gender difference was found by females experiencing negative stressors outside of the occupation (sacrificing personal time) which were uncontrollable whereas males found athlete concerns the highest negative stressor which were controllable. Coping strategies differentiated by gender by males reporting problem-oriented coping (changing the situation) and females emotional-oriented coping (communicating feelings).

Negative stressors on coaching performance were uncontrollable factors compared to positive stressors of controllable factors indicating when coaches can prepare for demands it lowers stress. A gender difference supported a differentiating variable in male and female coaches beginning the exploration of occupational gender misrepresentation. This means that there are variables between gender which effect stress appraisal and coping. Results support a need for developmental training to cope with negative stressors dependent on gender.

## 13

### EXPLORING THE PROCESS OF CAREER DECISIVENESS IN COLLEGE STUDENT-ATHLETES BY USING MOTIVATIONAL SYSTEMS THEORY: A CROSS-LAGGED PANEL ANALYSIS

*Chung-Ju Huang, University of Taipei, Taiwan;*  
*Tzu-Lin Wong, National Taipei University of Education, Taiwan*

Given that motivational systems theory (MST) provides an appropriate model to interpret the impacts of individual factors and social environmental contexts on career decisiveness, an exploration of complicated relationships among variables within the model can be helpful to identify the influential factors of college student-athletes' career planning out of sport. Purpose: This study examined the reciprocal relationships among the MST components (career goal, optimism, ability belief, social support), vocational engagement, and career decisiveness using a cross-lagged panel analysis. Methods: At the first stage, 310 college student-athletes (age = 21.44 years) were recruited to complete a battery of questionnaires for assessing career issues. After an 8-month interval, the second stage was conducted to the same participants by utilizing the same questionnaires and procedures of the first stage. Totally, 204 respondents (141 males, 63 females) who completed the full two-stage procedure were confirmed. Results: The structural equation modelling indicated that,

at the same time point, career goal, ability belief and social support could influence vocational engagement, and then in turn impacted career decisiveness. The formal career decisiveness behaviors were associated with the MST components observed 8 months later. Further, the formal career goal-setting was related to vocational engagement and career decisiveness that were reported 8 months later. This study identified the reciprocal relationships of the MST variables and career decisiveness, and the mediating role of vocational engagement within these relationships. Conclusion: Given the crucial roles of career decisiveness in the quality of adaptation to the termination of sport career, it appears necessary to gain insight into the factors that lead student-athletes to choose their future career paths. Through the findings of this study, the authorities will gain information on how to develop appropriate policies or strategies for college athletes to deal with their career transition out of sport.

## 14

### **GAP ANALYSIS OF DIVISION I COACHES AND ATHLETES' PREFERENCE ON TIME DEMAND CONCEPTS: IMPLICATIONS FOR SPORT PSYCHOLOGY PRACTICE**

*Jay Santos, University of Florida, USA;*  
*Michael Sagas, University of Florida, USA*

Involvement and commitment with intercollegiate athletics are inherently tasking to student-athletes. As such, the appropriateness of the title 'student-athlete' has been challenged (Purdy, Eitzen, & Hufnagel, 1982; Singer, 2008; Staurowsky & Sack, 2005). The differing outcomes related to the mission of the educational institutions and athletic departments as well as the time spent by student-athletes are central to this challenge.

In this study, the differences in preference across five time demands measures (Countable Athletically Related Activities [CARA], Competition Time Demands, Out of Season Time Demands, Academics, and Travel) between coaches and student-athletes and between men's and women's sports were explored. This manuscript utilized the results of the Division I time demands survey conducted collaboratively by the Autonomy Conferences, Division I Council, Division I Student-Athlete Advisory Committee (SAAC), and the NCAA. Close to fifty-thousand student-athletes, coaches, athletic directors, senior women administrators, faculty athletic representatives, and other department personnel completed the survey. Only the data from the coaches (N=3,071) and student-athletes (N=44,058) were utilized in this study. Using a team-level unit of analysis, the total sample is composed of 76 teams, representing the student-athletes and coaches of 19 men's and 19 women's teams.

Findings indicated that time demand is an issue that not only contradicts the NCAA value system but also reflects a tension between coaches and athletes. Results revealed the difference in preference between coaches and athletes with regard to time demand concepts. While student-athletes favors taking off time from their athletic commitments, the coaches want more time with their athletes. There are no discernable differences between coaches of men's and women's sports across the time demands measures. Findings suggest practical implications for sport psychology professionals who are working to optimize the student-athlete experience, as well as for coaches and administrators of athletics department at the NCAA Division I.

## 15

### **GRIT AND COMPETITIVE TRAIT ANXIETY PROFILES OF COLLEGE ATHLETES**

*Matthew Symonds, Northwest Missouri State University, USA;*  
*Timothy Wall, Northwest Missouri State University, USA;*  
*Tyler Tapps, Northwest Missouri State University, USA*

Intercollegiate sport occupies a significant space in popular culture. Athletes and coaches are persistently exploring ways to enhance the understanding of optimal physical and mental performance. The purpose of this study was to investigate the grit and competitive trait anxiety profiles for a sample of student athletes (N=325) at a Division II university in the American Midwest, building on a theoretical foundation laid by Duckworth, Peterson, Matthews, & Kelly, (2007), Bandura (1977), and Martens, et al. (1990). Student-athletes were asked to participate in an electronic survey including demographic information, the Short Grit Scale (Grit-S) and the Sport Competition Anxiety Test (SCAT). Overall Grit-S and SCAT mean scores were 3.84 (SD = .44) and 19.05 (SD = 5.11), respectively. Further analysis supported research hypotheses. Although weak, a statistically significant negative correlation between Grit-S and SCAT scores was found ( $r = -.202$ ,  $r^2 = .04$ ,  $p < .05$ ) and the individual Grit-S item: "Setbacks don't discourage me" was a predictor of SCAT score ( $F(1,112) = 11.067$ ,  $p < 0.05$ ). Trends related to year in school for both Grit-S and SCAT scores were also revealed. No difference in Grit-S or SCAT score between men and women was found. Finally, both cross country and track reported SCAT scores that were significantly higher than those reported by baseball ( $F = 3.443$ ,  $df = 9$ ,  $p < 0.05$ ). While the current study uncovered an initial connection between grit and competitive trait anxiety, more research is needed to determine what applications exist for practitioners. To date, it is unknown if interventions focused on improving grit will have a subsequent effect on competitive trait anxiety. As athletes gain competitive experiences and develop physically, enhanced psychological skills and a strengthened grit profile could lead to reduced competitive trait anxiety and improve sport performance.

## 16

### **INTRINSIC MOTIVATION OF COLLEGIATE AND CLUB RUGBY ATHLETES**

*David Laughlin, Grand Valley State University, USA;*  
*Christian Hoban, Grand Valley State University, USA;*  
*Arya Alami, California State University, Stanislaus, USA;*  
*Stephanie Armstrong, Grand Valley State University, USA;*  
*Hannah Mead, Grand Valley State University, USA*

The purpose of this study was to examine subtypes of intrinsic motivation within rugby athletes. Previous research has investigated motivation within rugby athletes (Cresswell & Eklund, 2005; Pope & Wilson, 2012), but there has been little investigation into specific subtypes of intrinsic motivation. For this study, 35 current or former collegiate and/or club rugby athletes (19 female, 16 male) completed the Reiss Motivation Profile® for Sports. The Reiss Profile® is a 128-item, standardized assessment of the intensity of an individual's motivation in 14 areas, or desires, that are universal to all humans: acceptance, curiosity, eating, expedience, family, idealism, interdependence, order, physical activity, power, social contact, status, tranquility, and vengeance (Reiss, 2005). The Reiss Profile® has been shown to produce valid and reliable data (Havercamp & Reiss, 2003) and has been used

in athletic and academic populations to examine underlying motivation (Reiss et al. 2001; Froiland et al. 2015). As a group, participants in the study differed substantially from population averages (i.e., means in upper or lower 20% of population norms) in two desires: physical activity ( $M = 1.16$ ) and tranquility ( $M = -0.94$ ). A similar trend appeared in both female (MPHYSICALACTIVITY = 1.33; MTRANQUILITY = -0.95) and male (MPHYSICALACTIVITY = 0.96; MTRANQUILITY = -0.92) participants. All other desire means fell within average ranges. Results suggest that, on average, athletes were motivated by an above average desire for physical exercise and a below average desire for physical safety. Beyond motivation and instruction, understanding the underlying intrinsic motivators of rugby athletes could provide insight into important issues within the sport such as burnout and adherence to rehabilitation (Cresswell & Eklund, 2006; Carson & Polman, 2017). These findings also support the value in determining sub-types of intrinsic motivation so coaches and clinicians can tailor programs to individual athletes.

## 17

### LIFE AFTER COLLEGIATE SPORT: FROM ATHLETE TO EXERCISER

*Madeline Barlow, Temple University, USA;*  
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Research indicates student-athletes who transition out of sport are no more physically active than non-athletes. Finding ways to help athletes develop an exercise identity rather than just an athlete identity ensures they continue to obtain exercise's mental and physical benefits. With the support of a research grant awarded by a Division I athletic conference, this research involved conducting an in-depth examination of student-athletes to determine the barriers to maintaining healthy physical activity levels following an athlete's transition out of collegiate sport. An online survey was distributed to current and former student athletes (i.e., those with exhausted eligibility, career-ending injury, academic reasons for dropping out, etc.) from two Division I universities to determine levels of athletic identity, exercise identity, and current physical activity levels. Focus groups were subsequently conducted to gain a deeper understanding of the participants' experience prior to and following the transition out of collegiate athletics. The narratives of the focus groups were used to facilitate development of a 'best practices' handbook to help student-athletes manage this transition from athletic identity to exercise identity through the use of psychological skills, such as increasing self-awareness, self-talk and cognitive restructuring, motivation and adherence, goal setting, and career planning.

## 18

### LINKING GRIT WITH WELL-BEING IN UK STUDENT-ATHLETES: THE MEDIATING ROLES OF ENGAGEMENT AND EMOTIONAL EXHAUSTION

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Grit is a stable personality construct which represents a person's perseverance and passion towards long term goals in spite of adversity and performance plateaus (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087). Grit has been

found to predict a range of outcomes associated with well-being and performance in educational settings (e.g., Credé, Tynan, & Harms, 2017; Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014). One unexplored educational context is that of student-athletes, who are required to manage a variety of education, sport and life demands. Understanding how grit predicts various outcomes for this population is important for identifying athletes who could be 'at risk' of reduced well-being and burnout. This study examines the link between grit, engagement, emotional exhaustion and affect in student-athletes. Following institutional ethics approval, 324 student-athletes (209 males, 115 females;  $M$  age = 19.64,  $SD = 1.71$ ) completed an online questionnaire assessing grit (Duckworth & Quinn, 2009), emotional exhaustion, momentary engagement and momentary affect. Using Hayes' PROCESS tool (Hayes, 2012), mediation regression analysis revealed a significant indirect effect of grit on emotional exhaustion through momentary engagement ( $b = -0.10$ , 95% BCa CI [-0.18, -0.02]). It was also found that grit ( $b = 0.47$ , 95% CI [0.31, 0.63],  $t = 5.76$ ,  $p < 0.001$ ) and emotional exhaustion ( $b = -0.18$ , 95% CI [-0.26, -0.10],  $t = -4.49$ ,  $p < 0.001$ ) were significantly associated with momentary positive affect ( $R$ -squared = .22). Furthermore, there was a significant mediation effect of grit on positive affect through emotional exhaustion ( $b = 0.14$ , 95% BCa CI [0.07, 0.22]). From an applied perspective, these findings highlight the important role of educators in providing student-athletes with the tools to persevere towards their goals and remain engaged in spite of conflicting education and sport demands.

## 19

### META-PERCEPTIONS, CLOTHING-BASED BODY IMAGE DISSATISFACTION AND SOCIAL PHYSIQUE ANXIETY AMONG MALE AND FEMALE COLLEGIATE ATHLETES

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The recent shift away from cultural practices of sexual objectification and increased culpability has heightened the importance of reducing appearance monitoring. Adopting an observer's perspective or ruminating about body image dissatisfaction can disrupt an individual's stream of consciousness, consume attentional resources, impair performance or even lead to mental health disorders. Social physique anxiety (SPA), a known correlate of depression, disordered eating and substance use stems from internalizing perceptions including clothing-based body image and meta-perceptions where males are understudied. To better understand these mechanisms among males, this study compared these body image variables and biological characteristics of males and females. NCAA DI, II and III athletes ( $N=1420$ , 30% male) representing 16 sports completed demographic, SPA and body image questionnaires on SurveyMonkey and were measured by athletic trainers. Significant paired sample t-tests indicated peer, parent and coach meta-perceptions favoring larger bodies among males but smaller bodies among females for daily clothing, uniforms and all three meta-perceptions. Females also reported significantly higher SPA than males ( $p < 0.001$ ). After controlling for BMI and academic status ( $p=0.06$ ), body image dissatisfaction in daily clothing (3.5%) and parent meta-perceptions (1%), explained only 4.5% of SPA variance ( $p=0.001$ ) among males whereas after controlling for BMI and

pubertal timing (11%,  $p < 0.001$ ), uniform- (22.6%) and daily clothing dissatisfaction (3%) explained 35% of total SPA variance among females. Athletes should be encouraged to shift their appraisals from third- person (how do I look) to first-person, non-appearance related (what am I capable of) appraisals.

## 20

### PERCEIVED INFLUENCE OF SELF-TALK AND IMAGERY TECHNIQUES ON EMOTION REGULATION OF CHILDREN ATHLETES IN NIGERIA

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*Babajide Ige, University of Ibadan, Nigeria;*  
*Mohammed Sanusi, Nigeria Football Federation, Nigeria;*  
*Mary Pindr, University of Maiduguri, Nigeria;*  
*Sunday Odior, National Institute of Sport, Lagos, Nigeria;*  
*John Vurho, University of Maiduguri, Nigeria;*  
*Steve Hamafyelto, University of Maiduguri, Nigeria;*  
*Nashon Likki, University of Maiduguri, Nigeria*

Emotions experienced before and during sports competition influence performance and the regulation is therefore regarded by sport psychologists as an important psychological skill (Hanin, 2010). Studies on the appropriate emotional responses which might be beneficial to children athletes by, improving the economy of movement, the quality of interaction with teammates, reducing the risk of disciplinary action, and reducing the risk of injury are few judging from a meta-analytical review of literature.

Many children have been reported to experience emotions that are dysfunctional and these have led to slump in performance outcome because they lack techniques that should be employed when such a discrepancy exists between current and desired emotions. Therefore, this study, investigated the perceived influence of self-talk and imagery techniques on children athletes emotion regulation.

Descriptive design was used and participants consisted of (123) male and female children athletes with mean age (12.42, sd 4.26). Ethical approval from the appropriate authority and informed consent from participants were granted. Data were collected with the Sport Imagery Questionnaire for Children ( $r = .83$ ) Self-talk Scale ( $r = .78$ ) and Emotion Regulation Scale ( $r = .78$ ). Statistical analysis was performed on the data with the Pearson's correlation and regression analysis.

Significant positive relationship of ( $p < .002$ ) was observed between the self-talk and emotion variables, and similarly between imagery and emotion variables ( $p < .010$ ). Further results among others revealed that both self-talk and imagery techniques jointly influenced athletes' emotion regulation. While (64%) of both the self-talk and imagery techniques variables were accounted for in the variance of emotion regulation.

Evidence suggests that imagery and self-talk are mechanisms and potential moderators of emotion regulation which should be used as interventions designed for the regulation of emotion of children within and outside sport domain. This may go a long way to assist the athletes achieve their potential even when they are under pressure.

## 21

### SELF-ESTEEM BETWEEN HIGH AND LOW PERFORMERS AMONG NCAA DIVISION II STUDENT-ATHLETES

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*Mindy Mayol, University of Indianapolis, USA;*  
*Kenneth Everett, University of Indianapolis, USA*

Previous research demonstrated a positive relationship between self-esteem and athletic success (Neff, 2011). The purpose of this study was to investigate state self-esteem (SSE) between high and low performers across time. Two hundred and nine student-athletes (nmales = 152, nfemales = 57) between 18 and 23 years of age ( $M = 19.33$ ,  $SD = 1.13$ ) from eight NCAA division II teams completed a demographic questionnaire and the State Self-Esteem Scale (Heatherton & Polivy, 1991). The objective athletic performance was determined by the percentage of wins/losses based on their total number of conference games. All of the assumptions underlying the Analysis of Variance (ANOVA) were met. A 2 (Performance: high & low) x 3 (Time: pre-, in-, off-season) mixed ANOVA suggested a significant interaction between performance levels and time on appearance SSE,  $F(2, 414) = 3.48$ ,  $p = .032$ , partial eta squared = .017. The analysis of the simple main effects suggested that low performers scored higher on appearance SSE in the pre-season ( $M = 23.58$ ,  $SD = 3.96$ ) compared to the off-season ( $M = 22.81$ ,  $SD = 4.15$ ),  $p = .021$ . Additionally, high performers scored lower on appearance SSE in the pre-season ( $M = 22.77$ ,  $SD = 4.60$ ) compared to the in-season ( $M = 23.51$ ,  $SD = 3.89$ ),  $p = .037$ . The results for performance, social, and overall SSE were not statistically significant. Appearance SSE among high performers decreased during pre-season perhaps due to lower fitness levels returning from the off-season, whereas their performance in the in-season boosted these levels (Gotwals et al., 2003). Understanding the factors contributing to increased performance across season(s), allows coaches and practitioners to take a proactive approach by optimizing athletes' well-being and preventing negative consequences associated with the appearance concerns.

## 22

### THE ROLE OF FACILITATIVE INTERPRETATION OF ANXIETY IN A GOLF PUTTING TASK

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*Ashley Hansen, Saint Louis University, USA;*  
*Taylor Montgomery, Saint Louis University, USA;*  
*Michael Ross, Saint Louis University, USA;*  
*Mark Otten, California State University, Northridge, USA;*  
*Ashley Samson, California State University, Northridge, USA;*  
*Gary Katz, California State University, Northridge, USA*

Introduction: An athlete's interpretation of anxiety has been shown to effect performance (Mesagno & Mullane-Grant, 2010; Jones, Swain, & Hardy, 1993) and qualitative research has supported a link between high self-confidence and facilitative anxiety interpretation (Hanton, Mellalieu, & Hall, 2004) The Competitive State Anxiety Inventory – Positive (CSAI-P; Otten et al., in press) is a measure designed to capture facilitative interpretations of anxiety. This study examined the link between self-confidence, facilitative interpretations, and golf putting performance. Method: Participants ( $n = 40$ ) included students from a state university that had varied experience in golf. Participants completed the CSAI-2R and CSAI-P before and after completing a total of 40 putts (two trials of 20 puts). Performance was measured by distance from the hole. Results: Measures were found to

have good internal consistency ( $\alpha > .80$ ). Self-confidence was significantly correlated with facilitative interpretation of anxiety (cognitive  $r = .78$ ,  $p < .01$ ; somatic  $r = .74$ ,  $p < .01$ ). Also, facilitative interpretations were significantly related to total putt score after manipulation (cognitive  $r = .47$ ,  $p < .05$ ; somatic  $r = .50$ ,  $p < .05$ ). Discussion: Results highlight the importance of utilizing a positively valenced measure (CSAI-P) to better understand the facilitative interpretations of anxiety. Moreover, past literature points to self-confidence as being one of the best and most consistent predictors of performance (Mellalieu & Fletcher, 2009). However, the current study found that the relationship between facilitative anxiety and performance was stronger than self-confidence. This may provide preliminary evidence for the benefits of regulated arousal during sport.

## 23

### THE UTILIZATION OF SELF-TALK IN SUCCESSFUL NCAA DIVISION II DISTANCE RUNNERS

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This qualitative research design was done in attempt to gain insight into the commonalities of NCAA Division II distance runner's self-talk or inner dialogue. The self-talk that was investigated was the natural types that distance athletes experience while competing in a distance performance. Self-talk has been described as a "multidimensional phenomenon concerned with athletes' verbalizations that are addressed to themselves" (Hardy, Hall, & Hardy, 2005). Self-talk is extremely pertinent to the runner's psyche, and subsequently, their performance. Van Raalte, Morrey, Cornelius, and Brewer (2015), reported 88% (425/483) of runners used self-talk while competing in a race. There is a lack of literature on self-talk in applied endurance sport settings (Weinberg, Miller, & Horn, 2012). The current study attempted to address this gap in the literature and provide data that could impact future research. The current study explored what types of self-talk are most commonly used and how effective these athletes perceive their self-talk to be. In addition, the researchers explored the participant's perceptions and receptiveness to working on their self-talk with a certified mental performance coach. Data was found via coding, and common themes were found among the participants through thematic analysis. Themes with these National level runners included (1) Motivation self-talk is utilized more commonly as the race distance gets longer (example an 800 versus a 10k), (2) Instructional self-talk and more specifically cues related to mechanics are utilized most during the finish of a race, and (3) Negative dialogue grows exponentially with the time of "discomfort" throughout a race. All of the participants but one, suggested they would be receptive and open to a mental strength coach working with them on their self-talk due to a possibility for improvement and "learning from an expert".

## 24

### UNDERSTANDING SOURCES OF SOCIAL SUPPORT IN COLLEGIATE ATHLETES

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Anna Farello, Ball State University, USA;  
Lindsey Blom, Ball State University, USA;  
Matt Moore, Ball State University, USA

Depression is a growing problem among college students, possibly due in part to a number of stressors, such as academic, financial, and social obligations (Ibrahim et al.,

2013; National Institute on Mental Health, 2014). College student athletes are also faced with these stressors, plus those that come with being student athletes (e.g., performance and academic pressures, time restraints, etc.). It is commonly believed that because athletes have higher physical activity levels (Armstrong & Oomen-Early, 2009; Salmon, 2000) and built-in support systems (Armstrong & Oomen-Early, 2009; Proctor & Boan-Lenzo, 2010), they are at a lower risk for depression. Recent studies, however, have suggested that depression levels in college student athletes are not significantly lower than non-athlete college students (Prinz et al., 2016; Wolanin et al., 2016). Because social support has been identified as a protective factor for depression in the overall college population (Cohen, 1985; Iwata, Ota, & Duman, 2013), the aforementioned findings warrant further investigation of the relationship between depression and social support in college student athletes. We surveyed 241 Division I student athletes from a mid-sized university across 16 different sports. Participants completed the Center for Epidemiological Studies Depression Scale (Radloff, 1977) and Berlin Social Support Scale (Schulz & Schwarzer, 2003). For this presentation, responses from three open-ended questions (e.g., What type of supports do you wish you had more of, and which do you see as most beneficial), were analyzed through open-coding by three researchers individually identifying and reaching a consensus of categories, sub-categories, and themes. Overall, athletes listed wanting more support from coaches and teammates, empathy, and support from the athletic department, and from sport psychologists and other wellness services. They found teammates, non-athletic support (i.e., family and friends) and counselors to be most beneficial.

## Consulting & Interventions

## 25

### APPLYING THE VISUAL OCCLUSION PARADIGM TO IMPROVE TACTICAL DECISION-MAKING IN HIGH SCHOOL QUARTERBACKS

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Shelbi Fisher, Indiana University, USA;  
Patrick McFadden, Indiana University, USA;  
Kyle Kennedy, Indiana University, USA

An integral component to athletes' tactical decision-making is their working memory capacity. Unfortunately, there is a dearth of literature in sport research exploring working memory capacity and how it may impact the development of effective tactical decision-making in athletes. Tactical decision-making interventions examined in conjunction with a measurement of athletes' working memory capacity may shed light on working memory capacity's role in athletes learning to make effective tactical decisions.

The visual occlusion paradigm has been a valuable avenue for improving the tactical decision-making of athletes. Thus, the present research aims to utilize the visual occlusion paradigm in creating a novel intervention for 4 quarterbacks who play high school football in the U.S. The study will utilize a single-subject, multiple baseline design, wherein athletes will complete a quarterback decision-making test as the dependent variable and will be assessed for the accuracy of their answers.

Prior to collection of dependent variable data, athletes will complete a measure of working memory capacity: the counting span task. Data collection is expected to begin in Spring 2018.

Quarterbacks in the study will engage in a 6-8 week intervention that uses the visual occlusion paradigm as a means for improving tactical decision making. During the intervention phase, athletes will be provided with feedback regarding the accuracy of their decisions (e.g., their ability to select appropriate pass options) and will be directed to relevant visual cues in the videos they watch. To assess the effect of the intervention on the accuracy of the athletes' decisions on the decision-making test, the immediacy of the intervention's effect, overlap, consistency of data patterns, and improvement rate difference will be analyzed between baseline and intervention phases.

Following a review of the intervention and data analysis procedures, results will be presented. Both practical and research implications will be discussed.

## 26

### **ASSESSMENT AND THE USE OF QUESTIONNAIRES IN SPORT PSYCHOLOGY CONSULTING: A COMPARISON OF ATTITUDES AND PRACTICES FROM 2002 TO 2017**

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*Carly Block, Miami University, USA;*  
*Robin Cooley, Miami University, USA;*  
*Emma Nilsson, Miami University, USA*

Assessment in sport psychology consulting includes a range of approaches based on the philosophies and models used by different consultants, athlete characteristics, and situational factors (Taylor, 2018). Typically, consultants employ three main types of assessment: interviews, inventories/questionnaires, and observation. Assessment practices would seem to have evolved over the past three decades as sport psychology has become increasingly professionalized. The purpose of this study was to examine the types of assessment used and attitudes about assessment, particularly the use of questionnaires, as expressed by AASP-certified sport psychology consultants in 2002 and in 2017. Participants in the study were 96 (2002) and 106 (2017) Certified Consultants-AASP who responded to an applied sport psychology assessment questionnaire designed by the authors. The questionnaire surveyed consultants' use of different assessment methods, their reasons for using questionnaires, the perceived usefulness of questionnaires in consulting, inventories/questionnaires used by consultants, perceived limitation and advantages in using questionnaires, and perceived biggest needs to enhance assessment in sport psychology consulting. The results showed that consultants in 2002 used questionnaires more often and perceived them as more useful than consultants in 2017. In 2002, psychology-trained consultants rated questionnaires as more useful than kinesiology-trained consultants, but these differences did not emerge for the 2017 sample. Questionnaires cited by the largest number of consultants included self-designed, the Athletic Coping Skills Inventory-28, Test of Attentional and Interpersonal Style, Test of Performance Strategies, and performance profiles. The Profile of Mood States was the most highly used questionnaire in 2002, but it was not in the top ten identified questionnaires used in 2017. The perceived advantages and limitations of questionnaire use were similar across time periods, and the biggest needs continued to be

greater contextual relevance, education/training in assessment for consultants, and simple and concise measures that can be used in field settings with athletes.

## 27

### **BRAIN WAVE ACTIVITY DIFFERENCES IN TASK COMPLEXITY AND PERSPECTIVE DURING IMAGERY**

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*Duncan Simpson, IMG Academy, USA;*  
*Robert Vangen, Barry University, USA*

Imagery has been shown to be an important mental skill in improving athletic performance (Weinberg, 2008). While the effects of imagery on motor learning and performance are well known, limited research has examined how various imagery factors influence athletes' cognitive effort to produce effective images. Previous research has suggested that task complexity and imagery perspective may be two factors that impact athlete's cognitive effort when imaging (Olsson et al., 2008). Therefore, the present study investigated how task complexity and imagery perspective affected brain wave activity during imagery using electroencephalography (EEG) measures. EEG recordings were collected from 21 collegiate soccer players (male  $n = 14$ , female  $n = 7$ ; M age = 20.71 years, SD = 1.55) visualizing from two perspectives (internal and external) on two motor tasks (simple and complex). Results reveal no differences in alpha brainwave activity during imagery when adopting different imagery perspectives (internal and external) or when imagining a complex or simple task. Results indicate that the left hemisphere was processing more information during imagery of the simple task, as measured by greater alpha brain wave activity in the upper values (11-13 Hz) in the right hemisphere as compared to the left. Findings indicate that the main area of the brain where this activity is different is the temporal lobe (lower and upper alpha levels), which is associated with the processing of auditory information, visual recognition, comprehension and production of language (Corr, 2006). Results imply that guided imagery scripts may interfere with athletes' imagery experiences as they appear to devote greater cognitive resources to processing audio information.

## 28

### **CONTROL? CONTROL? WHO HAS THE CONTROL? THE VMCCR MODEL OF THE CONSULTANT-CLIENT RELATIONSHIP IN SPORT AND PERFORMANCE PSYCHOLOGY**

*Whit Ryan, University of Denver, USA;*  
*Artur Poczwardowski, University of Denver, USA*

Understanding the evolving interactions between consultant and client is critical to successful sport and performance psychology delivery (SPPSD; Poczwardowski & Sherman, 2011). The consultant-client working alliance has been sporadically examined despite of its argued importance in applied work (Andersen, 2002; Petitpas, Giges, & Danish, 1999). The Visual Model of Consultant-Client Relationships (VMCCR) proposes a model conceptualizing three main phases of the consultant-client interaction: (a) initiating, (b) working, and (c) consolidating; occurring in a roughly linear fashion. When depicted visually through simple graphics, the VMCCR can be used to explain the consultation process to potential clients as a tool in advancing the client



understanding of the dynamics of upcoming collaboration. The VMCCR posits that the locus of control for decision-making, initiating, and managing the collaboration is a key identifier of each stage with movement from consultant to client. By understanding the distance between and overlap of client and consultant (as theoretical constructs) in a series of Venn diagrams, we examine the experiences of the consultant as central rather than coincidental to the development of the client. By assessing where the locus of control is and who is driving the interactions at any given time, we can explore the nature of the consulting relationship and hone in on intervention and relationship maintenance strategies to apply in each stage. Further, the VMCCR can be expanded upon by sport and performance professionals. As a discussion point, examples of how VMCCR can be expanded to a tripartite one involving consultees, co-consultants, or supervisors will be offered. The VMCCR will be described through its application to conceptualize SPPSD to an under-13 boys soccer team and their coach over the course of a year-long season. Finally, implications for practice and future research will be offered.

## 29

### CRAVING FLOW? MINDFULNESS, FLOW, AND TANHA

*Mark Aoyagi, University of Denver, USA*

One of the most frequently studied dependent variables in the sport psychology literature on mindfulness is flow (Sappington & Longshore, 2015). Many studies have reported a positive relationship between mindfulness and flow (e.g., Bernier, Thienot, Codron, & Fournier, 2009; Kaufman, Glass, & Arnkoff, 2009; Kee & Wang, 2008; Scott-Hamilton & Schutte, 2016), with one study suggesting a causal relationship (Aherne, Moran, & Lonsdale, 2011). A meta-analysis supported the relationship between mindfulness and the promotion of flow states, but due to potential bias and imprecise results the quality of evidence was assessed as low (Noetel, Ciarrochi, Van Zanden, & Lonsdale, 2017). However, when contextualizing mindfulness in its historical roots, utilizing mindfulness to pursue flow may be problematic.

At the core of Buddhist mindfulness is the intention to better understand and work with the mind to, ultimately, end dukkha (i.e., suffering or dissatisfaction). The key phrase here is intention as “intentions are considered the foundation of everything else in Buddhism” (Rosch, 2007, p. 262). The source of dukkha is tanha (often translated as craving, the literal meaning is thirst and represents conflict between how things are and how we desire them to be). A meta-analytic review on mindfulness and performance stated, “the pursuit of flow is not inherently a goal of mindfulness training, but rather awareness (and acceptance) of present-moment experience is the goal, combined with the ability to put attention where it needs to be put for the given task at hand” (Buhlmayer, Birrer, Rothlin, Faude, & Donath, 2017, p. 2319). With this mindset and approach, flow may become more accessible, but likely through an indirect route. This poster will explore how seeking flow through mindfulness may be analogous to tanha and provide scientifically-grounded, practice-based recommendations for understanding and capitalizing on the relationship between mindfulness and flow.

## 30

### DEVELOPING AND ASSESSING THE IMPACT OF A MENTAL TRAINING INTERVENTION TARGETING ATHLETES' PERFECTIONISTIC CONCERNS IN SPORT

*Michael Lizmore, University of Alberta, Canada;  
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Erin R. Brennan, University of Alberta, Canada*

**Objectives:** Perfectionism is one of the most studied personality characteristics in sport. In particular, heightened perfectionistic concerns (a sub-dimension of perfectionism) are widely recognized as maladaptive in sport. Despite this consensus there has been little applied research involving attempts to target or reduce athletes' perfectionistic concerns. The purpose of this study was to develop and assess the impact of a brief empirically-supported mental-training intervention for athletes that targets the reduction of perfectionistic concerns and attempts to foster a more positive mindset toward failure and mistakes in competition.

**Design:** A mixed-methods design was implemented whereby 16 competitive youth curling athletes were provided an intervention that was comprised of three 1-hour mental training sessions over a 3-weeks. The intervention was delivered in a wait-listed manner to two groups of participants over a 12-week time period as part of their developmental sport programming. Participants completed domain-specific measures of perfectionistic concerns four times throughout the study and engaged in semi-structured social validation interviews at the end of the study.

**Results:** Pre- versus post-intervention comparisons of perfectionism data indicated that athletes perfectionistic concerns were, on average, significantly lower following the intervention. Results of a thematic analysis supported the positive impact of the intervention and revealed that athletes attributed their involvement in the intervention with adaptive attentional focus, positive appraisals of failure, and improved self-treatment or self-attitude following failure or mistakes.

**Conclusions:** Together the results indicate that athletes' perfectionistic concerns appear to be amenable to change and may be impacted through a short-term intervention that specifically promotes the adoption of a positive mindset toward failure and mistakes. Future research that works towards developing guidelines for applied strategies that athletes, coaches, and sport practitioners can use to help athletes avoid, reduce, or overcome heightened perfectionistic concerns in sport may be worthy of consideration.

## 31

### DEVELOPMENT OF A CHECKLIST OF MENTAL SKILLS AND BEHAVIOR CHARACTERISTICS IN CLIMBING

*Miguel Santolaya, CPAD-UAM, Spain;  
Victor Rubio, Universidad Autonoma Madrid, Spain;  
Roberto Ruiz-Barquin, University Autonoma Madrid, Spain*

Climbing is a challenging sporting activity where both physical and psychological factors have proven to be notably demanding. Coaches usually claim that mental skills are as important as technical and physical skills and use estimations of such variables to predict success and drop out of young practitioners. However, estimations are based on implicit expert knowledge, making difficult replicability and validity of such estimations.

The aim of this study was to identify and operationalize psychological variables estimated by coaches and supposedly needed for high-performance climbers in order to create an assessment tool that provides information for the improvement of the climber's mental skills, increase performance and ease sports promotion.

For that purpose, four expert coaches in collaboration with Madrid's (Spain) Mountaineering Association were individually interviewed and participated in several focus group sessions. The topics discussed revolved around sport climbing, either on sight (first ascent), flash (previous information of the route) or boulder (climbing in a block without harness or rope) and the influence of the psychological variables in climbing performance. After three rounds, a set of psychological dimensions (i.e. problem-solving abilities, self-efficacy, risk management) and their operationalized outcomes were identified.

The result was the design of a checklist of psychological variables involved in climbing which can be used by coaches a) to identify the psychological demands of their athletes through the different training and development processes and b) to tailored mental skills improvement programs in climbing.

A final focus group session with experts tested comprehension, acceptance, and usability of the checklist, showing this tool may become a helpful instrument for climbing coaches to systematically and consistently assess pupils mental skills

### 32

#### **EFFECTS OF A MENTAL WARMUP ON THE WORKOUT READINESS AND STRESS OF COLLEGE STUDENTS**

*Judy Van Raalte, Springfield College, USA;*  
*Britton Brewer, Springfield College, USA;*  
*Christyan Gudjenov, Springfield College, USA;*  
*Mary Keeler, Springfield College, USA;*  
*Julie Reiner, Springfield College, USA;*  
*Alexis Stiefel, Springfield College, USA;*  
*Allen Cornelius, Fielding Graduate University, USA*

Recent research with competitive athletes indicates that completing a mental warmup prior to training sessions can boost mental readiness to perform and to use psychological skills to enhance performance (Haznadar, 2016). Learning such mental preparation skills may also be helpful for exercisers. That is, exercisers who experience a brief rehearsal of their exercise-related goals, attentional focus, self-talk, imagery, and arousal regulation may feel more prepared to workout. It is also possible that such preparation can reduce pre-workout stress. The purpose of this research was to explore the effects of a mental warmup on exercisers' mental readiness and stress level prior to working out. Undergraduate students (N = 41) were randomly assigned to mental warmup and control conditions. Participants completed demographic items and an exercise questionnaire that included a stress item, the three-item Mental Readiness Form (MRF; Krane, 1994), seven items pertaining to readiness to work out (i.e., the extent to which they are prepared, energized, calm, motivated, focused, thinking, and confident), one overall mental warmup item, and six items pertaining to readiness to use imagery, focusing skills, motivation skills, thoughts, and arousal regulation skills to enhance their workouts. After a five minute mental warmup (experimental group) or no mental warmup (control group), participants completed the exercise questionnaire a second time. Mental warmup participants reported significantly greater reductions in stress and improvements in mental readiness,

readiness to work out, and readiness to use mental skills to enhance the workout from pre-test to post-test than did the control group. The results suggest that the benefits of mentally warming up extend to the exercise domain and that a brief mental warmup increases readiness to work out and reduces stress prior to exercise.

### 33

#### **INCORPORATING YOGA INTO A D1 ATHLETICS SPORT PSYCHOLOGY PROGRAM**

*Ashley Samson, California State University, Northridge, USA*

The practice of yoga was first developed in India and has evolved over thousands of years. Yoga combines the use of poses, or asanas, and breath work to bring individuals to a place of calm stillness and mental clarity that allows one to become more aware of the world around them and to better navigate through that world. At its most basic level, yoga is designed to bring the body and mind into balance, which is something that all athletes at any level can benefit from. In addition to the various physical benefits that yoga can bring to athletes (i.e. increased flexibility, decreased injury risk, faster recovery times, better body coordination-to name a few), many athletes have taken up yoga in order to capture the cognitive and emotional benefits for their personal well-being, as well as increased sport performance.

The purpose of this lecture is to provide an overview of the process of incorporating yoga into the sport psychology program within a D1 collegiate athletics program. Audience members will be provided with an overview of the research supporting the psychological benefits of yoga practice, ideas on how to "sell" it to coaches and AD's, and a brief summary of the benefits reported from athletes on the four teams currently incorporating yoga into their sport psychology sessions. In addition, participants will be invited to participate in a brief yoga/breathing practice in order to experience some of the benefits firsthand that can come from such practices.

### 34

#### **MINDFUL COACHING: LEARNING MINDFULNESS TO IMPLEMENT WITH ATHLETES AND TEAMS**

*Thomas Minkler, Catholic University of America, USA*

The benefits of mindfulness practice for psychological wellbeing are well-documented (Carmody & Baer, 2008). Furthermore Sappington and Longshore (2015) note that improvements in flow, anxiety, mindfulness, and performance have been found following mindfulness training for athletes. As the body of research continues to expand, the demand for consultants with the skills necessary to deliver such training will also grow.

In order for coaches and consultants to most effectively train athletes in mindfulness, they must first cultivate a mindful way of living themselves and prioritize their own practice. This lecture will describe the course of my training in mindfulness and its impact both personally and professionally on my life as a collegiate lacrosse coach and active athlete (competing in triathlons and marathons). Using data from weekly mindfulness journals, I will share my own experiences learning Mindful Sport Performance Enhancement (MSPE). What I came to understand is that beyond formal exercises that help with focus and centering, every moment is an opportunity to be aware, non-judgmental, and curious about the unfolding of life's experiences. This talk will focus on

the feasibility for other coaches and consultants to similarly use the published intervention protocol (Kaufman, Glass, & Pineau, 2018), recordings of exercises, and home practice to learn these skills.

The lecture will also discuss specific opportunities for a “mindful coach” or consultant to then introduce mindfulness into the culture of a university athletics department, suggesting best practices for teaching mindfulness to individual athletes as well as teams. At the request of the head coach of a nationally ranked varsity women’s team, I facilitated an MSPE training group for her team in pre-season, and will present both the experience and results of this intervention. Finally, suggestions will be offered for how coaches can introduce mindfulness more informally for players on their own team.

### 35

#### PEER SUPPORT TEAMS FOR ATHLETIC THERAPISTS/TRAINERS

*Frances Flint, York University, Canada*

The potential psychological impact of critical events on Athletic Therapists/Trainers has not been extensively studied; however, there is anecdotal support for education in the management of critical incident stress (Louder & Stevens, 2012; Mazerolle et al., 2013). “Critical incidents are unusually challenging events that have the potential to create significant human distress and can overwhelm one’s usual coping mechanisms” (Everly & Mitchell, 2008). In the case of Athletic Therapists/Trainers, critical incidents may include the sudden death or catastrophic injury of an athlete; the loss of a colleague; or the performance of advanced care. In these types of acute situations, short term crisis interventions may help to stabilize and mitigate the psychological crisis response (Everly & Mitchell, 2008).

Short term crisis interventions provided by trained, similar others has gained popularity within various health care professions (EMS, nursing). While these similar others are not necessarily mental health professionals, they share common education, culture, and experiences. Peer support can assist individuals in psychological crisis recognize that this is a normal response to an abnormal event. The propagation of critical incident peer support programs has occurred across North America. Within Canada, the Mental Health Commission of Canada (MHCC) acted as a catalyst for improving mental health attitudes and the initiation of peer support in the mitigation of mental health issues. Critical incidents in sport have the potential to result in acute psychological reactions within the Athletic Therapy/Training community (Mazerolle et al., 2013). Thus, utilizing trained peers to help their colleagues through the initial crisis response is a logical progression. The development of Peer Support Teams has been endorsed by both the National Athletic Trainers Association (ATs Care) and the Ontario Athletic Therapist Association (AT 911).

### 36

#### “SHOULD I BE ABLE TO DO THAT?” A MINDFULNESS INTERVENTION CASE STUDY IN ADAPTED SPORT

*Margaret Smith, University of Alabama, USA*

Classification in Paralympic and adapted sport is a process rife with “uncontrollables,” as well a process in which perceptions and realities of what is actually controllable may vary greatly. Because classification in large part determines who an athlete’s competitors are, which teammates they will share playing time with, what roles they will serve in competition, and what coaches, teammates, and athletics programs in turn expect of them, getting “classed” and/or “re-classed” evokes deep feelings in many athletes in adapted sport.

This case study describes the use of a mindfulness intervention for two athlete getting “re-classed” in collegiate and international competition for wheelchair basketball and international competition for wheelchair rugby, respectively. Much research shows how mindfulness interventions can foster acceptance of the present moment - its contextual constraints and internal experiences - in ways that promote optimal performance (Gardner and Moore 2004; Ivarsson et al. 2015). In the classification process, however, it is often unclear what the “optimal performance” looks like. The mindfulness interventions took place with both teams - and more closely with each individual athlete - over the course of a season (Kaufman et al. 2017). This paper describes the classification process from the very different perspectives of each athlete in the context of their respective sports, disabilities, and prior roles on their teams. Their experiences suggest that mindfulness interventions may be promising for alleviating some of the anxiety associated with the classification and reclassification process.

### 37

#### THE EFFECTS OF INSTRUCTIONAL SELF-TALK ON QUIET EYE DURATION AND GOLF PUTTING PERFORMANCE

*Yonatan Sarig, Florida State University, USA;  
Montze Ruiz, University of Jyväskylä, Finland;  
Antonis Hatzigeorgiadis, University of Thessaly, Greece;  
Gershon Tenenbaum, Florida State University, USA*

While the literature on the effects of instructional self-talk on performance is comprehensive, a somewhat under-investigated subject is the underlying mechanisms of instructional self-talk. As of late, the trend has been shifted towards researching what are the motivational and attentional constructs at the base of self-talk. Potentially, one such attentional construct is the quiet eye; the final gaze fixation on a target before the execution of task-oriented movement. Since the duration of the quiet eye is found to be associated with better performance, and interventions aimed at prolonging the quiet eye are always sought after, the aim of this study was to investigate whether instructional self-talk can prolong the quiet eye duration and thus, improve performance.

For this purpose, 30 participants ( $M = 24.37$ ,  $SD = 4.99$ ) that were novices in golf putting were recruited. The participants took part in a golf putting trial, while half of them underwent a short-term instructional self-talk training using dart throwing. The quiet eye duration was measured using a SensoMotoric Instruments (SMI) eye tracker while performance was measured using the index of putting proficiency. Results

showed that instructional self-talk had a positive effect on quiet eye duration and performance. However, no correlation between quiet eye duration and performance was found. The results indicate that quiet eye is a possible attentional mechanism of self-talk and might be used in quiet eye training.

### 38

#### **THE EFFECTS OF PETTLEP IMAGERY ON BARBELL BENCH PRESS PERFORMANCE**

*Morgan Eckenrod, University of Tennessee, USA;*  
*Robin Vealey, Miami University, USA;*  
*Rose Marie Ward, Miami University, USA;*  
*Robert Weinberg, Miami University, USA*

Imagery has been widely studied across a multitude of performance domains (Vealey & Forlenza, 2015; Weinberg, 2008), however, there is little research exploring PETTLEP imagery's effect on performance. PETTLEP imagery stands for Physical, Environmental, Task, Timing, Learning, Emotion, and Perspective, which aligns with the theory of functional equivalence (Holmes & Collins, 2001). Moreover, only one intervention study has examined PETTLEP imagery's effect on strength training performance (Wright & Smith, 2009). Using a population not engaged in a strength training program, researchers found the PETTLEP + physical practice group improved to a statistically greater degree than the PETTLEP imagery group on bicep curl performance (Wright & Smith, 2009). The purpose of the current study was to examine the effects of PETTLEP imagery on barbell bench press performance of individuals with strength training experience (two to three days a week for at least six weeks). A total of 18 (11 females, 7 males) individuals participated in this intervention study (mean age = 21.67). For the pre-test performance measurement, participants performed one repetition maximum (RM) and as many repetitions as possible at 80% of their one RM. Participants were randomly assigned to the PETTLEP imagery (n = 6), physical practice (n = 5), or PETTLEP imagery/physical practice combination group (n = 7). Following the conclusion of a four-week intervention participants completed the post-test performance measurement (one RM and 80% of their pre-test one RM). Mixed AONVAs revealed that all three intervention groups improved significantly from pre-test to post-test on the one RM (p = .001) and number of repetitions at 80% of their pre-test one RM (p < .001). However, there were no significant differences between groups based on the intervention across time. Insights on conducting intervention studies and implications for imagery interventions in a strength and conditioning setting will be highlighted.

### 39

#### **THE GLOBAL APPROACH OF PSYCHOLOGICAL TRAINING AND COUNSELING (GAPTAC): A NEW EVIDENCE-BASED SPORT PSYCHOLOGY FRAMEWORK FOR OPTIMAL PERFORMANCE**

*Serge Lacoste, Self-employed, USA*

Recently many colleagues complained that applied sport psychology has not gotten a strong theoretical and practical model to guide the practice of sport psychology consultants that it could give them a greater scientific legitimacy face to athletes, coaches and sport administrators expectations (e.g. Winter & Collins, 2014; Aoyagi, Portenga, Poczwardowski, Cohen & Statler, 2012).

Based on our sport psychologist experiences and on the actual knowledge of applied sport psychology research, we brought together the various variables that interact in the activities of the elite athlete. Our review of literature shows that the identified psychological determinants have direct and indirect linkages with the sport performance, which adequately confirms our evidence-based findings.

Our goal is to propose a comprehensive and complete theoretical model. This model describes and explains the interactions and functioning of psychological elements of sport performance. The interest is to give the opportunity to build a complete and efficient framework for any sport psychology consultant. By assessing the component of the GAPTAC model, the sport consultant can determine the goals and the content of his/her future interventions. We attempt to serve and advance the discipline as well as every person interested by these questions by refining the theoretical data, and by improving the mental training and psychological counseling techniques applied to the athletes.

### 40

#### **THE USE OF REFLECTIVE PRACTICE WITH UNDER 16S FIELD HOCKEY PLAYERS**

*Francesca Gwynne, Southampton Solent University, UK;*  
*Matt Johnson, Southampton Solent University, UK*

Within sport, reflective practice has been investigated with coaches (Partington, Cushion, Cope & Harvey, 2015), sport psychology practitioners (Cropley, Miles, Hanton & Niven, 2007) and on occasion athletes (Faull & Cropley, 2009). When used with athletes, a positive relationship between reflective practice and psychological attributes such as self-efficacy (Neil, Cropley, Wilson & Faull, 2013) and self-awareness (Faull & Cropley, 2009) has been observed. However, researchers have stated that further research is required to understand the benefits of reflective practice and how it can be integrated into sport (Middelmas & Harwood, 2018).

This study aimed to examine the effects of a 6 week reflective practice intervention on self-confidence and characteristics of a successful hockey player that were self-determined. Participants were fifteen, under 16 club academy hockey players. Prior to the intervention period, baseline measures of confidence was taken using the Trait sport-confidence scale for children (Psychountaki, 1998) along with performance profiles (Butler & Hardy, 1992). Players were randomly assigned to two groups: an intervention group and a control group. The intervention group took part in a reflective practice programme based on the protocol suggested by Neil et al (2013) whilst the control group continued with normal training. Post intervention, confidence measures and performance profiles were repeated. Subsequently, players in the intervention group participated in a focus group to discuss the intervention and any possible effects they experienced.

Results indicated significant improvements to positive thoughts and perception of ability in the intervention group when compared to the control group. However, no significant differences emerged when comparing general self-confidence and self-confidence in unfavourable situations. The focus group revealed that individuals enjoyed the intervention, although consideration needs to be given to the methods used by players when reflecting independently. Findings suggest that more research needs to be conducted into the delivery of reflective practice interventions and the standardization of intervention procedures.

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### USING EXPOSURE AND RESPONSE PREVENTION (ERP) INTERVENTIONS TO ENHANCE ATHLETIC PERFORMANCE: THREE CASE-EXAMPLES

*Bjorn Bergstrom, Pacific University, USA;  
Anastasia Jones, Pacific University, USA;  
Tamara Tasker, Pacific University, USA*

Unlocking the laws of performance-enhancement is the ultimate target of any human research domain. Exposure and Response Prevention (ERP) has long been the gold-standard of treatment for nearly all anxiety disorders within the world of clinical psychology (Rosqvist, 2005). In contrast, the traditional standard of 'treatment' for performance-enhancement in sports psychology has primarily focused on positive-cognitive-focus. However, clinical research has demonstrated that intentionally facing ones fears results in decreased levels of performance-inhibiting anxiety, boosting performance over time (Foa & McLean, 2015), which can be adapted for athletic training (Gustafsson, Lundqvist & Tod, 2016). The historical barrier between clinical and sports psychology has been perpetuated by the assumptions that the mechanisms of change were different for each respective population, given the differential targets of treatment and levels of functioning. However, there has been little research that actually supports this assumption. On the contrary, it is common practice in many fields to utilize the mechanisms of change embedded in ERP for performance enhancement, across the range of high-to-low functioning (e.g., military, firemen, and police training, in addition to clinical populations) (Rauch, Eftekhari, Ruzek, 2012).

This presentation will outline the empirical research that defines ERP, identify the active ingredients, explain the mechanisms of change, and will demonstrate how these principles can be applied to high-functioning high-performing populations. We will provide three de-identified cases of high performing athletes who sought treatment for performance-impairing anxiety, and recovered and improved via exposure-based interventions. These cases will be used to demonstrate how ERP can enhance resiliency, lower anxiety, and decrease 'cheat-methods' (i.e., safety-behaviors) that ultimately impair long-term performance. These cases will identify the active ingredients in ERP that explain the athlete's boost in performance, and demonstrate how ERP may provide greater outcomes than the current interventions or standards of practice in sports psychology and consulting.

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### WELL-BEING THERAPY: AN APPROACH TO INCREASE ATHLETE WELL-BEING AND PERFORMANCE

*David Schary, Winthrop University, USA;  
Brian Souza, Framingham State University, USA*

Well-being is a complex, multidimensional construct that encompasses emotional, psychological, and social functioning (Diener et al., 2010; Keyes, 1998; Ryff, 2014). High well-being helps athletes perform optimally in high-pressure environments, overcome obstacles, and enjoy long and successful careers (Lundqvist, 2011). It is important to recognize that athletes experience well-being outside of sport (i.e., global) and as an athlete (i.e., sport-specific). Although Lundqvist (2011) proposed a model explaining the relationship between global and sport-specific well-being, to date, there are no interventions applying the model in an effort to increase athlete well-being. As a result, no specific strategies exist for psychologists, counselors, or Certified Mental Performance Consultants to

directly address athlete well-being. Well-being therapy (WBT) is a successful, short-term psychotherapeutic strategy for increasing psychological well-being by emphasizing self-observation and structured daily usage (Fava, 2016). In the initial phase of WBT, the client uses reflective journaling to identify and evaluate moments of well-being. Once the client can recognize moments of well-being, he or she then identifies thoughts and behaviors that impair well-being. After the client can recognize the impairments, the practitioner then suggests strategies to improve and maintain well-being. Although WBT was originally developed as a clinical treatment for depression, randomized controlled trials indicate that it may be suitable for promoting well-being in non-clinical and educational settings (Fava & Ruini, 2014; Ruini et al., 2009; Ruini, Belaise, Brombin, Caffo, & Fava, 2006). Thus, WBT may be an effective strategy for increasing well-being among athletes in clinical and educational settings. The purposes of this poster are fourfold: (a) explain the importance of increasing athlete well-being, (b) describe the practice of WBT, (c) give suggestions for implementing WBT with athletes, and (d) highlight opportunities for future mental performance consulting research.

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### WHAT PSYCHOLOGICAL SKILLS TO INCLUDE IN A PST PROGRAM FOR ATHLETES WITH A DISABILITY

*Kieran Hawksley, University of Windsor, Canada;  
Krista Chandler, University of Windsor, Canada;  
Todd Loughhead, University of Windsor, Canada*

The purpose of this qualitative study was to understand, from the athletes' and coaches' perspectives, which psychological skills should be targeted in a PST program for athletes with a disability. Elite athletes with a disability often have the opportunity to enhance their experience through PST with a sport psychology consultant. However, few amateur athletes with a disability have the same opportunity to access these beneficial support services. An avenue to assist all athletes with a disability in enhancing sport performance and sport satisfaction is through online PST programs. Focus groups with elite athletes (n = 5) with a disability as well as coaches (n = 5) of athletes with a disability were conducted in order to determine which psychological skills and what delivery methods would best facilitate the learning and adoption of psychological skills. Imagery and attentional control emerged as important psychological skills for both coaches and athletes. Additionally, themes of interaction among peers and group activities emerged as effective online delivery methods. Common themes among both groups of participants as well as unique themes will be discussed. Determining which psychological skills are important to this population, along with the best mode of delivery is the first step in developing an effective online PST program.

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#### Diversity & Culture

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### A MUSLIM, A CHRISTIAN, AND A JEW WALK INTO A MENTAL TRAINING SESSION: BEST PRACTICES FOR ATHLETE WELL-BEING

*Megan Granquist, University of La Verne, USA;  
Zandra Wagoner, University of La Verne, USA;  
Rayna Harrison, University of La Verne, USA*

A Muslim, a Christian, and a Jew walk into a mental training session and sit beside an Atheist, a Mormon, and a Sikh; the

sport psychology professional provides mental skills training for each of these athletes from a holistic perspective with an awareness of interfaith concepts. As our athlete population diversifies, knowledge of interfaith concepts is essential in providing quality care. Therefore, this applied educational session will focus on how we, as sport psychology professionals, interact with and provide sport psychology services to our athletes. Specifically, this session will include discussion of athletes' religious/spiritual practices regarding diet, clothing, and medical treatment; and will provide applied strategies for working with all athletes. At the conclusion of this session, participants will be able to: 1) Describe basic interfaith concepts related to athlete well-being; 2) Explain how sport psychology professionals can incorporate an awareness of interfaith concepts into professional practice; 3) Identify strategies to provide accommodations based on athletes' religious/spiritual practices.

## 45

### **MOVING THE CHAINS: ATHLETES USING THEIR PLATFORM TO CREATE SOCIAL CHANGE**

*Stephany Coakley, Maximum Mental Training Associates (MMTA), USA;*

*Andrew Mac Intosh, RISE, USA;*

*Eric Martin, Boise State University, USA*

At this moment in American history, athlete activism is at an all-time high. Athletes across the spectrum of participation have become more outspoken about issues of racism, police brutality, gender inequality and other causes that promote social, political and environmental equality. For many athletes who support social justice causes, it is at great personal and professional risk. What causes an athlete, team or organization to confront the social injustice that permeates our society? What prevents others from taking a stand?

Beginning March 17, 2017 through December 11, 2017 the actions in which athletes were involved were collected and analyzed – more than 1,100 reports from mainstream media, social media and other sources. Six categories of athlete activism emerged during the analysis: collective action, community outreach, financial contribution, protest, public statement and special apparel.

Interviews were also conducted with current and former athletes, from a variety of sports, ethnic and racial backgrounds, and ages, about the causes they champion. We examined traits, values and experiences of athlete activists who engaged in at least one category of activism. Athlete profiles were created, analyzed and coded for specific content. It became clear that one of the primary goals that athletes had was raising awareness about issues related to injustice.

## 46

### **RETHINKING DIVERSITY AND INCLUSION IN THE AASP MEMBERSHIP: RESULTS FROM THE 2017 DEMOGRAPHIC SURVEY**

*Amanda Perkins-Ball, Rice University, USA;*

*Robert Owens, University of Western States, USA;*

*Leeja Carter, Long Island University - Brooklyn, USA;*

*Elizabeth Lange, William Peace University, USA*

AASP's Position Statement on Human Diversity states, "we strive to promote inclusive environments characterized by respect, understanding, and acceptance of cultural similarities

and differences in all aspects of our operation... we are committed to our continued growth around multicultural issues and are intentional about integrating diversity into all aspects of our work" (Association for Applied Sport Psychology, 2018). In line with this mission, the Diversity Committee implemented an initiative to obtain AASP members' cultural demographics through an annual survey. Results from the 2017 survey indicate the association lacks diversity in terms of race, ethnicity and sexual orientation. Despite the lack of diversity, the survey revealed a number of members who have multiple marginalized and intersecting identities.

A panel involving five members of the AASP Diversity Committee (one as moderator) will share the results from the first annual survey, discuss its implications, and will offer recommendations for future survey items in hopes to obtain a more robust sampling of AASP membership. The panel will have a conversation with the audience to discuss strategies to engage and retain members from diverse cultural backgrounds. Current recommendations include how to support and encourage SIG and committee initiatives, how to address areas of professional growth and development for members, and how to help AASP grow as an organization in a way that best reflects and speaks to the populations the association serves.

## 47

### **THE PRECARIOUS BALANCE OF ADDRESSING MICROAGGRESSIONS IN SPORT**

*Alexander Yu, University of California, Davis, USA*

Many Sport Psychology Consultants (SPCs) value multiculturalism in sport, want to make sport more inclusive for all participants, and desire to advocate for social justice issues that occur in their work. However, despite this, many SPCs may fear addressing social justice issues, such as microaggressions, because it can come with the risk of losing valuable consulting relationships and employment opportunities. This lecture aims to provide a real-life example of how an SPC might talk about microaggressions while still preserving relationships with athletes, coaches, and a team. The lecturer will describe his experience addressing a microaggression against women that occurred within a Men's NCAA Division I team. The lecturer will highlight how utilizing the working alliance, showing genuineness and vulnerability, respecting athletes' autonomy, timing, and providing a space for dialogue were used to enable a productive and open conversation about microaggressions. The lecturer will reflect on strengths and weaknesses of his approach and provide suggestions about how other SPCs may address microaggressions within their own work contexts.

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### **Elite/Pro Sport**

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## 48

### **2018 FEI WORLD EQUESTRIAN GAMES: A CANADIAN PERSPECTIVE ON MENTAL SKILLS TRAINING IN HIGH PERFORMANCE EQUINE SPORTS**

*Chantale Lussier, Elysian Insight, Canada*

Equestrian sports are highly athletic, demanding rider skills, fitness, balance and strength (Dashper and St John, 2016). Less understood, are the psychological demands

at the heart of these disciplines. Jumping, dressage, and para dressage are visibly different being the only Olympic level sport involving animals and where men and women compete equally (Dashper and St John, 2016; Beauchamp and Whinton, 2005). In equestrianism, emotional composure is primordial (Wolframm, Shearman, Mickleright, 2010). The unique partnership between rider and horse unveils the effects of emotion in competition (Tanenbaum, Loyd, Petty, Hanin, 2002). It is important for riders to recognize that their emotions affect not only their own performance but that of the horse and that this partnership is naturally anxiety inducing (Tanenbaum, et al. 2002). Collaboration between human and animal is vital, along with highly trained self-regulation skills. To this point, considerable differences have been observed in pre-competitive states of somatic arousal and self-confidence between elite and non-elite riders (Wolframm and Mickleright, 2009). Furthermore, as Wolframm and Mickleright (2010) suggest, where memory is tested, the capacity to remain focused is strongly related to performance results. To date, mental skills training has been shown to be of benefit in competition across many sports, yet limited research exists investigating its use in equestrian sports (Wolframm and Mickleright, 2011). The implications of this for practitioners with opportunities to work with equestrian athletes, is that little evidence-based data exists to inform interventions. As such, the purpose of this lecture is to share the author's experiences as Mental Performance Specialist with Equestrian Canada's National Teams on the road to the 2018 FEI World Equestrian Games. Interventions completed, processes explored, and main lessons learned will be shared to contribute to this important conversation on mental skills interventions in high performance equestrian sports.

## 49

### APPLYING THE SOCIAL IDENTITY THEORETICAL APPROACH TO SPORT PSYCHOLOGY SUPPORT OF THE SCOTLAND ROWING TEAM

*Vista Beasley, Georgia Southern University, USA*

In some sport contexts, teams are comprised of members who typically compete against each other, yet are temporarily drawn together as teammates (e.g., All-Star competitions; Olympics). The purpose of this presentation is to demonstrate application of the social identity theoretical framework by a sport psychology practitioner to enhance social identification aspects of teams assembled in this manner. This theoretical approach was developed by European researchers in the domain of social psychology, emphasizing the influence of group membership on individuals' behaviors (Tajfel, 1974). Sport psychology researchers have recently endorsed application of this framework to endeavors in the sport realm (Rees et al., 2015). In conducting a program evaluation of the Scotland Rowing Team, observations were made through this theoretical lens. Results included recommendations for team management, coaches, and peer leaders to develop context-specific social identity content for the team (Fransen et al., 2015); rapidly increase social identification via personal-disclosure mutual sharing interventions (Barker et al., 2014); and employ social creativity as a protective factor against social threats (Haslam & Reicher, 2006).

## 50

### BULL DURHAM IN REAL LIFE: GRADUATE STUDENT REFLECTIONS FROM WORKING IN MINOR LEAGUE BASEBALL

*Robert Hilliard, West Virginia University, USA*

There have been numerous calls in the sport psychology literature for increased dissemination of reflective pieces on applied sport psychology (ASP) practice (e.g., Anderson et al., 2004; Cropley et al., 2010). In addition, several authors have stated that individuals entering the field of ASP need to understand what actual consulting looks like (e.g., Anderson, 2000; Cropley et al., 2016). Furthermore, there are few reflections from the perspective of the student consultant (cf. Christensen & Aoyagi, 2014; Cropley et al., 2007; Tonn & Harmison, 2004). The purpose of this presentation is to provide a reflective account of an ASP graduate student's experience working in minor league baseball. The focus of this presentation will be on the major lessons learned from the experience and how these lessons have helped with the academic and applied development of the student moving forward. Additionally, details describing the daily activities of consulting in this atmosphere will be discussed. Four primary themes surrounding lessons learned arose from the reflections: maintaining ethical practice, navigating appropriate self-disclosure, the necessity to be highly attuned to cultural factors, and balancing emotional labor and professionalism. At the core of all of these themes was the central concept of consultant self-awareness. The presentation will conclude with implications and recommendations for graduate student training.

## 51

### EXPLORING THE INTERSECTION OF ORGANIZATIONAL STRUCTURE AND SOCIAL SUPPORT IN OLYMPIC SPORT

*Zoe Poucher, University of Toronto, Canada;  
Katherine Tamminen, University of Toronto, Canada*

Introduction: Elite athletes experience stress based on their sport participation, and social support is an important resource for athletes coping with stress (Gould et al., 1993). However, athletes also experience stress related to the sport organizations in which they train and compete (Fletcher et al., 2012). However, there is little research which has examined the organizational structures that may act as facilitators or barriers to social support provision among elite athletes and their support providers. Therefore, the purpose of this study was to examine how organizational structures influence the provision and reception of social support between female Olympians and their main support providers. Method: Five female Olympians and their main support providers each engaged in one semi-structured interview, and the resulting transcripts were thematically analyzed (Braun & Clarke, 2006). Results: Athletes who received more funding reported that they perceived more support available from more sources, and they perceived having more support while competing abroad. Additionally, receiving Olympic accreditations appeared to promote the provision of social support, which participants thought was associated with better athletic outcomes. The results of this study also identified the range of organizations that athletes receive support from, highlighting the value of intra-organizational relationships which share the task of providing various forms of support to elite female athletes.

Applied Implications: The results of this study indicate that sport organizations should assist accredited and non-accredited coaches in meeting the support needs of their athletes either in person or remotely. One way to do this is through the implementation of coach education session on support provision. Additionally, organizations currently supporting Olympic athletes should foster relationships with other sport organizations, which will allow them to streamline their support provision preventing the overlap of provision between organizations, and provide even greater levels of support to both athletes and coaches.

## 52

### **FINDING A BALANCE: HOW CANADIAN OLYMPIC AND PARALYMPIC ATHLETES PREPARED FOR LIFE DURING AND AFTER PYEONGCHANG**

*Nicole Dubuc-Charbonneau, Laurentian University, Canada;  
Rolf Wagschal, Canadian Sport Institute Ontario, Canada*

Many elite athletes spend years training for the opportunity to compete at the Olympic and Paralympic Games. Researchers have highlighted that the transition period following the Games can present unique challenges which can be difficult for some athletes to overcome. As such, they have emphasized the importance of developing preparation and coping strategies to achieve sport-life balance (Jackson, Mayokki, & Dover, 1998; Stephan, 2003). To provide such resources for athletes, programs such as Game Plan have been put in place to offer Canadian national team athletes wellness programs in order to help them “live better and more holistic lives” by focusing on health, education and career opportunities (Game Plan, 2018). The current study is a Game Plan initiative and a continuation of research conducted following the Sochi 2014 Games. Specifically, the purpose of this research project is to explore athletes’ experiences planning and preparing for life after the Games in PyeongChang, South Korea. More specifically, this study seeks to explore the role that sport-life balance plays on athletes’ preparation leading up to the Games, their post-Games career planning, and actual performance during the Games. Using a mixed-methods approach, consisting of a short quantitative questionnaire, and targeted qualitative interviews, the study will highlight overall trends pertaining to post-Games transition and describe the experiences of Olympic and Paralympic athletes who are retiring or continuing in their sport by exploring themes related to support, balance, post-Game life and plans, lessons learned and recommendations for future athletes. As such, findings can help coaches and practitioners become more aware of athletes’ needs and implement key strategies during their competitive career to help guide them toward successful post-Games transition.

## 53

### **MAJOR LEAGUE BASEBALL PITCHERS’ PERFORMANCE AGAINST PREVIOUS TEAMS**

*Andrew Friesen, Barry University, USA*

Major league athletes often change from team to team. This occurrence can generate a variety of emotions when the player has opportunity to play against their former team (Gagnon, 2015). A common belief in sports is that players desire to have exceptionally better performances against teams that they have previous played for (e.g., James 2017, Jerez,

2017). However, as of yet, this belief has yet to be tested. The current study compared major league baseball pitchers’ career performance statistics to performance statistics against teams they have previously played for. An analysis of 229 pitchers indicated that they played significantly better against former teams as indicated by nine common pitcher performance metrics: Earned run average (ERA); opponents’ batting average (AVG); walks plus hits per inning (WHIP); opponents’ on-base percentage (OBP); opponents’ slugging average (OPS); opponents’ on-base percentage plus slugging (OPS+); strike-outs per nine innings pitched (K/9); walks per nine innings pitched (BB/9) and hits per nine innings pitched (H/9). The authors present the findings within emotion-performance theory (Lazarus, 1999) to explain the mechanism to this effect. The authors conclude with a discussion on how sports psychology has much to offer the field of sports analytics. Specifically, by contextualizing performance analytics within sports psychology theories, new interventions can be developed that are applied systematically throughout a sports team organization.

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### **PROVISION OF SPORT PSYCHOLOGY SERVICES IN PROFESSIONAL BASEBALL**

*Han-Ni Peng, National Taiwan Sport University, Taiwan;  
Likang Chi, National Taiwan Normal University, Taiwan;  
Chia-Hui Liu, Chia Nan University of Pharmacy and Science,  
Taiwan;  
Yao- Chung Huang, National Taipei University of Technology,  
Taiwan;  
Chiung-Huang Li, Ming Chuan University, Taiwan*

Delivering effective sport psychology programs in competitive professional baseball as a female sport psychology consultant is a challenging task. There are only few models of sport psychology services in professional baseball available to the field. Following the key components of Poczwadowski and Sherman’s (2011) and Poczwadowski, Sherman, and Ravizza’s (2004) sport psychology service delivery models, this paper provides a personal account of 5- year experience of sport psychology services in professional baseball. Guidelines including professional philosophy, making contact, ranges of services, intervention implementation, assessment, and program and consultant evaluation by using The Sport Psychology Consultant Evaluation Form (Partington and Orlick, 1987) are provided. Complex issues, challenges, and coping strategies for sport psychology consultants working and traveling with professional baseball players are discussed as well.

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### **SPORT PSYCHOLOGY CONSULTATION FOR THE 2017 UNIVERSITY OLYMPIAD GAMES (UNIVERSIADE) GOLD MEDAL SOCCER TEAM**

*Yoichi Kozuma, Tokai University, Japan;  
Junichi Miyazaki, Japan*

This presentation is on the sport psychology consultation provided to the gold medal soccer team for 2017 Universiade Games, also known as the World University Olympiad Games or World Student Games. The purpose of this applied research study was to explore effectiveness of the psychological skill training and consultation provided to the



national men's soccer team from Japan who competed in the world championship Universiade Games. Over the course of two years, a standardized Japanese sport psychological test call the Diagnostic Inventory of Psychological Competitive Ability for Athletes (Tokunaga, 2001) was administered as a pretest before the consultation work began, administered again just before the Universiade Games, and once again as a posttest. Also known as DIPCA 3, the test evaluates an athletes' psychological aptitude of mental skills and mental toughness using 18 factors. In addition to DIPCA 3, consultation work was provided six times over the same two-year span at the national team's training camps and games. The main objective for providing consultation was to support performance enhancement. Psychological skills for sports and life management were introduced in a seminar format and the athletes were instructed to apply what they have learned into their practice during their training, camps, games, and daily lives. At the training camps and games, the psychological skills training started before breakfast with 30 minutes of exercise and self-conditioning skills. These skills included: Relaxation, Psyching-up, Visualization, Concentration & Focus, Positive thinking, Self-talk, Communication & Teamwork, and Goal setting. Prior to practices and games, relaxation and psyching-up programs with music were conducted. Data analysis of DIPCA 3 showed improvement for the overall total score of the 18 factors for each athlete. The study supports the effectiveness of psychological skill training and consultation support as a positive influence on the outcome of the games.

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POSTER WITHDRAWN

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#### THE UTILITY OF COGNITIVE ASSESSMENT IN THE NATIONAL FOOTBALL LEAGUE

Scott Goldman, University of Michigan, USA;  
Alex Auerbach, University of North Texas, USA;  
James Bowman, Great Neck Public Schools, USA;  
R. Thomas Boone, University of Massachusetts, Dartmouth, USA

In the National Football League (NFL), many variables have been investigated for predictive validity vis-à-vis player selection/development and performance. Although improvements have been made in the measurement of physical and psychological traits and abilities, the current predictors in use only account for a modest amount of variance in outcomes of relevance in the NFL (Mirabile, 2005; Lyons, Hoffman, Michel, & Williams, 2011). In this lecture, the presenters will describe a study in which scores on a cognitive measure were compared to performance outcomes in the National Football League (Bowman, Boone, Goldman & Auerbach, 2018). Specifically, cognitive ability scores were obtained from 143 NFL athletes and were compared to performance statistics. Based on hierarchical multiple regression analyses and zero-order correlations, statistically significant relationships were found between cognitive factor scores and global measures of player value (i.e., Weighted Career Approximate Value) as well as position-specific statistics (e.g., sacks, rushing yards, etc.). The presenters will highlight significant findings from this investigation and discuss future directions for research. The presenters will also discuss how incorporating specific cognitive assessments in professional sports allows for better understanding of

how elite athletes think, learn, and process critical game information. Finally, they will provide a model for responsible and ethical use of psychological instruments to support the selection and coaching processes in professional sports.

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#### TWEET WISELY: EXAMINING THE RELATIONSHIP BETWEEN TWITTER USAGE AND THE PERFORMANCE OF ATHLETES COMPETING AT THE PYEONGCHANG OLYMPIC GAMES

Nicole Forrester, Ryerson University, Canada

With the advent of social media, the use of Twitter is quickly being employed by athletes and encouraged as a means to market themselves and their sport organization. While, researchers have looked at the potential marketing influence Twitter may offer, few studies have considered the influence of Twitter usage on performance. The purpose of this study is to examine the relationship between athletes' use of Twitter and their performance during the Pyeongchang Olympic Games. Specifically, this study seeks to understand: (a) What if any, is the difference in the frequency of Twitter usage between successful and unsuccessful athletes?; and (b) What are the similarities and differences between successful and unsuccessful athletes, in the content they tweet? As this is the first study to empirically explore the relationship between Twitter usage and performance, this presentation will offer recommendations regarding best practices in social media usage for athletes, coaches and sport organizations, as well as future directions in research.

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#### Exercise/Health/Fitness

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#### A SCHOOL-BASED INTERVENTION PROGRAM IN PROMOTING MODERATE-TO-VIGOROUS PHYSICAL ACTIVITY

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Masato Kawabata, Nanyang Technological University, Singapore;  
Nikos Chatzisarantis, Curtin University of Technology, Australia

Regular participation in moderate-to-vigorous physical activity (MVPA) is important to manage obesity. Physical education (PE) is considered to play an important role in promoting lifelong participation in physical activity (PA) because cost-effective interventions can be implemented in PE. Therefore, the present study aimed to investigate whether a school-based intervention targeting salient PA benefits and barriers grounded on the theory of planned behavior (Ajzen, 1991) would promote junior high school student's participation in MVPA.

After obtaining consent forms, 171 junior high students (male = 84) from 3 schools underwent the control condition followed by the intervention condition. Both the conditions consisted of PE lessons twice per week over 4 weeks. In the control condition, PE teachers encouraged students to participate in PA during leisure time without providing persuasive messages. While in the intervention condition, PE teachers delivered persuasive messages that targeted the salient benefits and barriers associated with PA to the students at

the last 5 to 10 minutes of each PE lesson. PA levels over a week were measured objectively with wrist-mounted accelerometers (Baseline, Post 1, and Post 2) in each condition. A 2(condition) x 3(time) x 2(normal vs. overweight/obese weight) mixed multivariate analysis of covariance was conducted on weekday and weekend MVPA data from 53 participants (male = 18, female = 35; Mage = 13.5, SD = 0.6) who had no missing MVPA data.

A significant difference was observed in the weekday MVPA between intervention and control conditions,  $F(1, 100) = 22.40, p = .028, \eta p^2 = .14$ . It was found that the weekday MVPA in the intervention condition ( $M = 31.12, SD = 35.97$ ) was significantly higher than that in the control condition ( $M = 28.39, SD = 20.10$ ). This result indicated that the school-based intervention was effective to promote junior high school's participation in the weekday MVPA.

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### **AN EXAMINATION OF THE SOURCES OF SELF-EFFICACY IN NOVICE AND ELITE RUNNERS THROUGHOUT TRAINING: A MIXED METHODS STUDY**

*Amber Shipherd, Texas A&M University - Kingsville / Next Level Mind Consulting;*  
*Kelly Renner, Franklin University;*  
*Ashley Samson, California State University, Northridge;*  
*Chelsea Duncan, Eastern Illinois University*

Self-efficacy, or one's belief in their ability to produce desired effects by their actions, affect the tasks an individual chooses to pursue, the amount of effort put into those tasks, and persistence in the face of obstacles and challenges (Bandura, 1997). Self-efficacy beliefs can be particularly important in running tasks, given the longer term nature of running races and the subsequent increased potential for obstacles and setbacks. In general, the research on self-efficacy beliefs and performance on running tasks has found a positive relationship (e.g., Feltz, Short, & Sullivan, 2008; Martin & Gill, 1991; Okwumabua, 1985). However, very few studies have examined how self-efficacy and the sources of self-efficacy information change over time. Therefore, this study aimed to extend Samson and Stewart's (2014) research by examining a larger sample of runners at all levels of experience and training for various race distances. Participants ( $n = 78$ ) beginning training for a race of any distance completed online questionnaires and open-ended questions at three time points during their training and once within one week following the race. No significant differences were found in rating of self-efficacy between levels of experience or race distances. An RM ANOVA and post hoc test results indicated self-efficacy to overcome barriers significantly increased as runners progressed through training  $F(2,90) = 6.18, p < .01, \text{partial } \eta^2 = .22$ . Results from open-ended questions suggested that participants, regardless of level of experience or the race distance, most frequently cited past performance experiences (or lack thereof) and physiological states as sources most influencing their self-efficacy beliefs at all time points. Interestingly, however, results from a ranking task revealed that affective states received high rankings during the initial stages of training and also following the race. Implications for runners, coaches, and sport psychology practitioners will be discussed.

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### **EFFECTS OF ACUTE EXERCISE ON ATTENTION AND DISCRIMINATION ABILITY IN CHILDREN WITH LEARNING DISABILITIES**

*Chienchih Chou, University of Taipei, Taiwan*

This study was conducted to determine the effects of acute aerobic exercise on executive function in children with learning disabilities. Forty and three children with learning disabilities were randomly assigned into exercise or control groups. The participants in the exercise group performed a moderate intensity aerobic exercise for 30 min, whereas the control group watched a running/exercise-related video. Neuropsychological tasks, the Determination Test and the DAUF Sustained Attention Test, were assessed before and after each treatment. The results indicated that acute exercise facilitated performance on the Determination Test and DAUF Sustained Attention Test, particularly in terms of the accuracy rate and reaction time, whereas no such influences on performance were found in the control group. Our initial findings suggest that acute exercise allocates resources of attention and discrimination ability, which may be associated with exercise-induced dopamine release. Therefore, further studies are encouraged in order to determine the efficacy of acute exercise on executive function in children with learning disabilities.

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### **'HITTING THE WALL' AND COGNITIVE STRATEGIES USED DURING THE MARATHON: ANALYSIS OF POLISH MARATHON RUNNERS**

*Dariusz Parzelski, SWPS University of Social Sciences and Humanities, Poland;*  
*Natalia Pawelska, SWPS University of Social Sciences and Humanities, Poland*

Running, cycling and swimming are one of the most popular forms of leisure time activities in Poland (ARC Rynek i Opinia, 2013; ARC Rynek i Opinia, 2015). Growing numbers of people compete in 5 km and 10 km run as well as in marathons. Finishing a marathon requires a lot of effort, therefore a physical and psychological crisis is highly probable to occur, mostly among amateurs. The aim of this study is to describe 'hitting the wall' phenomenon and define the cognitive strategies, which are used by competitors while running and 'hitting the wall'. In the present study two main cognitive strategies are taken into analysis: association and dissociation, which were distinguished by Morgan and Pollock (1977). 162 runners (69 women, 93 men) aged 18 to 67 participated in the study. Participants filled in Attentional Focusing Questionnaire (AFQ; Brewer, Van Raalte, & Linder, 1996) and answered several questions concerning frequency and characteristics of 'hitting the wall' phenomenon. 62% of the participants declared they experienced 'hitting the wall' during their run. While describing 'hitting the wall', the competitors emphasized physical factors ( $M = 2.65; SD = 0.51$ ) significantly more often ( $t(100) = 17.301; p < 0.001; \text{Cohen's } d = 1.72$ ) than psychophysical ones ( $M = 1.72; SD = 0.49$ ). Both groups – those who experienced 'hitting the wall' and those who did not, used association during their run most frequently. Moreover runners who 'hit the wall' also use association rather than dissociation strategy in order to deal with the wall. In this study we explored new areas in the field of psychological aspects of running a marathon in Poland. The results indicate, that most of the amateur runners are not sufficiently prepared to their run as the majority of them experienced 'hitting the wall'.

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**IMAGERY USE IN INDIVIDUALS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) FOR THE PROMOTION OF PHYSICAL ACTIVITY**

*Maria-christina Kosteli, Edge Hill University, UK;*  
*Peymane Adab, University of Birmingham, UK;*  
*Nicola Heneghan, University of Birmingham, UK;*  
*Jennifer Cumming, University of Birmingham, UK;*  
*Sarah Williams, University of Birmingham, UK;*  
*Carolyn Roskell, University of Birmingham, UK*

Exercise imagery is potentially beneficial for insufficiently active people as a means to boosting self-efficacy and promoting physical activity (PA) engagement. Despite the fact that imagery is a successful cost-effective technique that been shown to promote self-efficacy in clinical populations (e.g., cancer, stroke), to date there are no studies that have examined exercise imagery use in individuals with chronic obstructive pulmonary disease (COPD). Twenty-six individuals between the ages of 50-89 years (Mage = 69.50, SD = 27.57; males = 15) with mild to moderate COPD were recruited from the BLISS primary care COPD cohort to participate in one of four focus groups. Thematic analysis revealed key themes, with motivation, planning, skill improvement, and relaxation identified as the most common imagery functions, and scenery, reward, goal, and health images as the most commonly reported imagery content. Interestingly, some participants felt imagery could be debilitating as they got discouraged imagining themselves doing something they used to do in the past but cannot achieve anymore (e.g., going up the stairs). Imagery would need to be carefully tailored and introduced in people with COPD to encourage rather than discourage participation in regular PA. Although imagery could be a useful technique to help people with COPD manage their symptoms, for imagery to be effective it must be meaningful and personalized to fit the specific needs of the population using imagery. Therefore, future imagery interventions should focus on what individuals with COPD can currently do (e.g., arm and upper-body movements) and help them create new experiences reflecting their skills at the present, rather than re-creating what they used to do before they got diagnosed with COPD.

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**IMPROVE EXERCISE-RELATED EFFECTS: JOIN A BOOT CAMP PROGRAM!**

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*Katie M. Cooper, West Chester University, USA;*  
*Paul K. Stickles, West Chester University, USA;*  
*Jared James, West Chester University, USA;*  
*Anna K. Schade, West Chester University, USA;*  
*Alexis N. Trumbetti, West Chester University, USA;*  
*Antonia L. Battaglini, West Chester University, USA;*  
*Jamie L. Blose, West Chester University, USA;*  
*Umit Tokac, University of Missouri, USA;*  
*Melissa A. Reed, West Chester University, USA;*  
*Melissa A. Whidden, West Chester University, USA*

Physical inactivity remains a major public health concern (Cheval et al., 2018). Low levels of motivation and self-efficacy for exercise are amongst the determinants of the problem (Lox, 2017). Evidence suggests that physical activity (PA) interventions help activity levels, nevertheless whether these also improve long term activity adherence is unknown (Valenzuela, Okubo, Woodbury, Lord, & Delbaere, 2018). The purpose of this study was to investigate the effectiveness of a six-week boot camp program for enhancing motivations for long-term PA, self-efficacy for exercise, and perceptions of general health, as well as to measure participants' drives for continually adhering to the program. Twenty-seven sedentary adults (Mage=30.04, SD=10.33) participated in a vigorous boot camp program for a minimum of five days per week for fifty minutes a day during a six-week period. Participants responded to questionnaires measuring their motivation for behavior change, self-efficacy for exercise and, perceptions of general health at the onset and completion of the program. At the completion of the program, they also responded to a single qualitative prompt for identifying motives for continued adherence to the program. Paired sample t tests revealed a significant improvement in participants' self-efficacy for exercise ( $M=7.21 \pm 2.2$  pre vs.  $8 \pm 1.65$  post;  $t= -2.38$ ,  $p < 0.05$ ) and the perception of their general health ( $M=3.17 \pm 1.01$  pre vs.  $3.92 \pm 0.7$  post;  $t= -4.21$ ,  $p < 0.05$ ). Qualitative analyses revealed three main themes for continued adherence to the program: (1) structured aspect of the program, (2) accountability between the participants and exercise professionals, and (3) the sense of community within the program. These findings suggest that alternative interventions such as boot camps can help improve key precursors of long-term PA behaviors. Implications and strategies for practitioners to facilitate long-term PA habits in sedentary adults will be discussed.

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**INFLUENCE OF SEX, RACE AND GENERATION ON COLLEGE STUDENTS' EXERCISE MOTIVATION LEVELS: A GENERATION Z ANALYSIS**

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*Daniel Czech, Georgia Southern University, USA;*  
*Bridget Melton, Georgia Southern University, USA;*  
*David Biber, Virginia Commonwealth University, USA*

Objective: The primary purpose of this study was to investigate the differences between race, and sex in exercise motivation within Generation Z. In addition, a secondary purpose was to compare exercise motivation levels between Generation Y and Z.

Participants: College students from Generation Z (N= 1457; 553 men; 892 Women; 991 White; 372 Black) and students from Generation Y (N= 2199; 1,081 men; 1,118 Women; 1527 White; 478 Black) completed 51 item Exercise Motivation Inventory (EMI-2).

Methods: A cross sectional quasi-experimental design utilizing two data points (spring 2017 and fall 2005/spring 2006) was implemented for this study. Students were recruited from required physical activity courses at the same southeastern midsized university.

Results: The top three exercise motivators for the current Generation Z college students were strength and endurance, ill-health avoidance and positive health. There were significant differences in exercise motivation subscales by gender and race. Generation Z participants scored statistically significantly higher across all subscales of the EMI-2 when compared to Generation Y.

Conclusions: Gender and race is associated with different factors of exercise motives and understanding these motives can help in implementing specific exercise programming within the health education and promotion arena. These findings are particularly relevant to campus wellness services, when designing physical activity intervention and promotional programming for exercise.

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### MOTIVATIONAL CLIMATE, ENJOYMENT, AND INTENT TO CONTINUE IN GROUP EXERCISE

*Erika Van Dyke, West Virginia University, USA;  
Katherine Fairhurst, West Virginia University, USA*

Regular physical activity improves college students' psychological health and well-being (Brown & Fry, 2014); however, only half are meeting physical activity recommendations (Gyurcsik, Bray, & Brittain, 2004). Per the social ecological model (Sallis et al., 2006), environmental factors and intrapersonal factors have been identified as contributing to exercise adherence (Jouper & Hassmén, 2008). The purpose of the present study was to explore the impact of perceived motivational climate in a group exercise setting on exercisers' enjoyment and intent to continue participating. Participants were 137 members of a university recreation center ranging in age from 18 to 47 years (M = 22.66, SD = 4.96). Participants completed an online questionnaire via mobile platform to assess task-involving and ego-involving motivational climate (i.e., PMCEQ-A; Moore, Brown, & Fry, 2015), contextual factors of group exercise classes (i.e., instructor, class participants, music selection, access to facility, and facility features), participant enjoyment, and intent to continue (i.e., Jones, Karageorghis, Lane, & Bishop, 2017). Multiple regression analyses revealed that both context (b = .17) and enjoyment (b = .43) were significant predictors of intent to continue; and task-involving climate (b = .14), ego-involving climate (b = -.18), and context (b = .30) were significant predictors of enjoyment. Consistent with the social ecological model, environmental (i.e., contextual) and intrapersonal (i.e., enjoyment) factors influenced participants' exercise involvement. Specifically, perceptions of high task-involving climate were associated with greater participant enjoyment in group exercise; whereas perceptions of high ego-involving climate were associated with lower participant enjoyment. The current study demonstrates that the composition of exercise environments impact both the degree of individual enjoyment and intent to continue engaging

in physical activity. By fostering a task-involving climate, and minimizing ego-involving factors, fitness professionals and facilities can promote enjoyment among participants, thereby facilitating an increase in exercise adherence among recreation center members.

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### PERSONALITY AND EXERCISE AS PREDICTORS OF PERCEIVED STRESS

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Patrick Brice, Gallaudet University, USA;  
Bruce H. Friedman, Virginia Tech, USA*

Stress has been deemed an epidemic in modern society and has been connected to several mental and physical health conditions (Chrousos, 2009; Siervo, Wells & Cizza, 2009). Although research has shown exercise may be effective at relieving stress (Starkweather, 2007) and personality tends to predict perceived stress (Kotov, Gamez, Schmidt & Watson, 2010), little is known about the connection between perceived stress, exercise and personality. The purpose of the current study was to determine whether the Big Five traits of personality (McCrae & Costa, 1987) and exercise could be used to predict perceived stress. Participants were 448 adults recruited through community sampling and Amazon Mechanical Turk. This resulted in an international, diverse sample with the following ethnicity: 37.7% White, 29.7% Asian American, and 18.3% Asian. Males made up 55.1% of the sample. Notably, 81.6% of participants reported engaging in regular exercise over the last month and 90.2% reported enjoying exercise. Participants completed an online survey, which included the Perceived Stress Scale (PSS-10), International Physical Activity Questionnaire (IPAQ), International Personality Item Pool-NEO (120-item version) and a demographics questionnaire. The measures were analyzed using a linear multiple regression. Results showed exercise data were significantly skewed and that neuroticism, extraversion and conscientiousness significantly predicted perceived stress while exercise, agreeableness and openness to experience did not. Post-hoc analyses examined the correlations between these variables and supported previous findings connecting high levels enjoyment of exercise and higher exercise behavior (Courneya & Hellsten, 1998). For those that enjoyed exercise at least somewhat, motivation to exercise was also related to increased exercise behavior. Similar to previous findings (Courneya & Hellsten, 1998), there was a positive relationship between exercise behavior and extraversion and conscientiousness. These findings may lead to more effective exercise prescriptions and increase the understanding of the mechanisms underlying exercise-induced stress reduction.

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### PERSONALITY AND MINDSET OF THE MARATHON MANIAC

*Kristin Mauldin, California Baptist University, USA;  
Keisha Hart, California Baptist University, USA;  
Berenice Cleyet-Merle, Student Research Assistant, USA*

Recreational endurance running has seen an increase in popularity since 1990, with participation in the US increasing by more than 270% (Running USA, 2011). Out of this has emerged a specialized group of marathon runners called the Marathon Maniacs. In order to become a member, runners must complete two full marathons in 16 days or three full

marathons in ninety days. Of interest is the personality traits and mindset of these recreational endurance runners. Research on personality in sport has found that athletes display higher extroversion, emotional stability, and openness than nonathletes (for review, see Allen, Greenlees, and Jones, 2013). When comparing participants of individual sports to those of team sports, individual sport athletes were found to be less extroverted, more conscientious, energetic and open (Allen et al., 2011; Steca et al., 2018). The current study assessed the personality and mental toughness of members of the Marathon Maniacs in an effort to examine the factors underlying their motivation to run these long distances, and the mindset that helps sustain them. Forty-three participants filled out two measures of personality, the NEO Five-Factor Inventory 3 (NEO-FFI-3; McCrae & Costa, 2007) and the Myers-Briggs Type Indicator (MBTI Form M; Myers & McCaulley, 1985), and one measure of mental toughness, the Inventory of Mental Toughness Factors in Sport (IMTF-S; Stonkus & Royal, 2015). Marathon Maniac members were found to be low in neuroticism and high in openness and conscientiousness. Members were 8.9 times more likely to be classified as INTJ types and 3.7 times more likely to be classified as INFJ types than would be expected in the general population. The Marathon Maniac members' mental toughness scores were in the same range as other athletes. This is the first study to evaluate the personality traits and mindset of this specialized group of marathon runners.

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### **PREDICTING FITNESS IN YOUNG ADULTS: THE ROLE OF PERCEIVED COMPETENCE, MOTOR SKILL PROFICIENCY, PHYSICAL ACTIVITY, AND GENDER**

*Sarah Carson Sackett, James Madison University, USA;  
Elizabeth Edwards, James Madison University, USA*

With its influence on chronic disease, many have sought to understand factors that enhance physical fitness (Eisenmann et al., 2007; Ruiz, et al., 2009). From childhood, physical activity and motor skill levels can influence fitness, with these relationships tracking into adulthood (Janssen & Leblanc, 2010; Cantell et al., 2008). Stodden and colleagues (2008) also suggest perceived competence plays a role in fitness promotion. Specifically, perceived competence, physical activity, fitness, and motor skill operate in positive and negative feedback loops. Proficient movers may find being active more enjoyable and fulfilling, leading to more frequent engagement and enhanced development and fitness. Conversely, less skilled individuals can have negative movement experiences and avoid challenging activities that could enhance skills and fitness. While these loops have been observed in childhood and adolescence (Lubans, 2010), the present study sought to extend our understanding of how these relationships operate in young adults and how they may operate differently in males versus females. Participants ( $n = 448$ ;  $n_{\text{males}} = 211$ ,  $n_{\text{females}} = 237$ ) completed assessment to measure motor skill proficiency (TGMD-2; Ulrich, 2000; BOT-2; Bruininks & Bruininks, 2010), fitness (FitnessGram; Meredith & Welk, 2010), perceived competence (SPPCS; Neeman & Harter, 1986), physical activity (MAQ; Pettee et al., 2011), and demographic information (e.g., age, gender). Multiple regression analyses revealed the tested models accounted for about 75% ( $R^2 = 0.748$ ) of variance in aerobic fitness, 48% ( $R^2 = 0.476$ ) of variance in push-up performance, and 18% ( $R^2 = 0.178$ ) of variance in curl-up performance. Overall, female models demonstrated better fit than those of

males when predicting all fitness variables. With males' higher levels of physical activity, fitness, perceived competence, and motor skills observed, related interventions targeting females may be especially advantageous. Additionally, variables proposed by Stodden et al. (2008) point to particularly useful intervention variables for this population.

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### **SUCCESSFUL ACTIVE AGING: AN INVESTIGATION OF THE FACTORS SUPPORTING ACTIVE LIVING THROUGH RETIREMENT**

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Kaileen Hendle, UW - La Crosse, USA;  
Emily Niquette, UW - La Crosse, USA;  
Ramstad Lisa, UW - La Crosse, USA;  
Erica Srinivasan, UW - La Crosse, USA*

Existing literature shows that physical activity (PA) engagement provides physical, mental, emotional, and cognitive benefits at any age (Kirkland, 2011). Due to the various health benefits derived by regular engagement in an active lifestyle for older adults, health care providers are increasingly interested in prescribing exercise regimens to older adults, both as a preventative and a rehabilitative measure (Sebire, 2009). However, unfortunately 30-40% of those aged 65 years and older comply with the recommended 30 minutes of moderate-to-vigorous PA on at least five days/week (AIHW, 2014; CDC, 2012; Special Eurobarometer, 2010). Therefore, discovering ways to foster engagement, to improve adherence and motivation to exercise, and to reduce barriers and potential drop-outs is crucial. The purpose of this study was to explore the value and the meaning that older adults attributed to PA and the factors promoting and impeding their engagement, through the lens of self-determination theory (SDT) (Ryan & Deci, 2000). The inclusion criteria to participate in this study included (1) Being 60 years of age or older and (2) Being fully retired. Using a semi-structured interview protocol theoretically grounded in exercise psychology and gerontology, eighteen participants were interviewed to explore their personal experience with exercise during the transition to retirement. Interviews were audio-recorded, transcribed and analyzed using Consensual Qualitative Research Methodology (Hill, 2012). Four content-led domains and 37 categories (sub-themes) were identified: Developmental Nature of the Exercise Experience (10), Promoters to Exercise (10), Barriers to Exercise (9), and Retirement as (an Alternative) Lifestyle (8). Findings and recommendations are reported, with a focus on ways to enhance physical activity levels in older adults.

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### **THE EFFECTS OF PARTICIPATION IN A SIX-WEEK EXERCISE PROGRAM ON SENIOR CITIZENS' WELL-BEING: QUANTITATIVE AND QUALITATIVE ANALYSES**

*Takahiro Sato, Western New Mexico University, USA;  
Susumu Iwasaki, Fort Lewis College, USA;  
Sachiko Gomi, Western New Mexico University, USA*

The number of senior citizens has been rapidly increasing around the world (World Health Organization, 2015). Under such circumstances, regular exercise can play a significant role in contributing to their healthy aging (American College of Sports Medicine, 2015) such as improving aerobic capacity (Huang, Gibson, Tran, & Osness, 2005). The purpose of

this study was to describe changes in senior exercisers' multidimensional physical self-concept and fitness levels through participation in a six-week exercise program. Twenty-four participants (16 females and eight males) ranging in age from 62 to 79 years ( $M = 68.79$ ) worked out with an individualized exercise protocol in a small group setting. The short version of the Physical Self Description Questionnaire (PSDQ-S; Marsh, Martin, & Jackson, 2010) and Senior Fitness Test (Rikli & Jones, 2001) were used to measure their physical self-concept and fitness levels for pre and post assessments, respectively. Descriptive statistics and Cronbach's alphas (ranged from .73 to .94) were computed for 11 subscales of the questionnaire. Paired sample t-tests revealed significant improvements in PSDQ-S subscales: Activity, Sport, Global Physical, Strength, and Endurance as well as fitness scores: Chair Stand Test, Arm Curl Test, and 8-Foot Up-and-Go Test. Correlation analysis found a significant connection between these senior citizens' perceived and objective improvements through the six-week exercise participation such as Endurance and 8-Foot Up-and-Go Test. In addition to these quantitative analyses, semi-structured interviews were conducted to those who participated in this exercise program at least twice. These participants shared detailed motivational factors that contributed to continued exercise participation (e.g., instructors' quality, structure of exercise class) and personal strategies to overcome challenges (e.g., utilizing social support). The overview of the exercise program management and the exercise interventions is also presented to further discuss applied implications to facilitate senior citizens' well-being through exercise participation.

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### Injury/Rehabilitation

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### **COMPARING ADOLESCENTS WITH NON-SPORT AND SPORT-RELATED CONCUSSIONS ON SYMPTOMATOLOGY AND COGNITIVE PERFORMANCE AFTER INJURY**

*John Lace, Saint Louis University, USA;*  
*Andrew McGrath, Saint Louis University, USA;*  
*Jill Dorflinger, AMITA Health, USA;*  
*Michael Ross, Saint Louis University, USA;*  
*Jeffrey Gfeller, Saint Louis University, USA*

**Background:** Traumatic brain injuries (TBIs) affect more than 500,000 adolescents annually (Faul et al., 2010) many related to participation in athletics. Most TBIs are of mild severity (i.e., concussions) (Studer et al., 2014; Yeates et al., 2009) and symptom recovery exist is highly variable (Larson et al., 1996). The present study compared psychological and neurocognitive recovery from concussions in adolescents who sustained injuries in athletic participation across various sport types (i.e., collision, contact, non-contact) versus non-athletic contexts (e.g., motor vehicle accidents, falls).

**Methods:** Participants were 89 adolescents seen for a neuropsychological evaluation after concussion ( $n = 61$  sport-related;  $n = 27$  non-sport related). Participants completed PHQ-9 (depressive symptoms), GAD-7 (anxious symptoms), Post-Concussive Symptom Scale (PCSS; common post-concussion symptoms), and Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT; neurocognitive performance). Comparisons between (1) athletic and non-athletic concussions, and (2) concussions in collision, contact, and non-contact sports were conducted.

**Results:** Results indicated that those with athletic concussions reported fewer depressive and anxiety symptoms as well as better neurocognitive performance. Results failed to reveal Although differences between concussions by sport type (i.e., collision, contact, non-contact) failed to reach statistical significance, findings revealed that those sustaining concussions from contact and non-contact sports reported relatively greater depressive, anxious, and post-concussive symptoms than those in collision sports.

**Discussion:** Athletic concussions were related to fewer symptoms and better neurocognitive performance compared to non-athletic concussions. Those in non-contact and contact sports (e.g., baseball, basketball, soccer) reported relatively higher depressive, anxious, and post-concussive symptoms than those in collision sports (e.g., lacrosse, hockey). These differences may reflect lowered symptom awareness, intentional underreporting or more rapid recovery among adolescents who sustain a collision sport-related concussion.

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### **HEART RATE VARIABILITY AS AN OUTCOME MEASURE FOR STRESS INOCULATION TRAINING: A CASE STUDY**

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*Ashley Hansen, Saint Louis University, USA;*  
*Joanne Perry, UNC Charlotte, USA*

**Purpose:** Stress inoculation training (SIT) is aimed at the reduction and prevention of stress (Meichenbaum, 1985). SIT significantly reduces anxiety and pain in athletes during postsurgical rehabilitation of a knee surgery (Ross et al., 1996). Heart rate variability (HRV) refers to the rhythmic changes in heart rate and relates to self-regulation and the restoration of homeostasis (Khazan, 2010). When athletes experience high levels of HRV in the face of stressors, they are better able to respond, react, and adapt (Paula et al., 2016). The current case study assessed the impact of SIT on an injured athlete's recovery. **Participant:** The participant was a male collegiate soccer player post-surgery following severe knee injury (i.e., torn LCL, ACL, meniscus).

**Methods:** The SIT protocol consisted of ten sessions and three components—conceptualization, skill acquisition, and application. Pre- and post-SIT data were collected for HRV average coherence scores and knee strength. **Results:** Pre- and post-SIT HRV assessment demonstrated a change in the athlete's average coherence score following stressors from 0.5 (beginner) to 8.0 (excellent). Additionally, pre- and post-SIT measurements of knee strength increased for both the single leg triple jump (45% to 92% strength) and the single leg single jump (57% to 95% strength). These are consistent with previous reported findings report of 16.1% improvement in the single leg triple jump and a 23.7% improvement in the single leg jump test over an 8-week functional training program (Souissi et al., 2011). **Discussion:** Results suggest that the athlete was able to improve his stress recovery following the completion of SIT training. The athlete also demonstrated increased knee strength across the protocol beyond what may be expected with only functional training. Results warrant continued investigation of the post-surgical benefits of SIT interventions.

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**“MY INJURY, OUR STRESS”: THE ROLE OF DYADIC COPING WITHIN AN ELITE COACH-ATHLETE RELATIONSHIP WHEN MANAGING CHRONIC ATHLETIC INJURY**

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**Background:** Coping strategies used by athletes to manage athletic injuries have been documented in sport psychology literature (e.g., Salim, Wadey, & Diss, 2016). However, the ways in which athletes and coaches cope with injury together remains unexplored. This is despite advances in sport coping literature, which suggest that individuals do not always manage demands alone (Didymus, 2017) but work with others to pool available coping resources and employ dyadic coping strategies. Given the pertinence of serious injury to athletes' careers, research that explores how athletes work with their coach to cope with this demand is warranted.

**Aim:** To explore dyadic coping within an elite coach-athlete dyad when managing chronic injury.

**Methodology and methods:** This study was informed by relativist ontological and constructionist epistemological perspectives. An elite level coach-athlete dyad each took part in an in-depth, individual interview and a dyadic interview (Morgan, Ataie, Carder, & Hoffman, 2013). Research quality was bolstered by a focus on credibility, resonance, rich rigor, significant contribution, and meaningful coherence (Tracy, 2010).

**Results:** The coach-athlete dyad appraised the athlete's injury as “our responsibility” and took a shared approach to coping. To overcome the injury, both the coach and the athlete used protective dyadic coping and guided discovery. The use of such dyadic coping strategies supplemented and extended their own individual coping resources, which promoted personal and relationship growth.

**Conclusion:** Dyadic coping was prevalent in the coach-athlete relationship and dyadic coping strategies were employed to manage the shared demands of athletic injury. Dyadic coping offers a novel and promising avenue for future research and practice.

**Science-practice relationship:** The results highlight that practitioners should work with coaches and athletes to develop shared approaches to coping, as some forms of dyadic coping (e.g., guided discovery) could be targeted when working with injured athletes.

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**PREVALENCE OF SPORT-RELATED TRAUMATIC BRAIN INJURIES IN THE CRIMINAL JUSTICE SYSTEM**

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Very few studies have examined the prevalence of sport-related TBIs in the criminal justice system and the unique characteristics of those individual criminal histories. Although these data were collected as part of a larger study, this particular research can be used to inform post-traumatic

brain injury programming and secondary prevention efforts for athletes. In the current IRB-approved study, individuals were screened by jail and probation staff using a revised version of the Ohio State University Traumatic Brain Injury Identification Method. Data were collected from 781 justice-involved individuals across 17 justice sites; data collection is ongoing. The basic demographic breakdown of the data is as follows: American Indian/Alaska Native (30, 3.9%), Asian (2, 0.3%), Native Hawaiian or Other Pacific Islander (3, 0.4%), Black or African American (95, 12.3%), White (415, 53.5%), Hispanic (176, 22.7%), More Than One Race (44, 5.7%), Unknown / Not Reported (10, 1.3%). Overall, 53% of individuals in this criminal justice setting have a significant TBI history, relative to less than 2% of the general population. Of our 781 participants, 23 (2.94%) identified a sports-related TBI. The basic demographic breakdown of the 23 participants are as follows: American Indian/Alaska Native (1, 4.3%), White (15, 65.2%), Hispanic (6, 26.1%), More Than One Race (1, 4.3%). Those with a lifetime history of sports-related TBI reported more personal, property, and drug related convictions. Personal crimes: 60.9% vs. 57.9% in the general TBI population; property related crimes: 56.5% vs. 45.6%; DUI/DWAI crimes: 39.1% vs. 32.4%; drug related charges: 52.2% vs. 45.6%. These preliminary data suggest the patterns of offenses for persons with sport-related TBI may be unique and warrant further study. More than anything, these early results emphasize the importance of interventions to manage post-injury sequelae for athletes, specifically, drug abuse prevention.

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**PROJECTIVE ASSESSMENT OF PSYCHOLOGICAL READINESS TO RETURN TO SPORT AFTER CONCUSSION**

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For athletes who experience sport-related concussions, return-to-play protocols typically include rest, remission of symptoms, attainment of baseline neurocognitive functioning, and graduated resumption of physical activity. Assessing athletes' psychological readiness to return to sport has also been advocated for inclusion in concussion return-to-play protocols (Caron, Bloom, & Podlog, 2018). Given that athletes who sustain concussions can experience pressure to return to sport before they are psychologically ready, assessments of psychological readiness to return to play that do not rely that do not rely exclusively on self-report are needed. The purpose of this study was to explore the use of a projective test to assess psychological readiness to return to sport after concussion. Participants were 55 athletes between the ages of 12 and 20 who had sustained a sport-related concussion. Participants completed projective, multidimensional implicit, single-item self-report, multidimensional self-report, single-item information processing, and multidimensional information processing measures of psychological readiness to return to sport after injury. The multidimensional measures assessed the extent to which respondents had realistic expectations, low levels of anxiety, and high levels of confidence and motivation regarding a return to sport (Podlog, Banham, Wadey, & Hannon, 2015). Results indicated participants (n = 23) who opted to write a story about a successful

athlete depicted in an image from the Athlete Apperception Technique (AAT; Gibbs, Andersen, & Marchant, 2017) showed significantly higher levels of psychological readiness to return to sport after injury on the single-item self-report measure and the anxiety, confidence, and motivation subscales of the implicit measure than participants ( $n = 22$ ) who chose to write a story about an unsuccessful athlete (all  $p$ -values  $< .04$  and partial eta-squared values  $> .10$ ). The findings suggest that projective assessment can complement the use of other means of assessment of psychological readiness to return to play after sport-related concussion.

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### PSYCHOLOGICAL PREDICTORS OF SPORT INJURY: THE ROLE OF SELF-COMPASSION

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Stress has been linked to a number of adverse consequences to athlete physical and psychological health including heightened risk for athletic injury as outlined by the stress-injury model (Williams & Andersen, 1998). In recent years approaches to athlete well-being have shifted toward strengths-based and positive psychology approaches. One example, self-compassion, draws upon philosophies of a healthy self-attitude and new ways to understand well-being (Neff, 2003). It involves kindness and openness to one's own suffering within a framework of non-judgment and mindfulness. Self-compassion has been found to enhance adaptive coping and well-being and reduce anxiety in stress-provoking situations. The current study examined whether self-compassion may be a potential coping resource for collegiate athletes in their response to stress and the management of anxiety. The contribution of self-compassion as a buffer for injury risk was also explored. Participants were Division II athletes ( $n=117$ ) recruited through convenience sampling at one Mid-Atlantic university. A prospective study design was utilized whereby athletes completed questionnaires (LESCA, SAS, SCS-SF, Brief COPE, ACSI-28) at the start of the season and injury was tracked throughout the season. Findings indicated that self-compassion may buffer the experience of somatic anxiety ( $r=-.436, p<.01$ ) and worry ( $r=-.351, p<.01$ ), and reduce the engagement of avoidance-focused coping strategies ( $r=-.362, p<.01$ ). There were no significant findings related to self-compassion and injury reduction. The authors concluded that self-compassion may be a healthy alternative way for athletes to respond to stressors. However, although self-compassion may be a promising resource in sport, the perception that self-compassion is countercultural to the sport setting may still persist (Reis et al., 2015). Additional research is needed to better understand the complexity of self-compassion in sport and clarify its role for male and female athletes within the context of stress and coping as well as in injury susceptibility.

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### SKILLS TRAINING, RESOURCES AND EDUCATION FOR TRAINERS COACHING HANDBOOK (STRETCH)

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Research has found that a comprehensive approach to injury rehabilitation, treating both physical and psychological burdens, provides the athlete with the greatest opportunity to mentally and physically return to sport (Masten et al., 2014).

In 1999, the athletic training educational programs (ATEP) and National Athletic Trainers Association introduced the Psychosocial (PS) content area into the required curriculum for certification (Cormier & Zizzi, 2015; Stiller-Ostrowski & Ostrowski, 2009). Past literature has indicated certified athletic trainers (ATC) have different perceptions of the usefulness of psychological skills within the rehabilitation process depending on the amount of education obtained in regard to the PS content area (Hamson-Utley, Martin, & Walters, 2008; Moulton, Molstad, & Turner, 1997). Due to the consistent involvement with the team, the ATC is in an optimal position to assist the athlete through the physical and mental challenges of injury. Past literature has indicated ATCs find communication, goal setting, and encouraging positive self-thoughts as the most important mental skills within an athlete's injury rehabilitation (Weiss, Weiss, & Yukelson, 1991). Conversely, teaching muscular relaxation, emotional control strategies, and mental imagery have been rated as least important (Clement, Granquist, & Arvinen-Barrow, 2013). Therefore, the current project includes the creation of an educational manual, i.e. coaching handbook, to provide ATCs with comprehensive information about pertinent mental skill and the practical ways of implementing them into their daily routines with injured athletes. The manual will also include specific relaxation techniques, e.g. deep breathing and mindfulness, cognitive restructuring and the importance of a routine, and motivational interviewing techniques. Studies have also indicated a need for supplemental training beyond of the ATEP curriculum; thus, the current project will also include the development of a one-day course offered to ATCs as additional training for practical application (Clement, Granquist, & Arvinen-Barrow, 2013; Stiller-Ostrowski & Ostrowski, 2009).

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### THE ROLE OF SPORT INJURY-RELATED GROWTH IN PAIN REPORTING AMONG STUDENT-ATHLETES

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Purpose: A large body of literature has been dedicated to risk factors associated with injury concealment, but less attention has been paid to factors that might promote injury reporting. As injury has been identified as an opportunity for growth and development (Roy-Davis et al., 2017), it is advantageous to better understand at what pain threshold athletes report concern of injury to better facilitate a positive recovery experience. The aim of the current study is to examine differences between level of subjective pain one experiences prior to reporting between student-athletes and exercisers. Participants: Participants included NCAA student-athletes from 10 sports ( $n=112$ ), and healthy controls who meet the Center for Disease Control (CDC) physical activity guidelines ( $n=261$ ). Age ranges from 17-23 years old ( $18.98 \pm 1.09$ ). Results: Statistically significant differences in pain scores prior to reporting injury were found between healthy controls ( $M= 7.85, SD= 1.98$ ) and student-athletes ( $M=6.61, SD=1.79$ ),  $t(370)= 5.66, P<.05, 95\% CI= .81$  to  $1.66$ . Discussion: The results of the current study suggest that healthy controls are willing to experience more pain compared to student-athletes before reporting their injurious symptoms to a medical professional. Given this finding, it is plausible that organized



sport could serve as a protective factor to injury reporting. The theory of sport injury-related growth (SIRG) (Roy-Davis et al., 2017) indicates that both internal (i.e., personality, coping styles, perceived support) and external factors (i.e., cultural scripts, available resources, and social support) available to student-athletes, likely influence their response to injury. In this case, it is likely that student-athletes have more readily available access to medical personnel and are more likely to utilize these resources at the onset of injurious pain. By better understanding the role of SIRG in injury reporting, sport psychological interventions can further aid in identifying and emphasizing protective factors associated with injury in sport.

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### Mental Health

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#### AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS OF 2013 BOSTON MARATHONERS' EXPERIENCE OF RUNNING A SUBSEQUENT BOSTON MARATHON

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While trauma experiences have been explored in several sport-related studies, there is a lack of research on athletes' experiences of a terror attack in sport. The present study qualitatively examined the meanings 2013 Boston Marathoners ascribed to their experience of returning to the Boston Marathon to compete. Eight participants took part in semi-structured interviews. Interviews were analyzed via interpretative phenomenological analysis, and Foa and Kozak's (1986) theoretical framework of Emotional Processing Theory was used to contextualize the findings. Eight themes emerged and were organized temporally around pre-2013 Boston Marathon experiences, 2013 Boston Marathon experiences, and post-2013 Boston Marathon experiences. Results suggested that participants initially had difficulty processing their experience, but a return to the race resulted in a changed perspective on the sport. Results also indicated that returning to the Boston Marathon provided an outlet for some participants to demonstrate their defiance to the attackers, display resilience, and achieve a goal they could not accomplish in 2013. Implications for practitioners are discussed, with a focus on athletes' idiosyncratic responses to trauma experiences and how to best serve clients who have experienced trauma in sport.

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#### DO MORE CREATIVE PEOPLE ADAPT BETTER? AN INVESTIGATION INTO THE ASSOCIATION BETWEEN CREATIVITY AND ADAPTATION

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Fabian Becker, Florida State University, USA;  
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Evidence from mainstream psychology research suggest an association between creative thinking and optimal adaptation strategies (Runco, 2014); yet, this relationship has not been tested empirically in the motor domain. Grounded in the Two

Perception Probabilistic Concept of Adaptation (TPPCA; Tenenbaum, Lane, Razon, Lidor, & Schinke, 2015), the present study aimed at testing experimentally whether cognitive and motor creativity influence adaptation when failing to reach a motor task goal. Forty-five students (19 females, 26 males; Mage = 21.48 ± 4.91 years) were asked to complete a motor circuit under time pressure. The motor circuit consisted of six stations requiring skills such as agility, jumping, balance, lateral movement, throwing, and core strength. After setting their own goal, participants had up to 10 attempts to reach that goal and were told that they failed after each attempt. The number of attempt and the different solutions generated to complete the circuit were recorded. Perception of task difficulty and self-efficacy were measured before the first attempt and after the final attempt to generate a probability of adaptation according to the TPPCA framework. Upon completion of the motor circuit, participants completed the affect grid and were tested for their cognitive and motor creativity. Correlational analyses revealed that cognitive and motor creativity are independent but related entities. Motor (but not cognitive) creativity was significantly associated with probability of adaptation ( $r = .31$ ). The most creative participants exhibited greater probability of adaptation before the execution of the motor task, but had similar probability to adapt as the less creative participants after failure. Some similarities exist in the processes underlying both the generation of creative thoughts and movements. Examples of evidenced-based strategies to stimulate these creative processes will be presented.

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#### EXAMINING THE WELLNESS AND STRESS PERCEPTIONS AMONG DIVISION I COLLEGIATE STUDENT-ATHLETES AND NON-ATHLETES

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Purpose: To examine perceived wellness and perceived stress of male and female collegiate student-athletes and non-athlete students. Methods: Student-athlete and non-athlete undergraduates were recruited from a large Division I university in the United States. A total of 256 student-athletes and 233 non-athlete undergraduate students volunteered to participate in the study. All participants were administered a demographic questionnaire, PROMIS, and PSS-14. These measures served as the dependent variables while the independent variable was athlete classification (student-athlete, non-athlete). Multiple statistical analyses (e.g., MANOVA, ANOVA) were conducted with a p value set at .05. Results: Student-athletes showed lower perceived wellness when compared to non-athletes ( $F(8, 479) = 9.33, p < .001$ ). There was no significant difference in perceived stress between student-athletes and non-athletes ( $F(1, 487) = 1.54, p = .215$ ). Conclusions: Student-athletes have lower perceptions of wellness when compared to non-athletes, and no significant difference in stress perception existed between groups.

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### MENTAL HEALTH SCREENING AND FOLLOW-UPS AMONG NCAA DIVISION I STUDENT-ATHLETES

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Participation in athletics does not protect individuals from experiencing psychological disorders. In fact, pressures in sport may exacerbate athletes' vulnerabilities (Kroshus, 2016). In addressing athlete mental health, the NCAA (2016) suggested institutions complete pre-participation mental health screening to identify "at-risk" student-athletes. Our study examined the results of screening conducted in a NCAA Division I athletic department (51 male and 138 female athletes). Athletes completed the confidential 18-item screener based on the National Athletic Training Association best practices in conjunction with team mental health presentations conducted by the department's sport psychologists. Our results focused on the athletes' experience of anxiety (27% feel anxious much of the time), depression (20.6% feel sad, down or worthless, 5.9% endorsed thinking about harming themselves), and body image concerns (26.1% reported their weight affects how they feel about themselves, 23.8% were unhappy or dissatisfied with how their body looks). Regarding substance abuse, 1.6% reported using prescription or illegal drugs, 3.2% drank at least twice a week, 2.6% consumed five or more drinks on a typical day when drinking, and 2.6% reported using marijuana. Specific to performance, 32.6% felt their current psychological state negatively affects their performance and training, 25.3% have difficulty concentrating, and 38.0% reported struggling when injured. Gender effects were found and will be reported as well. Based on these responses, the athletic department's sport psychologists conducted follow-up interviews with the athletes for thoughts of harming self or other (5.18%), substance abuse (6.22%), mental health (26.42%), and performance (9.33%); 52.85% were considered not "at-risk" and were not interviewed. The results emphasize the necessity for mental health screening in athletic departments across the country. With over half of the athletes meeting the requirements for follow-up interviews, the results also underline the increased demand for athletes to have immediate access to mental health professionals.

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### THE CONTRIBUTIONS OF PSYCHOLOGICAL SKILLS AND MINDFULNESS TO NCAA STUDENT-ATHLETE WELL-BEING

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Participation in elite level sport requires being subjected to considerably stressful training and competition environments. Psychological skills and mindfulness have been demonstrated to enhance performance in sport, but less is known regarding how they impact an athlete's well-being in their sport and in their life. Greater knowledge of this relationship would aid practitioners in developing holistic, more psychologically well-adjusted student-athletes. To this end, 222 NCAA Division I athletes representing six different sports completed the Mental Health Continuum - Short Form (Keyes et al.,

2008), Sport Mental Health Continuum - Short Form, Ottawa Mental Skills Assessment Tool-3 (Durand-Bush et al., 2001), and Mindfulness Inventory for Sport (Thienot et al., 2014). Path analyses indicated that both psychological skills and mindfulness had significant moderate direct effects on sport well-being; however, only mindfulness was shown to have a significant moderate direct effect on global well-being. Correlational data indicated foundational skills and somatic skills, specifically self-confidence, relaxation, and activation, to be the most salient psychological skills for sport well-being and global-well. Nonjudgmental acceptance was the most salient mindfulness skill, as it had a moderate causal path to sport well-being and a strong causal path to global well-being. The practical implications of the findings include evidence for the importance of developing these skills in college athletes to enhance their sport well-being and global well-being.

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### THE MOODMENT PROGRAM: AN EXERCISE-BASED MENTAL HEALTH INTERVENTION FOR POST-SECONDARY STUDENTS

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*Sarah Ouellette, Western University, Canada*

There are clear links between physical activity and mental health (Mikkelsen et al., 2017). Students often report a decline in their activity level when they enter post-secondary education, while simultaneously experiencing increased levels of stress and mental health issues, such as anxiety and depression (Sharp & Caperchione, 2016). The current study evaluated the effectiveness of an exercise-based group intervention designed to (1) promote students' awareness of the mental health and cognitive benefits of exercise and (2) assist students to incorporate physical activity into their daily life as a tool to improve their mental health. This intervention consisted of 10 weekly group sessions that included 30-minutes of moderate exercise, a healthy snack break, and a 45-minute psychoeducational talk and group discussion on a variety of topics (e.g., enhancing intrinsic motivation for exercise, goal setting, addressing barriers to exercise, helpful self-talk, mindful exercising). The intervention was developed and run by a psychologist and included evidence-based components (e.g., cognitive behavioural therapy, mindfulness, self-determination theory, motivational interviewing). Twenty students, aged 20-40, participated in the program and presented with a high level of mental health concerns and a low level of physical activity. To evaluate the effectiveness of the intervention, students completed questionnaires before and after the program to provide information on their overall mental health (Symptom Checklist 90-Revised; Derogatis, 1994), exercise motivations (Motives for Physical Activity Measure-Revised; Ryan et al., 1997), and self-reported level of physical activity. Results revealed a high level of student satisfaction and engagement with the program, and a positive effect on their mental health symptoms, exercise motivations, and activity level even at 6-month follow-up. This study supports the use of an exercise-based group intervention to enhance the mental health and physical activity level of sedentary post-secondary students.

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**UNDER THE FACE MASK: RACIAL ETHNIC MINORITY STUDENT-ATHLETES AND MENTAL HEALTH USE**

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Student athletes undergo unique stressors of possible injury, burn out, and conflict with athletic personnel (Sudano, Collins, & Miles, 2017). Due to athletic stress athletes can experience a variety of mental health issues (Reardon & Factor, 2010). However, athletes report using mental health services at a low rate (Watson & Kissinger, 2007). There has been a dearth of research analyzing racial minority college athletes' mental health need and usage rate. The purpose of this study was to investigate racial minority college athletes' symptoms of distress (mental health need), mental health use (usage rate), and factors that influence mental health usage. Data from a sample of 241 varsity athletes (African American = 108, Latinos = 66, Asian American = 67) from the American College Health Association Fall 2015 data set were used in a secondary analysis. The analysis showed that the three racial minority athlete groups had over 78% of athletes report some form of mental health need. In spite of the high rates of mental health need among racial minority athletes only 11% of these athletes in need reported using mental health services in the past year. Still, over 50% of racial minority athletes with mental health need were open to seek mental health services in the future. Additionally, a binominal logistic regression was run to identify demographic and mental health predictors of mental health use  $\chi^2(1) = 83.38, p < .01$ . Follow up analysis showed Stress ( $\beta = 1.58, OR = 3.49, p < .01$ ) and year in school ( $\beta = 1.07, OR = 3.91, p < .05$ ) predicted service use for athletes who were high on stress and who were upperclassmen.

The significant predictors of stress and year of school highlight areas mental health professionals should be aware of in trying to increase mental health service use among racial minority athletes in need.

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**UNIVERSITY SPORT RETIREMENT AND ATHLETE MENTAL HEALTH: A NARRATIVE ANALYSIS**

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Retirement from sport can be a risk factor for mental health challenges especially when an athlete has a strong athletic identity. To date, little attention has been devoted to the potential influences of the structure of sport on the vulnerability of athletes for post-retirement difficulties. This question is particularly relevant given the pressures for universities to provide academic and mental health-related supports to student-athletes, and yet these supports are unavailable to student-athletes upon graduation and sport retirement. Narrative inquiry philosophy informed an exploration of the experiences of Bryn, a female university athlete who developed mental health challenges after graduation and retirement (Riessman, 2008). Seven life history interviews were conducted and a dialogical narrative analysis was used (Frank, 2012). Bryn developed a strong athletic identity from the recognition and special academic and sport-related

supports she received. Upon retirement, when access to resource networks contingent on her star-athlete status were no longer available, Bryn had difficulty coping with threats to her psychological well-being. The findings suggest that the special access to services provided to university sports stars may leave such individuals vulnerable to isolation and helplessness once outside the student-athlete role. As sport psychologists are part of the support system, implications for helping athletes with pre- and post-retirement are highlighted.

**Non-Sport Performance Applications**

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**AN APPLICATION OF RESILIENCE AND PERFORMANCE PSYCHOLOGY ON A MILITARY ARCTIC SURVIVAL COURSE IN ALASKA**

*Jack Parker, AFSC, USA; William Ryan, AFSC, USA*

A multitude of research suggests mental toughness and resiliency to be a distinguishing feature between good and great performers (Rutter, 2006; Macedo et. al, 2014), as well as successful survivalists (Leach, 1994; Eid & Morgan, 2006). The aim of the Army Resiliency Support program is to enhance resiliency in soldiers. This involves meeting soldiers when and where they train, particularly in Alaska, where resiliency is tested in the harshest of environmental conditions.

Soldiers in Alaska (USARAK) participate in two mandatory cold weather training schools, Cold Weather Orientation Course (CWOC) and Cold Weather Initiation Course (CWIC). A third, and more extreme, cold weather survival course is also offered: Arctic Cold Regions Survival Course (ACRSC). Within the past four years the performance team in Alaska has embedded with the ACRSC survival school, providing resiliency skills both in the classroom and in practical hands on training conditions.

This course consists of a week of classroom learning in Fairbanks, AK, and a week in Black Rapids Training Site (BRTS). BRTS is used due to the wide-ranging search and rescue mission of the USARAK aviation pilots. Their job is to rescue any stranded or imperiled individuals throughout the interior of Alaska. Another reason for the shift in location to BRTS is to ensure the harshest temperatures will be experienced by the soldiers as it gets as slow as -90 Fahrenheit in BRTS, as opposed to lows of -60 degrees in Fairbanks.

This presentation will discuss how two team members with the Performance Center in Alaska have developed a training program to develop and apply resiliency for soldiers. The soldiers go into field, as does the performance team to add additional mental stressors to soldiers. In this setting mental toughness and resiliency is the difference between death and survival against a freezing enemy.

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**COLLEGIATE DANCERS' PERCEPTIONS OF THE COACH-CREATED MOTIVATIONAL CLIMATE, PERFECTIONISM, AND TEAM COHESION**

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Risto Marttinen, California State University, Fullerton, USA;  
Chelsea Wooding, National University, USA;  
Laura Evans, California State University, Fullerton, USA*

As performance psychology grows so does the need to understand non-traditional performance populations. Therefore, this study examined competitive collegiate dancers' perceptions of the coach-created motivational climate (Adie, Duda, & Ntoumanis, 2012) in relationship to perfectionism (Dunn, Dunn, & Syrotuik, 2002; Frost, Marten, Lahart, & Rosenblate, 1990) and team cohesion (Carron, Widmeyer, & Brawley, 1985). Dancers (n = 148) completed demographic questionnaires, the Perceived Motivational Climate in Sport Questionnaire-2 (Newton, Duda, & Yin, 2000), the Sport-Multidimensional Perfectionism Scale (Gotwals & Dunn, 2009), and the Group Environment Questionnaire (Carron, 1985). Results revealed that dancers' perceptions of a more task-oriented climate were related to higher scores on all team cohesion dimensions: Attraction to Group-Task ( $\beta = 0.511$ ,  $t = 6.977$ ,  $p < .001$ ), Attraction to Group-Social ( $\beta = 0.435$ ,  $t = 5.101$ ,  $p < .001$ ), Group Integration-Task ( $\beta = 0.712$ ,  $t = 10.945$ ,  $p < .001$ ), and Group Integration-Social ( $\beta = 0.506$ ,  $t = 6.644$ ,  $p < .001$ ); and higher scores on two perfectionism dimensions: Perceived Coach Pressure ( $\beta = 0.133$ ,  $t = 2.127$ ,  $p = .035$ ) and Personal Standards ( $\beta = 0.247$ ,  $t = 2.849$ ,  $p < .005$ ). When dancers perceived a more ego-oriented climate, they reported lower scores on three team cohesion dimensions and higher scores on all perfectionism dimensions: Concern Over Mistakes ( $\beta = 0.491$ ,  $t = 5.957$ ,  $p = .001$ ), Perceived Coach Pressure ( $\beta = 0.788$ ,  $t = 12.641$ ,  $p = .001$ ), Perceived Parental Pressure ( $\beta = 0.357$ ,  $t = 4.019$ ,  $p = .001$ ), and Personal Standards ( $\beta = 0.407$ ,  $t = 4.697$ ,  $p = .001$ ). Perceptions of three perfectionism dimensions were related to two team cohesion dimensions. This presentation will offer comprehensive descriptions of the results and practical implications to gain a deeper understanding of how the coach-created motivational climate may impact dancers' experiences.

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**EXPLORING THE IMPACT OF A BRIEF MENTAL SKILLS TRAINING PROGRAM ON DANCERS' COPING SKILLS AND INJURIES**

*Leigh Skvarla, Chatham University, USA;  
Damien Clement, West Virginia University, USA*

Dancers are an underserved population in the delivery of sport/performance psychology services, and yet they face many physical and psychosocial demands when training and performing (Dick et al., 2013; Hamilton & Robson, 2006). The purpose of the current study was to assess the impact of a short-term mental skills training program on college dance students' (N = 30) self-reported coping skills and physical injuries. The study used a purposive and convenience sample of students enrolled in the same university dance program in the Mid-Atlantic region of the United States. A two-group pre-test/post-test quasi-experimental design was adopted, with the Athletic Coping Skills Inventory-28 (ACSI-28; Smith, Schutz, Smoll, & Ptacek, 1995) being administered at the start

and conclusion of the training program. Additionally, a study-specific instrument was implemented to capture participants' weekly injury status, time lost due to injury, rating of physical pain, and areas of the body affected by pain or injury. Over the course of the training program, students were introduced to diaphragmatic breathing, progressive muscle relaxation, imagery, positive self-talk, and mindfulness. After six weeks, results showed that mean ACSI-28 scores for treatment group participants increased, although this change was non-significant. A post-training program focus group discussion revealed students' reactions to mental skills training and recommendations for programming in college dance settings. Among the qualitative findings were an appreciation for learning new skills; a preference for a longer program time-frame with individual practice reminders; and the importance of consultant/researcher approachability. Overall, only three dancers reported time lost due to injury, and so a more stringent definition may be needed for future research with this population. In accordance with the study's findings, best practices for practitioners and dance educators are presented.

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**THE RELATIONSHIP BETWEEN MOTIVATIONAL CLIMATE AND SELF-EFFICACY AND ENJOYMENT IN HIGH-PERFORMING MUSICIANS**

*Todd Wilkinson, University of Wisconsin - River Falls, USA;  
Hai Nguyen, Carleton College, USA*

While research in sport has shown the link between type of motivational climate and athletes' self-efficacy and enjoyment (e.g., Heilman, 2012), little is known about the nature of these relationships in the non-sport performance domain of music (e.g., Matthews & Kitsantis, 2012). The present study involved 102 high-performing musicians from bands, choirs, ensembles, symphonies and orchestras from across the Midwestern United States. Their ages ranged from 18 – 84 (M = 33.46, SD = 17.16). Participants were assessed using the Perceived Motivational Climate Scale (Newton et al., 2010); Caring Climate Scale (Newton et al. 2007); Self-Efficacy Scale (Ritchie & Williamson, 2010), as well as on several demographic variables. The results showed support for the hypotheses that both a task-involving and caring climate were positively related to performer self-efficacy and enjoyment. Conversely, an ego-involving climate was negatively related to both self-efficacy and enjoyment. This research extends the motivational climate literature into an understudied domain, that of high-performing musicians. These results can be directly applied in specific and tangible ways to help conductors, musicians and other contributors to a motivational climate develop environments that are significantly associated with such positives outcomes and experiences.

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**Private Practice**

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**NAVIGATING THE PROCESS OF INCORPORATING TECHNOLOGY INTO PRIVATE PRACTICE**

*Devin Markle, Sports Academy, USA*

The purpose of this lecture is to address the use of technology in the field of sport and performance psychology. The connection between the use of technology and developing athletic peak performance has shown to be beneficial in enhancing reaction times (Mori, Ohtani, & Imanaka, 2002),

visual awareness (Vignais, Kulpa, Brault, Presse, & Bideau, 2015), and overall decision-making abilities (Nakamoto & Mori, 2008). Although the physiological and cognitive benefits of using technology to enhance performance is well recognized, there is still a sense of hesitancy for professionals in the field of sport and performance psychology when considering incorporating technology into his or her practice. Analyzing the various types of technology, the scientific backing, and overall benefits for athletes can be an overwhelming and daunting task.

For this lecture, the presenter will provide the process she went through to find the most financially and scientifically beneficial pieces of technology that could be incorporated into her performance psychology practice. Ultimately, the presenter chose to purchase two pieces of technology to add to her practice's "mindset lab", which included: Dynavision D2 and Neurotracker. The Dynavision D2 board trains an individual's visual and motor reaction time as well as peripheral vision (Schwab & Memmert, 2012). Neurotracker is a 3D system that trains visual object tracking, as well as sustained and selective attention (Parsons, Magill, Boucher, Zhang, Zogbo, Berube, Scheffer, Beauregard, & Faubert, 2014).

Adding the mindset lab into the presenter's sport and performance practice, she realized not only the direct scientific benefits of the technology, but also many invaluable benefits as well. For example, the mindset lab can simulate a pressure situation, giving insight into how athletes might behave in competitive-like scenarios. The most common mindset insights that can be seen are athlete self-talk, frustration with mistakes or failure, and body language. This also gave the presenter a chance to incorporate the mental skills that they may have been on with a client during individual training.

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#### Professional Development, Supervision, and Mentoring

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#### **A CASE FOR EVIDENCE INFORMED AND EVIDENCE BASED SPORT PSYCHOLOGY - RECOMMENDATIONS FOR TRAINING, RESEARCH, AND PRACTICE**

*Alex Yarnell, Ithaca College, USA;*  
*Justine Vosloo, Ithaca College, USA;*  
*Sebastian Harenberg, Ithaca College, USA*

According to Wyellman et al (2009), the practitioner is vital for the sport psychology profession to thrive. Henschen & Tennebaum (2005) declared, "a prominent issue in sport psychology is the need to develop practice procedures that are accountable and trustful, anecdotal evidence of the effectiveness of applied sport psychology interventions is no longer sufficient to justify the efficacy of the field". Clinical psychology has advocated for adequate development of the field, science informs practice, which in turn informs the need for inquiry and advancement (Gardner, 2009). In 1947, the APA advocated for doctoral psychologists to be trained as both scientists and practitioners (APA Task Force, 2006). This stemmed from professionals drawing conclusions from loosely based experiences, with no scientific evidence available to justify practice. The evidence-based model required the practitioner to integrate the best research evidence, professional expertise, and client characteristics and preferences in order to adequately devise an appropriate, ethical and effective intervention (Sackett et al., 1996; Gardner & Moore, 2004). While AASP and many sport

psychology scholars have advocated for the adoption of the scientist-practitioner model, the adoption of evidence-based practice appears limited. Empirically testable theories and randomized controlled trials developed specifically for the performance specialty are needed to guide curricula, interventions, implementations, outcome evaluations, while further legitimizing and propelling the field (Aoyagi et al., 2011). This presentation will highlight the importance of Evidence-Informed, Evidence-Based Sport Psychology practice (EBSP) in graduate training and applied practice within the Scientist-Practitioner model AASP has advocated for. The presentation will review relevant EBSP theory and training models (e.g. Transdisciplinary model; Satterfield et al., 2009) from parallel fields (e.g. psychology, athletic training) and identify literature gaps that currently exist in sport psychology research that will influence the effectiveness of EBSP. Recommendations for future research, graduate training and applied practice will also be discussed.

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#### **AN ACADEMIC TO PROFESSIONAL TRANSITION IN SPORT PSYCHOLOGY: WORKING WITH SOLDIERS, THEIR FAMILIES AND US ARMY SPECIAL OPERATIONS FORCES**

*Sydney Masters, People, Technology and Processes, LLC, USA;*  
*Lia Gorden, Ithaca College, USA;*  
*Justine Vosloo, Ithaca College, USA;*  
*Sebastian Harenberg, Ithaca College, USA*

The transition from graduate school to a professional setting is challenging, especially when entering a high pace environment, such as the military (Tod, Andersen & Marchant, 2008). Many early practitioners are excited to apply the learned skills with clients and build a professional reputation (Owten, Bond & Tod, 2013). This exuberance may confront a neophyte consultant through neglect of the vital building blocks to effective consulting relationships such as rapport building, establishing trust through a working alliance and tailoring interventions specific to the clients (Ravizza, 1990; Sharp & Hodge, 2011). Many practitioners entering the army community may have limited exposure to working with armed forces. As such, building rapport with this population can present as uncomfortable or difficult (Tod, Andersen & Marchant, 2010). The rapport building process may also be influenced by personal characteristics. For example, female neophytes may face more challenges as they enter the military which is a male dominated population (Roper, 2002). Upon completing their graduate degrees, the two presenters recently accepted positions within the army working with soldiers, their families and special operations forces. The presentation will emphasize the presenters' experiences as neophyte professionals in their transition to the army setting. Through engagement in reflective practice, the presenters will explore the major aspects believed to have impacted this transition. The presentation will identify personal attributes believed necessary to succeed in this environment and important educational experiences or gaps in graduate education will be explored. Finally, recommendations for graduate coursework, training and mentoring practices will be made. This informative perspective provides insight to graduate students who are interested in moving towards professional careers, while highlighting specific considerations and implications for faculty advisors or mentors looking for this "boots on the ground" insight from the field.

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### THE FUTURE OF CONTINUING EDUCATION IN SPORT AND EXERCISE PSYCHOLOGY: A DELPHI STUDY

*Alessandro Quartiroli, University of Wisconsin - La Crosse, USA;  
Christopher Wagstaff, University of Portsmouth, UK;  
Kemmel Cassandra, UW - La Crosse, USA;  
Hermes Maggie, UW - La Crosse, USA*

One of the fundamental competencies for psychologists is to practice according to the ethical standards and principles of their profession (Rodolfa et al., 2005). One way of achieving these standards is by engaging in continuing education (CE), which we define as an ongoing process consisting of formal learning activities in psychology, which update individuals on emerging research and technologies, as well as increase competencies in order to improve services to the public and profession (cf. Neimeyer, Taylor, & Wear, 2009). Experts and senior sport and exercise psychology (SEP) professionals have repeatedly noted the importance of engaging in CE as a means to improving one's professional experience (Quartiroli, Etzel, Knight, & Zakrajsek, 2018). The current study aimed to significantly extend knowledge regarding how professionals perceive CE in SEP. A panel of 25 expert SEP professionals were invited to participate in a 3-phase Delphi study. This multinational panel of experts was selected based on their membership of professional society committees charged with developing and implementing continuing education in SEP. The Delphi approach sought to better understand optimal delivery, assessment of outcomes, and the impact of CE, as well as beliefs regarding the specialization of knowledge and the "half-life" of knowledge within the SEP field. The sample contained both academic (65%) and applied (37.5%) professionals with an average professional experience of 13 years (SD = 8.3). Collectively, the findings were interpreted to indicate that although expert SEPs generally considered continuing education to be very (52%) or extremely important (44%), there exists a diverse range of beliefs regarding the present impact of and future optimization of CE. In presenting our findings, we outline an SEP-specific definition and model of CE, and a consensually-agreed "half-life" of CE engagement. The implications for individuals and societies are discussed in relation to professional competencies and development.

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#### Professional Issues & Ethics

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### WITTGENSTEIN, LANGUAGE-GAMES, AND CONCEPTUAL CONFUSIONS IN SPORT PSYCHOLOGY

*Tim Pitt, English Institute of Sport, UK;  
Owen Thomas, Cardiff Metropolitan University, UK;  
Sheldon Hanton, Cardiff Metropolitan University, UK;  
Pete Lindsay, Mindflick, UK; Mark Bawden, Mindflick, UK*

Ludwig Wittgenstein (1889–1951) was arguably one of the most important philosophers of the 20th century, whose work primarily focussed on the philosophy of language. Despite previous interest in philosophical approaches (Corlett, 1996), and the value given to philosophy in relation to applied practice (Poczwadowski, Sherman & Ravizza, 2004), almost no attention has been given to Wittgenstein's works in sport psychology. In this poster, we demonstrate how our discipline of sport psychology can sometimes suffer with conceptual

confusions and misunderstandings driven by an unintentional, misguided use of language. Through the philosophical thinking of Wittgenstein, we demonstrate how these confusions can arise when, focused on approaching our work scientifically, we mistakenly confuse 'concepts' for 'objects' and subsequently treat them as such within our endeavours (and language). We provide examples to demonstrate and illuminate this process, which typically occur when a verb or adjective is deceptively transformed into the noun form of a psychological entity within our dialogue. In such circumstances, it is the subsequent 'language-game' that is then played by the athlete, coach and/or practitioner that can hold their thinking captive, preventing them from reaching a solution. By drawing on Wittgenstein's philosophy, and the methods of previous psychologists whose works were shaped by Wittgenstein (e.g., de Shazer, 1985; Watzlawick, Weakland & Fisch, 1974), we consider ways in which practitioners and researchers may avoid these conceptual confusions. In doing so, the wider implications for future research, applied sport psychology, and the training of practitioners are considered.

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#### Research Design

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### A NOVEL MEASURE FOR ASSESSMENT OF RECOVERY IN ATHLETES: AN EXPLORATORY FACTOR ANALYSIS (EFA)

*Courtney Hess, University of Massachusetts - Boston, USA;  
Stacy Gnacinski, Drake University, USA;  
Barbara Meyer, University of Wisconsin-Milwaukee, USA*

To prevent overtraining, optimizing recovery is imperative for practitioners within the sport domain (Meeusen et al., 2013). The RESTQ-Sport is currently the only measure to assess athlete recovery, but concerns have emerged regarding the psychometric properties of the recovery scales (Martinent et al., 2014). To improve translation of research to practice for overtraining prevention, reliable and valid recovery monitoring tools are needed. Therefore, the purpose of the current study was to evaluate the validity and factor-structure of a novel recovery measure for athletes. Five-hundred twenty-five elite athletes (M=372; F=182; Mage= 20.01 +/- 2.08) completed the 58-item pool, generated from the sport overtraining and occupational health recovery literature (Soligard et al., 2016; Sonnetag et al., 2017). Item stems stated, "in the last 7 days", with responses scored on a 7-point Likert-type scale ranging from never (0) to always (6). To examine factor structure, a scree plot, parallel analysis, and factor analysis were used. Per exploratory factor analysis (EFA) methods, a maximum-likelihood extraction was used with a direct oblimin rotation. Results indicated that an 8-factor model demonstrated best fit (RMSEA = 0.066; TLI = 0.827; BIC = -3937.09). Upon further examination of factor loadings, 16 poor performing items ( $\lambda < .40$ ) were identified and removed. The EFA was repeated with the remaining 42 items, and a 38-item, 8-factor model demonstrated best fit (RMSEA = 0.062, TLI = 0.884, BIC = -1885.33). The model demonstrated adequate internal consistency ( $\alpha = .96$ ; CI = .95-.96), with only 4 items emerging as poor performing (primary loading  $\lambda < .40$ , cross-loading  $\lambda > .30$ ). Emergent factor themes included autonomy in life and sport, psychological detachment, mastery experience, physical recovery, enjoyment, altruism, optimism, and conservation of resources. Results support consideration of the 38-item recovery measure for research and practice with athletes.

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**DEVELOPMENT AND PRELIMINARY VALIDATION OF A NEW RECOVERY MEASURE: COACH INPUT**

*Mellanie Nai, University of Wisconsin - Milwaukee, USA;*  
*Stacy Gnacinski, Drake University, USA;*  
*Carly Wahl, University of Wisconsin Milwaukee, USA;*  
*Barbara Meyer, University of Wisconsin-Milwaukee, USA*

Sports medicine literature supports the inclusion of psychological measures in monitoring athlete responses to training load (Nässi et al., 2017; Saw et al., 2016). Current tools being used in practice are psychometrically flawed and provide insufficient evidence of practical application (Gnacinski et al., in review; Taylor et al., 2012). In addition, coaches have seldom been included in the development of such psychological measures even when their role may include implementing the tool and adjusting training loads accordingly (Saw et al., 2015). In order to develop a new data-driven measure of perceived recovery, the purpose of the current study was to generate a pool of items and assess the content validity of those items. The 58-item pool emanated from the theoretical conceptualization of recovery (Kellman & Kallus, 2010) and the occupational literature on recovery (Nässi et al., 2017). To assess content validity, elite level coaches (5 female, 3 male) served as expert reviewers, and were asked to rate each item using a 4-point Likert scale (1 = poor, 4 = very good) based on how accurately the item represented the definition of recovery provided by the researchers. Items were evaluated using two criteria (a) individual content validity index (I-CVI) of 0.78 or above (Lynn, 1986); and (b) a mode of either a 3 or 4 (rated good or very good). Items meeting both criteria were considered good items and were retained. Items meeting one criterion were considered fair items to be further reviewed, and items meeting zero criterion were considered poor items and were discarded. Results indicated that 23 items had good, 22 items had fair, and 13 items had poor levels of content validity. Results of the current study may facilitate development of a psychometrically sound and clinically relevant recovery measure for athletes.

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**EVALUATING ITEM PERFORMANCE IN A NOVEL MEASURE OF PERCEIVED RECOVERY: APPLICATIONS OF ITEM RESPONSE THEORY**

*Stacy Gnacinski, Drake University, USA;*  
*Barbara Meyer, University of Wisconsin-Milwaukee, USA*

Recovery, as a psychological construct, remains an elusive concept to sport scientists and practitioners. One limiting factor in the translation of recovery research to practice is the limited availability of psychological measures for perceived recovery. For available measures (e.g., the RESTQ-Sport, POMS), questions have surfaced regarding psychometric properties and the construct distinction from stress and burnout (Davis et al., 2007; Martinent et al., 2014). In an effort to address these questions, the purpose of the current study was to evaluate item performance for a novel measure of perceived recovery using item response theory (IRT) methods. Items ( $q = 58$ ) were generated based on the occupational recovery (Sonntag et al., 2017; Zijlstra et al., 2014) and sports medicine literature (Gabbett, 2016; Meeusen et al., 2013). Item stems read "In the past 7 days/nights", and the

response format reflected a 7-point Likert type frequency scale (0 = never, 6 = always). Athletes ( $N = 555$ , Mage = 20.01 years, 67 % female, 33 % male) completed an online version of the item pool. For the IRT analysis (IRTPro 3 Software), item responses were analyzed using a graded response two-parameter logistic (2-PL) model. Test information function (TIF) curves, category response curves (CRC), item difficulty (b), item discrimination (a), and factor loading ( $\lambda$ ) parameters were evaluated for each item to qualitatively classify performance of items as poor, adequate, or strong. Results of the IRT analysis revealed 8 poor items, 27 adequate items, and 23 strong items. Post hoc IRT analysis of the strong items only revealed acceptable overall model fit (RMSEA = 0.08), high discrimination ( $a = 1.45 - 2.56$ ), and acceptable factor loadings for each item ( $\lambda = .65 - .86$ ). Results provide preliminary evidence to support the psychometric properties of a novel recovery measure for use in sport psychology research and practice.

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**KEEP CALM AND PLAY ON: THE EFFECTS MINDFULNESS AND GOAL ORIENTATION ON SPORT PERFORMANCE**

*Alex Auerbach, University of North Texas, USA;*  
*Trent Petrie, University of North Texas, USA;*  
*Troy Moles, Premier Sport Psychology, USA*

Motivational feedback may influence athletes' performances (e.g., Harwood et al., 2015; Smith et al., 2009), and recent research (Moles et al., 2017) has provided empirical support. What is not known, however, is how athletes' psychological traits might influence their responses to motivational feedback. Thus, we examined trait mindfulness and goal orientation as moderators of the motivational feedback -- sport performance relationship. Male high school soccer players ( $n = 71$ ) participated; Mage = 15.81 years ( $SD = .82$ ); the majority were Hispanic/Latino/Mexican American ( $n = 31$ , 43.7%) or Caucasian/White ( $n = 31$ , 43.7%). With IRB approval and parental consent, participants completed trait mindfulness and goal orientation measures before undergoing a two trial, ecologically valid kicking task. After warmup, athletes shot 12 soccer balls at goals placed 10, 15, and 20 yards away within a 2-minute time limit; their score in each trial was based on how many shots they made. Between trials, having been randomly assigned to condition, athletes received either standardized mastery- or ego-involving motivational feedback in relation to their Trial 1 performance; athletes then completed Trial 2. We used hierarchical multiple regression (HMR) to test the moderating effects of mindfulness and GO on the feedback-performance relationship. Mindfulness, but not GO, was a significant moderator, accounting for 1.9% of variance. Simple slopes analysis revealed a significant effect for low ( $B = 10.84$ ,  $SEB = 4.39$ ,  $p = .016$ ,  $t = 2.47$ ), but not high, ( $B = 3.22$ ,  $SEB = 4.27$ ,  $p = .45$ ,  $t = .75$ ), levels of mindfulness. Low mindful athletes who received mastery-involving feedback performed 35% better than those receiving ego-involving feedback. Athletes' levels of mindfulness, but not their goal orientations, moderated the effects of the motivational feedback received. Specifically, within the low mindfulness group, athletes receiving mastery-involving feedback scored significantly better than those who receiving performance-involving feedback.

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**THE EFFECTS OF TEAM WIN: LOSS RATIO ON INDIVIDUAL MOTIVATION AND PERFORMANCE**

*Stephanie Bailey, Dept. Psychology & SUNY Neuroscience Research, USA*

Athletes experience performance pressures to win competitions regardless of their team’s Win:Loss ratio (W:L). However, little is known regarding how such pressures influence athlete’s motivation. Prior studies have attempted to determine which factors motivate athletic competition, yet factors that motivate team performance and its impact on the individual athlete require further investigation. To provide insight in addressing this problem, we conducted a case study using a novel Sport Psychology Motivational Assessment Scale (SP-MAS) and distributed it amongst the SUNY Old Westbury basketball, lacrosse, and soccer teams. The SP-MAS showed that an athlete’s motivational performance can be impacted by their team’s W:L as it relates to four functional relationships: 1) decreased team W:L & decreased athlete motivation [DD]; 2) decreased team W:L & increased athlete motivation [DI]; 3) increased team W:L & decreased athlete motivation [ID]; and 4) increased team W:L & increased athlete motivation [II]. Our data suggests that II athletes rate highest on the SP-MAS and further assessment of the shifts from DD-DI-ID-II can be tracked overtime to continually evaluate athlete’s and team’s motivational interactions and performance trajectories in predicting overall W:L. Thus, the SP-MAS may provide useful athlete feedback with consideration across various sport and divisional contexts.

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**Tactical Populations**

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**A CASE STUDY OF HABIT FORMATION ON ATTENTION AND PRIORITIZATION OF MENTAL SKILLS AMONG MILITARY INTELLIGENCE STUDENTS**

*Russ Flaten, SAIC, USA;  
Jessica Woods, SAIC/ARMY, USA*

The influence of reward learning on attention has rapidly become an area of interest for researchers (Anderson, 2016). Recent studies suggest that it is not merely overt behavioral responses that are modified by the formation of S-R (stimulus-response) habits, but rather habits shape how the perceptual system distributes attention and prioritizes stimuli (Anderson, 2016; Luque et al., 2017). Military training exercises are designed to assimilate Soldiers to various stimuli in order to increase habit formation and reinforce previously learned tasks as well as prepare for the deployment cycle (Hairston, 1998). Field training exercises may last days, weeks or months with additional family separation; despite the fact that the training may occur in the same country (or state) as the Soldier’s home station (Castro & Adler, 1999). The training cycle allows Soldiers to become aware of their action’s and the superseding consequences that may disrupt performance at high operations tempo (OPTEMPO) (Hairston, 1998). As awareness of actions and consequences occur, Soldiers can learn to adapt their behavior when the value of those consequences change (ie. Environment, culture, mission set, and standard operating procedures) (Luque et al., 2017). The OPTEMPO on a Soldier and unit readiness is critical for

mission success and a great concern for military and civilian leaders alike (Reimer, 1998). This lecture examines two military students during a two-month training cycle and another two military students during a four-month training cycle. Each student was assessed on mindfulness, attentional demands, skill acquisition, and sustainment of previous learned tasks in order to meet course objectives. The case studies showed how attentional selection and prioritization of stimuli help students perform to and above course standards. This lecture will also discuss the pitfalls military students encounter when learning new skills and the methods to increase habit formation and skill acquisition.

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**KNOWING YOUR PARTNER IS AS IMPORTANT AS KNOWING YOURSELF: DEVELOPING AWARENESS AND REGULATION STRATEGIES FOR YOURSELF AND YOUR TEAMMATE**

*Brad Baumgardner, AFSC, USA;  
Brett Sandwick, Elite Mentality, USA*

The Army Best Medic Competition is a physically, technical, tactical and mentally demanding competition. Pairs of the most seasoned medics compete for 72 continuous hours in a number of medical events with no scheduled sleep. Two CMPC’s incorporated mental skills into the train up with a team for the competition. Each team member identified situations in which they foresaw losing focus, having counter-productive thoughts and experiencing counterproductive emotions and reactions. The team members were trained to use an internal stoplight (Ravizza & Hanson, 1995) to build individual self-awareness and awareness of indicators of their teammate. Implementation intentions (Oettingen, 2000) were developed to help them self and their teammate self-regulate. The train up was designed to put the soldiers in stressful situations and implement the techniques under stress. The pair we worked with exceeded expectations, placing in the top 3 overall.

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**SOCIOGENIC INFLUENCES OF AUTHENTIC LEADERSHIP ON PSYCHOLOGICAL RESILIENCE IN UNITED STATES ARMY SOLDIERS**

*John Gaddy, Armed Forces Services Corporation, USA;  
Stephen Gonzalez, The College at Brockport, State University of New York, USA*

The U.S. Army requires resilient soldiers who can positively adapt following an adversity (U.S. Army, 2014). Resilience is defined as a balancing of vulnerabilities and protective factors so that an individual can adapt successfully following exposure to risk (Masten, 2001). Recent research has emphasized individual protective factors and their role in contributing to resilience, but social influences, such as leadership styles and behaviors, remain an area of interest to improve our understanding of resilience. Sociogenic influences, or social factors originating from peer groups, leaders, or other relationships can affect the strength of one’s protective factors and overall resilience (Mandleco & Peery, 2000). As social interactions affect resilience, the examination of leader specific actions can identify behaviors that correlate with higher levels of resilience. Authentic leadership was chosen for the present study because of the emphasis on moral behaviors. The



purpose was to determine if a relationship exists between the perception of authentic leadership and subordinate resilience in U.S. Army enlisted soldiers. Participants (N = 132) were assessed for resilience using the Connor Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). The perception of supervisor authentic leadership was assessed using the Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008). Findings indicate a positive relationship between the perception of authentic leadership and subordinate resilience ( $r = .41$ ,  $p < 0.05$ ). The findings of a positive correlation between authentic leadership and resilience converge with extant research that positive social interactions are predictive of the ability to improve psychological wellness (Seligman, 2008). While causality cannot be determined, these findings illuminate the importance of leadership as a means to influence psychological resilience in the U.S. Army. The results of this study provide practitioners working with military populations to address resilience with military leaders, highlighting the importance of developing authentic leadership to supplement individual resilience training.

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### Teaching

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**BRING IT ON: EXCITING ACTIVITIES FOR TEACHING SPORT PSYCHOLOGY FACE-TO-FACE AND ONLINE**

*Mark Stanbrough, Emporia State University, USA*

Sport is very popular because of the inherent excitement involved! Coaches actively work to psych up their players using motivational techniques. Do instructors bring the same energy and motivation to the classroom? Information will be presented that enhances the teaching skills and effectiveness of those teaching sport psychology both in the face-to-face classroom and online. Differences between face-to-face and online teaching will be explored. The participants will learn practical hands-on and enjoyable mental training activities designed to increase mental skills. The activities presented will demonstrate the key principles behind the effective use of mental skills and help increase commitment to mental skills training.

Activities will be presented based on theory and research; however, following the scientific-practitioner model, the focus will highlight several fun, practical ideas to enable athletes, coaches, and exercise leaders to more effectively cope with being successful in sport and exercise psychology. When psychological skills can be presented in a fun, hands-on learning environment, it can be effective in increasing commitment and the belief that these exercises can and will contribute to mental and physical development (Chase, 2013, Morris & Thomas, 2004, Karageorghis & Terry, 2011).

The following specific learning objectives will be achieved: (1) understand general guidelines on teaching psychology in the face-to-face classroom and teaching online, (2) compare and contrast successful ideas that work in both the face-to-face and online classes, (3) share specific ideas that may be incorporated into successful sport psychology classes.

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**COUBERTIN'S CORNER - INCREASING GROUP FUNCTIONING IN THE CLASSROOM: FOUR PERSPECTIVES FROM THE FIELD**

*Eric Martin, Boise State University, USA;  
Megan Byrd, John F Kennedy University, USA;  
Alison Ede, California State University, Long Beach, USA;  
Stefanee Maurice, California Polytechnic State University, USA*

Over 100 years ago, Pierre de Coubertin founded the modern Olympic Games. Importantly, he instituted educational conferences as part of the Olympic movement. In tribute to de Coubertin, the AASP Teaching Sport and Exercise Psychology SIG has developed the concept of "Coubertin's Corner" as a way of grouping and integrating poster submissions on teaching topics. As the work force has shifted, future employers seek students who can effectively work in teams. As such, many college classrooms have incorporated course projects that aim to develop the skills necessary to function well in groups. However even with this increased emphasis on group work, not every group functions positively and productively. As instructors, we have an opportunity to structure environments where students can learn to work effectively in teams and prepare to apply these skills in a diverse range of future careers. Further, learning from peers concerning their own techniques in creating high-functioning groups can be beneficial in shaping our own teaching practices. Therefore, the poster will incorporate four perspectives on how to create an environment that promotes high-functioning groups. Portions of the poster will explore ways to create effective groups and explicit roles, lead groups in a brainstorming session to identify possible future issues and plan ways to overcome them, and ensure each group member is positively contributing to the project via regular check-ins and more objective network analysis. Further, the nature of group work inherently creates difficulties in how to assess individual contributions to group work. Therefore, in addition to facilitating group functioning and accountability, the poster will also explore manners to assess individual project contributions. We hope sharing these diverse perspectives will provide ideas for instructors as well as highlight the importance of dialogue in these issues.

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**@SPORTPSYCHCLASS: THE USE OF INSTAGRAM AS A TEACHING STRATEGY WITH AN ONLINE INTRODUCTORY SPORT PSYCHOLOGY CLASS**

*Lindsay Berg, West Virginia University, USA;  
Carra Johnson, West Virginia University, USA*

Social media is one of the most popular leisure activities among adolescents and young adults (Bányai et al., 2017). A 2015 survey of social media use in the United States reported that 90% of 18-29 year olds used social media (Esteve del Valle et al., 2017). Considering the popularity of social media amongst young adults, the proposed lecture will address the effective use of social media (specifically, Instagram) as a means to make introductory sport psychology material more accessible to students in an online class. The idea of a class Instagram account came about while brainstorming ways to provide online students a better understanding of the relevance and application of course concepts (i.e. motivation in sport, team cohesion, goal setting, etc.). Instagram posts were thought to be an effective means of doing this because

many students utilize Instagram regularly, photos/videos of current events can be used to quickly get students' attention, and brief captions can be used to make connections between the photos/videos and material currently being covered in class. The proposed presentation will address (1) the conceptualization of the Instagram account, (2) the initial survey used to gauge students' interests and social media use, (3) the development and design of the Instagram account, (4) security and privacy measures, (5) the process of finding and posting effective photos and videos, (6) the development of effective captions that connect current events to the material being concurrently covered in class, and (7) student feedback, and future directions. Considering the rising popularity of online courses in higher education, even in its early stages, this creative addition to an online sport psychology course provides a framework and basic guide for instructors interested in supplementing their online courses.

## 108

### **TEACHING SPORT AND EXERCISE PSYCHOLOGY FOR THE FIRST TIME: REFLECTIONS AND LESSONS LEARNED**

*Jessica Ford, University of Wisconsin-Milwaukee, USA*

In preparation for a career as an educational sport and exercise psychology professional, many graduate students seek opportunities to garner teaching experience as adjunct instructor at the collegiate level. The purpose of this presentation is to describe the personal experiences and lessons learned as a graduate student teaching a collegiate sport and exercise psychology course as an adjunct instructor for the first time. Given that reflection, feedback, and peer consultation is seen as an important aspect of the pedagogical learning process to enhance teaching skills (Heppner, 1994), the presentation will present key themes that emerged from two main sources: reflexive journal entries completed by the adjunct instructor throughout the semester and the formal and informal feedback received from students at the conclusion of the semester. In particular, the following themes will be presented: developing a teaching philosophy, working with nontraditional student populations (e.g., veterans, adult/returning students), managing class time effectively, working collaboratively with a teaching assistant, exploring innovative and exciting ways to present sport and exercise psychology concepts, and navigating unexpected occurrences (e.g., what worked?; what did not work?). By doing so, the presentation will provide useful information to those neophyte sport and exercise psychology students/professionals looking to garner experience in collegiate teaching. This information can also be used by seasoned sport and exercise psychology educators in guiding and mentoring their graduate students for successful teaching experiences in higher education.

## 109

### **THE FINAL COUNTDOWN: TEACHING FUN, ACTIVE LEARNING, AND ENGAGING FINAL ASSESSMENTS FOR THE SPORT PSYCHOLOGY CLASSROOM**

*Emily Heller, Waubesa Community College, USA;  
Christina Johnson, Cornell College, USA*

Undergraduate student engagement provides a foundation for a thriving sport psychology profession. The purpose of this presentation is to demonstrate strategies for fostering engagement, learning, and fun among undergraduate students in sport psychology. Although college student

classroom engagement is frequently examined in pedagogy literature (Scott, 2017), professional fields must foster interest, excitement, and joy among undergraduates. Yet, research and professional preparation in sport psychology tends to under-represent the complicated work that instructors do. Students who are engaged in the learning process are more likely to care about what they are learning and to implement higher-order thinking skills (e.g., analyzing information or solving problems) (Barkley, 2009). Although skilled teachers often incorporate active learning strategies, assessment methods are often less engaging. Sousa's (2006) assessment of student retention and teaching methods demonstrated the greatest retention rates among students who taught others and practiced by doing. Therefore, this presentation offers two strategies to engage students in teaching others and learning by doing for final projects in sport psychology classrooms.

The "teaching others" strategy uses a group video project where students create a short-film demonstrating a psychological construct discussed in class. Students teach or act out their chosen topic and record their presentation. Then, during finals week, students watch the videos and provide reflective peer feedback. The "learning by doing" strategy also leverages the power of video by asking students to demonstrate comprehensive course knowledge by acting as a mental performance consultant for their favorite sporting movie character. These aforementioned active learning and engaging final assignments will showcase strategies for effective implementation into sport and exercise psychology classrooms, as well as expected learning outcomes for students.

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## Youth Sport

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## 110

### **A REPORT OF MALE HIGH SCHOOL ATHLETES' DAILY MINDFULNESS, GOAL ORIENTATIONS, AND MINDFUL ENGAGEMENT ON THEIR TEAM**

*Susumu Iwasaki, Fort Lewis College, USA;  
Mary Fry, University of Kansas, USA*

Previous research in sport psychology suggest that individuals' goal orientations (i.e., personal definitions of success) in achievement contexts and mindfulness can be a key to optimize their sport experience and performance (e.g., Bühlmayer, Birrer, Röthlin, Faude, & Donath, 2017; Duda & Nicholls, 1992). The current study examined the relationship among daily mindfulness, task and ego orientations, and mindful engagement among athletes. Male high school athletes (N=164; Mage = 15.58, SD = 1.18) volunteered to complete a survey consisting of the Mindful Attention Awareness Scale – Adolescent (daily mindfulness), Task and Ego Orientation in Sport Scale (goal orientations), and the Cognitive Affective Mindfulness Scale – Revised (mindful engagement on the team). Structural Equation Modeling (SEM) was used to analyze the data. The final SEM model (Fit indices; Chi-square/df = 214.56/146, RMSEA = .05, CFI = .94, TLI = .92, and SRMR = .06) revealed significant paths both from daily mindfulness (R<sup>2</sup> = .60) and task orientation (R<sup>2</sup> = .47) to mindful engagement on the team, while ego orientation was significantly and negatively associated with daily mindfulness (r = -.30). Results suggest that assisting high school athletes to increase their daily mindfulness and fostering their task orientation may help enhance their mindful

engagement on their team. In addition, mindfulness base training may heighten their task rather than ego orientation, which may also be associated with their peak performance and overall positive sport experience. Strategies for enhancing mindful engagement will be discussed.

## 111

### ATHLETIC AND STUDENT IDENTITY DEVELOPMENT DURING THE FIRST TWO YEARS OF HIGH-SCHOOL IN STUDENT-ATHLETES

*Joonas Heinonen, University of Jyväskylä, Finland;*  
*Kaisa Aunola, University of Jyväskylä, Finland;*  
*Tatiana Ryba, University of Jyväskylä, Finland*

Student-athletes often prioritize their sport-related goals over education and may be at risk of developing an exclusive identification with the athlete role (Petipas, Van Raalte & Brewer, 2013). The first objective of the present longitudinal study was to examine student-athletes' identity profiles during the first two years of high school. Second, the role of different background variables, such as school success, gender and achievement goals in the development of these profiles were examined. A total of 391 (51% female) student-athletes, aged 15-16 at baseline, filled out both Athletic (AIMS; Brewer, Van Raalte & Linder, 1993) and Student Identity Measurement Scale (SIMS; Stambulova et al., 2015) two times during first (T1 & T2) and once during second year (T3) of their studies in Finnish sport high-school. Most of the information concerning background variables was gathered via questionnaire at T1. The results of cluster analyses demonstrated three qualitatively different identity profiles in the sample: 'Dual identity' profile characterized by a high level of athletic and academic identity, 'Sport identity' profile characterized by a high level of athletic identity and relatively low level of academic identity, and 'Uncommitted identity' profile being typified by relatively low levels of athletic identity with mediocre values of academic identity. At the beginning of high-school student-athletes were almost evenly divided between these profiles but at T3 Dual identity profile was represented by 45% of student-athletes. However, statistically significant stability was found for profile memberships between all three measurement points. The results showed that women were statistically significantly overrepresented in Dual group compared to the other two profile groups. Overall, these results suggest that student-athletes are not a homogenous group during high school. Further, practitioners in both school and sport context need to take into account the gender differences for boys and girls, separately.

## 112

### COACHES' PERCEPTIONS OF THEIR ATHLETES' MENTAL TOUGHNESS IN SPECIFIC SITUATIONS AND POSITIONS

*Courtney Novak, California State University Long Beach, USA;*  
*Madison Hunt, Long Beach State University, USA;*  
*Kiana Nua, California State University Long Beach, USA;*  
*Casee Wieber, California State University Long Beach, USA;*  
*Tiffanye Vargas, California State University, Long Beach, USA;*  
*Leilani Madrigal, Long Beach State University, USA*

Mental toughness (MT) is defined as a cumulation of implicit dispositions and learned behaviors, cognitions, and ideals that play a role in how an athlete assesses and reacts to stress-inducing situations and adversities while also maintaining composure and balance through times of success (Gucciardi,

Gordon, & Dimmock, 2008). From athletes' perspectives, competition (e.g., opponents, critical moments) and training (intensity, consistency) are situations that require mental toughness (Weinberg et al., 2017). However, in team sports, these situations may differ based on the role or position of the athlete. To date little research has been done on key positions in sport that require mental toughness. The purpose of this study was to examine high school coaches' perceptions of situations and positions in team sports that require mental toughness. A total of 15 high school coaches from sports including: soccer, softball, baseball, volleyball, and basketball from southern California participated in semi-structured interviews lasting approximately 45 minutes each. Qualitative responses indicated that many coaches expressed the need for mental toughness to be consistent; however, key situations in competition for mental toughness included when mistakes occurred, vital moments arose, and the score was close. In terms of positions requiring a greater degree of mental toughness, goalkeepers (soccer), pitchers and catchers (baseball/softball), guards (basketball), and setters (volleyball) were identified by the majority of coaches representing that sport. A total of 53% of the fifteen total coaches articulated that all positions require mental toughness regardless of sport. These findings support the notion that mental toughness is perceived as an important factor to adverse or challenging situations in competition, with certain positions potentially requiring a greater mental toughness than others. Simulating stress-inducing moments for specific positions in practice and providing feedback on appropriate responses may prepare athletes for the adversities they face in competition.

## 113

### COUNTERING THE TRAJECTORIES TOWARDS NEW FORMS OF VIOLENCE IN YOUTH: ENHANCING PROTECTIVE FACTORS THROUGH SPORTS

*Dean Ravizza, Salisbury University, USA*

Youth are increasingly embracing many forms of violent extremism including those perpetrated by terrorist organizations or other domestic violent extremist movements (Federal Bureau of Investigation 2016). While there is no clear pathway towards violent extremism in youth, compounded issues of marginalization and isolation have emerged as shared feelings in several cases (Hayes 2017). Efforts to prevent their participation have increasingly sought to involve youth, communities, and marginalized groups in a variety of programming to strengthen protective factors and reduce opportunities for engagement in violence (DHS 2016, Weine & Horgan 2014). Participation in sports offer a much-underutilized platform to address factors associated with violent extremism while enhancing opportunities for physical, psychological, cognitive, and social development (Hedayah 2015, UNESCO 2017). Yet, there is little knowledge of specific program content or the implementation strategies to produce positive outcomes to address this growing issue.

This research was conducted through a scoping literature review on youth engagement in new forms of violence, programs, and sports interventions in order to identify evidenced-based program models, effective practices, and other strategies that could inform prevention or intervention strategies. Field observations of community-based sports interventions aimed at preventing youth engagement in violent extremism yielded evidence that sports has the potential to strengthen the protective factors of youth at risk for participation in violent extremism through multidisciplinary,

inter-sectoral community-based approaches. The outcomes further extend the potential of non-formal actors such as coaches and community stakeholders to contribute to the enhancement of related social inclusion dimensions as set forth by Bailey (2006). These actors also facilitate the creation of safe spaces where youth can practice important interpersonal skills that encourage emotional competence needed to handle conflicts with higher stakes.

## 114

### EXPLORING PRONENESS TO SHAME IN FEMALE YOUTH VOLLEYBALL ATHLETES

*Mario Fontana, The College at Brockport, USA*

Fontana and Fry (2017) created a questionnaire to attempt to measure how high school-aged athletes might perceive shame in sport. The researchers created the Shame in Sport Questionnaire (SSQ) and found that athletes are likely to experience process shame (where athletes feel as if their effort or preparedness was not up to standard) and result shame (where athletes feel as if their performance was not up to standard). The initial study was conducted among high school wrestlers, but few females were surveyed. The purpose of this study was to further explore the SSQ with a high-school aged female athlete population. The questionnaire was administered to 137 club volleyball participants in a Midwestern city. In addition to being surveyed on the SSQ, the athletes were surveyed on their goal orientations by the Task and Ego in Sport Questionnaire (Duda & Nicholls, 1992). Athletes were also surveyed on their perceptions of the motivational climate via the Perceived Motivational Climate in Sport Questionnaire (Seifriz, Duda, & Chi, 1992) and the Caring Climate Scale (Newton et. al., 2007). Using structural equation modeling, it was revealed that athletes high in ego orientation were more likely to experience result shame while athletes high in task orientation were more likely to experience process shame. Additionally, it was revealed that a caring and task-involving motivational climate could positively influence proneness to shame by emphasizing process shame over result shame. These results are consistent with Fontana & Fry's (2017) previous research and suggest that female athletes in caring and task-involving environments are less likely to experience shame for things that are out of their control (performance outcomes).

## 115

### EXPLORING TENNIS PARENTS' SELF-PERCEPTION OF COMPETENCE, EMPOWERING FEEDBACK, AND CONCEPTUALIZATION OF PARENTING EXPERTISE

*Olivier Schmid, University of Bern, Switzerland;  
Jürg Schmid, University of Bern, Switzerland*

As an individual and costly sport where the sustained training and competition demands warrant active parental involvement, tennis has been an ideal setting to examine parenting issues (Gould, et al., 2008). The importance of providing autonomy-supportive parenting styles and appropriate support during competition were postulated as essential components of parenting expertise (Harwood & Knight, 2015). To date, parenting issues were predominantly investigated in the USA and the UK and from the coaches' and athletes' perspectives. The purpose of this study was to explore parents' perceptions of their own competences as tennis parents, to assess the autonomy-supportive

feedback they provide after competition, and to gain insight into how parents conceptualize parenting expertise. Parents (N = 245) of elite tennis players who competed at the Swiss Championship (across developmental stages U10-U18) completed an online survey including scale-items and open-ended questions analyzed inductively. All language areas of Switzerland (French, German, and Italian) were represented. Only 30% of parents reported having attended some parents related information sessions. Even though a wide majority of parents identified as providers of logistical support and, to a lesser extent social and emotional support, they self-reported as highly competent parents who learned their skills by experience and through other parents. Areas of improvement included preparing their child for competition and emotional control and coping skills during tournaments. After a match, feedback was parent-initiated and contingent on performance and results, reinforcing effort and providing praise or comfort. Only a minority of parents waited for their child to talk first and offered opportunities for self-reflection. Participants reported that expert parents keep tennis in perspective, first raise their child as a person, put their children's needs first, and promote autonomy during matches by staying calm and letting their children play without interfering. Implications for parenting education initiatives are offered.

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### FROM GLOVES TO LIFE: FOSTERING POSITIVE BODY IMAGE THROUGH A GIRLS BOXING PROGRAM

*Karisa Fuerniss, Northern Illinois University, USA;  
Jenn Jacobs, Northern Illinois University, USA*

Recently, there has been an influx of research examining how intentionally designed sport and physical activity programs can foster positive developmental outcomes for youth that transfer to life (Jacobs & Wright, 2017; Pierce, Gould, & Camiré, 2017). While researchers continue to shed light on areas such as the design, implementation and evaluation of programs that focus on facilitating life skill development and transfer, the research on how youth think about life skills learned through sport and consider transferring them to other settings is still emerging. Specifically, there is a need to examine what barriers youth perceive in this process, or how the sport setting might be viewed as incongruent to other life contexts (Jacobs, Lawson, Ivy, & Richards, 2017). Therefore, the purpose of this study was to a) describe the key components of an afterschool girls boxing program, b) examine if participants described learning skills that apply to life, and c) describe how youth negotiated using these skills within their respective life contexts. This study included a sample of seven adolescent females (M = 12.6 years old) involved in a girls' afterschool boxing program focusing on building positive body image and teaching body empowerment strategies. Three in-depth interviews were conducted that examined participants' understanding, perceived relevance, and motivation for using the body empowerment strategies taught in the program. Systematic observations, reflective coach journals, and ethnographic field notes complimented interview data. Results indicated that participants' perceptions of transfer were characterized by three themes: low self-esteem as a barrier to behavior change, body empowerment buy-in but not application, and fear of judgment by peers. Across these themes it was clear that the transfer process was mediated by participants' varying levels of confidence in both in the program and their social settings. Implications for research and practice are discussed.

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**RELATIONSHIPS BETWEEN COACHING CLIMATES AND ATHLETES' BURNOUT IN SCHOOL AND SPORTS**

*Sonja Into, Master's Student, Finland;*  
*Veli-Matti Perttula, Master's Student, Finland;*  
*Kaisa Aunola, Professor, Finland;*  
*Tatiana Ryba, University of Jyväskylä, Finland*

Coaches are important socializing agents for youth athletes (Horn, 2008) and coach-created motivational climates have been found to be associated with athletes' well-being (Bartholomew, Ntoumanis & Thøgersen-Ntoumani, 2010). The purpose of this study was to investigate (1) what kind of coaching climates can be found in sport high schools in Finland; and (2) how these coaching climates are related to student-athletes' burnout in school and sports. Moreover, moderating factors between coaching climates and burnout were investigated. A total of 411 athletes, aged 17-18, from seven sport high schools participated in this study. The participants filled in Empowering and Disempowering Motivational Climate Questionnaire—Coach (EDMCQ-C; Appleton, Ntoumanis, Quested, Viladrich & Duda, 2016) to measure their perceived coaching climate; and School Burnout Inventory (SBI, Salmela-Aro & Näätänen, 2005) and Sport Burnout Inventory-Dual Career Form (Sorkkila, Ryba, Aunola, Selänne, & Salmela-Aro, 2017) to assess athletes' burnout symptoms (inadequacy, cynicism and exhaustion) in school and sport, respectively. K-means cluster analysis and multivariate analysis of variance (MANOVA) were used to analyze the data. Three coaching climates were identified: disempowering, empowering and intermediate. Participants in disempowering coaching climate experienced higher levels of school and sport burnout than athletes in other two coaching climates' groups, whereas participants in empowering coaching climate had lower levels of school and sport burnout. Participants in intermediate group experienced lower levels of school and sport burnout compared to student-athletes in disempowering group. Grade point average (GPA) and time spent on schoolwork outside of school hours were found to moderate the relationship between the coaching climates and school burnout. The study findings support previous research on associations between coaching climates and athletes' wellbeing. In addition, it offers timely insights into the ways high school coaches may play a role in student-athletes' burnout within and also across domains of sport and school.

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**SELF-TALK OF JUNIOR ELITE TENNIS PLAYERS AND THEIR PARENTS IN COMPETITION**

*Véronique Boudreault, Laval University, Canada;*  
*Christiane Trottier, Université Laval, Canada;*  
*Martin. D. Provencher, Université Laval, Canada*

Parents play an important role in adolescent elite athletes' competitive experience. Accordingly, it is important to study both athletes' and parents' inner experience in competition to design appropriate interventions to improve their performance and well-being. Even though cognitions have the potential to inform us about the emotional experience of athletes and parents, to our knowledge, there are no studies addressing concurrent automatic self-talk during a competitive setting. Based on a constructivist paradigm, this multiple case-study

aimed to investigate junior elite tennis players' and their parent's self-talk in relation with emotions in a competitive setting. Semi-structured in-depth interviews were conducted with two cases (i.e., two athletes and their most involved parent) for three matches played in a major tournament. The interviews focused on self-talk for key events during the matches from the perspective of each participant. Similarities and differences between cases' self-talk were analyzed using narrative inquiry (Polkinghorne, 1995) and multiple case study (Yin, 2014). First, results highlight similarities in athletes' and parents' self-talk patterns through key events of the tournament. Notably, importance given towards winning the games is observed in the first case while importance given to emotional regulation is predominant in the second case. These similarities within each case questioned the role of parents' inner experience in the self-talk used by junior elite tennis players. Second, differences observed in each participant's self-talk reveals that emotional experience in competition is unique and related to each individual profile. This result highlights the importance for practitioners to consider individual subjective experience in intervention designs to improve athletes and parents' emotions and self-talk during competition.

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**SHARING THE DINNER TABLE WITH YOUR OPPONENT: SIBLING RIVALRY IN SPORT**

*Keyana Spivey, Long Island University- Brooklyn, USA*

Sibling rivalry is defined as the feeling of competitiveness and ambivalence between siblings engaged in sport (Cole, 2015). According to Davis and Meyer (2008) siblings closer in age have a higher likelihood of mental toughness, family dynamics, and emotional involvement which influences sibling rivalries in competition. In relation to sport, the dynamic is often played out at home by one child praised more for their athletic talents which can place strain on the parent-child, and sibling relationships. Left unaddressed the consequences of sibling rivalry include hostility between siblings as well as children feeling un-favored by the parent (Suitor et al., 2009). The presenter is a Certified Mental Performance Consultant in training whose work is primarily with youth athletes and parents. While facilitating a workshop for parents and coaches of a youth soccer club questions from both parents and coaches on the best way to address siblings competing against each other and how to manage one sibling being more athletically talented than the other arose. Considering the broader professional implications and training benefits for students and professionals in the fields, the goal of this poster is to provide attendees with an overview of sibling rivalry, situations that foster this tension, common behaviors and cognitions associated with rivalry, consequences to such interactions, and skills for working with youth coaches and parents. Furthermore, implications for the field of sport and exercise psychology include: 1) educating parents and coaches on how to handle in-field competition between siblings, 2) teaching athlete's skills to build confidence, resilience, as well as a supportive family sport culture, and 3) methods for coping with negative feelings towards siblings in sport.

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**STRATEGIES TO IMPROVE SELF-EFFICACY IN HIGH SCHOOL ATHLETES**

*Madison Hunt, Long Beach State University, USA;  
Matthew Dove, Long Beach State University, USA;  
Sungjun Park, Long Beach State University, USA;  
Autumn Fox, Long Beach State University, USA;  
Madeline Hayford, Chevron, USA;  
Sara Reed, Long Beach State University, USA;  
Nicole Blumer, Long Beach State University, USA;  
Tiffany Vargas, California State University, Long Beach, USA;  
Leilani Madrigal, Long Beach State University, USA*

At the high school level, athletes are required to balance responsibilities, adapt to new social environments, and more specifically, learn performance techniques instrumental to their sport. Therefore, self-efficacy is crucial within this population due to the daily challenges they experience: balancing academics, sport participation, extracurricular activities, and social demands of high school (Goldberg & Chandler, 1995). Based on direct consultation sessions with high school teams comprised of individual and team sports, low self-efficacy was determined to be the most prevalent psychological barrier that athletes encounter. The purpose of this presentation is to discuss potential strategies in fostering self-efficacy when consulting with high school athletes. By implementing a season-long mental training program, a Certified Mental Performance Coach (CMPC) can provide skills to athletes to not only improve their self-efficacy, but also improve their athletic performance (Mamassis & Doganis, 2004). Some situations may not allow a CMPC enough time to conduct a season-long mental training program. Therefore, implementing one or two mental skills to improve self-efficacy such as, goal setting, self-talk, and imagery may be more feasible (Bandura, 1997; Chang et al., 2014; Short et al., 2002). Positive self-talk can be practiced by promoting cognitive reframing of negative thoughts into positive ones and also by creating self-affirmations for each athlete. These affirmations can then be used in the enhancement of imagery scripts where the goal is to utilize vicarious experience as a method to improve self-efficacy. Goal setting with poster boards is very helpful within teams to reach both personal and team goals as a tangible way to visually see accomplished goals. Utilizing time to teach mental skills to enhance self-efficacy at the high school level is important as it can yield positive benefits to increase enjoyment, build overall confidence, and enhance performance in sport.

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**THE COACH-PARENT RELATIONSHIP IN COMPETITIVE FIGURE SKATING: AN INTERPRETIVE DESCRIPTION**

*Jessie Wall, Student, Canada;  
Keshia Pradhan, Student, Canada;  
Leah Baugh, Student, Canada;  
Mark Beauchamp, Professor, Canada;  
Sheila Marshall, Professor, Canada;  
Richard Young, Professor, Canada*

The involvement of parents and coaches, and how they relate and work together can either facilitate or debilitate youth experiences and development in sport. Among the various relationships between participants in youth sport, the parent-

coach relationship has received comparatively less attention in the literature. The purpose of this study was to understand how parents and coaches experience the coach-parent relationship in competitive figure skating. Specifically, this study addressed two research questions: (a) How do parents and coaches describe their experiences of the coach-parent relationship in competitive figure skating? and (b) What are the patterns and themes that characterize this relationship? Using interpretive description methodology, 12 mothers of competitive figure skaters (average age = 16 years; average years in figure skating = 9) and 12 coaches (average years of experience = 25) participated in individual semi-structured interviews. All interviews were transcribed verbatim and analyzed using conventional content analysis and constant comparative techniques. Findings indicated that parents described their experience of the coach-parent relationship on a spectrum from negative and distant, to positive and enjoyable, while coaches described their experience as mostly positive and enjoyable but with the potential for the relationship to be challenging and contentious. The parent-coach relationship was characterized by different emphases on relationship importance within the parent-athlete-coach triad and different intensities of communication, trust, views on expertise, and developmental orientation towards the athlete. Differences between experienced and ideal, and functional and non-functional relationships emerged. Overall the parent-coach relationship seems to be fluid, changing across the athletic career, and influenced by contextual factors such as athletes' developmental age, level of competition, and organizational context. Understanding the parent-coach dyad not only extends the extant literature on interpersonal relationships in sport but is also important for facilitating positive youth sport environments, youth development, and the quality of experiences for those engaged in competitive sport.

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**THE ROAD TO SUCCESS: UTILIZING NFL PLAYERS' ATTRIBUTIONS TO SUCCESS TO SUPPORT YOUTH DEVELOPMENT**

*Tara Hegg, USA ; Jessica Bartley, University of Denver, USA*

This presentation explores common themes and premises shared by National Football League (NFL) players when deliberating on their path to success. "Success" in this case is defined as playing for at least three years in the NFL. In addition, the participants were asked to elaborate on how they overcame adversities they faced in their journey to the NFL. The purpose of finding these common themes were to potentially supplement youth sport development programs, in combination with future research. The theoretical premise behind the investigation of these themes utilized Deci and Ryan's (1985) self-determination theory, as well as Vallerand and Losier's (1999) integrative theory of motivation in sport. In coding the participants' answers, several themes arose which fit into the key dimensions posited in both theories; the themes included autonomy, competence, relatedness, cooperation, and coaches' behavior. These findings could suggest that fostering development of these attributes could be beneficial in cultivating a nurturing and encouraging environment in youth athletic development programs.

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**USING EVIDENCE-BASED PSYCHOLOGICAL DIAGNOSTICS FOR TALENT DEVELOPMENT: AN APPLICATION EXAMPLE IN AN ELITE GERMAN YOUTH SOCCER ACADEMY**

*Oliver Höner, University of Tübingen, Institute of Sports Science, Department Sport Psychology and Research Methods, Germany;*  
*Thorsten Leber, VfB Stuttgart / University of Tübingen, Germany;*  
*Philip Feichtinger, University of Tübingen, Germany*

Soccer is one of the most popular sports in the world (Kunz, 2007). In Germany, more than a million children and adolescents participate in organized soccer and dream of a professional career as an athlete. However, only a very small number of these players make it to the elite level. To provide an effective practice environment for the most promising individuals, the German soccer talent identification and development (TID) program promotes players from the age group Under12 to Under19. As part of this program, the top 1% of all players are developed within one of the 55 professional clubs' youth academies.

Within the complex TID process, sport psychology services (i.e., counseling, training, and coaching) have become more important, and psychological characteristics have received increasing consideration in sport talent research (Mann et al., 2017). Recent systematic reviews demonstrate empirical evidence of personality-related factors' relevance for success in soccer (Gledhill et al., 2017; Murr et al., submitted). However, due to the relatively small proportion of performance criteria explained by psychological characteristics, assessments like self-report questionnaires should not be used as a tool for talent identification, but rather to support and monitor talent development (Höner & Feichtinger, 2016).

Taking this consideration into account, the present study investigates sport psychology services at a German Bundesliga club's youth academy. These services are based on scientifically sound diagnostics addressing motivational, volitional, emotional, and self-referential cognitive characteristics (Feichtinger & Höner, 2014). The German Soccer Association offers these diagnostics, including nationwide reference-values, to all youth academies. As part of the talent development process, these diagnostics can be used for psychological feedback to foster players' self-reflection and as a starting point for applied psychology services. Furthermore, coaches and sport psychologists can help players develop more holistic strategies to fulfill their potential.

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**Coaching**

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**A SYSTEMATIC OBSERVATION OF THE IN-GAME BEHAVIORS OF A HIGHLY SUCCESSFUL COLLEGIATE VOLLEYBALL COACH DURING A NATIONAL CHAMPIONSHIP SEASON**

*Andrea Becker, California State University, Sacramento, USA*

Of all of the factors within sport that can impact participants' experiences, the role of the coach is arguably one of the most powerful (Becker, 2012). Numerous studies have examined coaches' characteristics and behaviors to gain insights

into the coaching process (Gilbert & Trudel, 2004). The majority of this research comes in the form questionnaires and to a smaller extent, observations (Becker & Wrisberg, 2008; Kahan, 1999). While questionnaires provide valuable information regarding athletes' preferences and perceptions of coaching behaviors as well as coaches' perceptions of their own behaviors, observational studies have the potential to provide more objective and detailed accounts of what makes certain coaches more successful. However, the majority of research has been conducted in practice settings rather than games. A recent review of the coaching literature highlighted this gap in the literature and suggested that our understanding of coaching behaviors will remain incomplete until we conduct observations "in the range of contexts where coaching takes place" (Cope, Partington, & Harvey, 2017; p. 2048). The primary purpose of this study was to fill this gap by examining the in-game behaviors of a highly successful NCAA Division I Collegiate Men's Volleyball Coach during a National Championship season. The coach was video recorded with a wireless microphone for 15 games including the playoffs and national championship. Over 26 hours of data were transcribed verbatim and analyzed utilizing multiple methods to account for the type of behavior exhibited, the timing of behavior, situational outcomes, tone of message, and the various categories on pre-existing observational instruments including the Arizona State Observation Instrument (Lacy & Darst, 1984) and the Assessment of Coaches Tone (Erickson, Côté & Horn, 2015). A comprehensive overview of results from both the quantitative and qualitative analyses of this coach's in-game behaviors will be presented.

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**ACQUISITION OF KNOWLEDGE AMONG YOUTH DISABILITY SPORT COACHES**

*Pierre Lepage, McGill University, Canada;*  
*Gordon Bloom, McGill University, Canada*

The World Health Organization recently estimated that over one billion individuals have reported some kind of disability. Within this population, 180 to 220 million are youth, 80% of them living in developed countries (United Nations, 2016). For example, the United States, has over 5 million youth living with a disability, with nearly 1 million having a physical disability. Youth with physical disabilities are statistically less physically active than youth without an impairment, affecting their health and quality of life. Having youth with physical disabilities engaged in sport constitutes a way to increase their level of physical activity and improve their health. The acquisition of these benefits can be facilitated by the presence of trained and skilled coaches, particularly in youth (disability) sport. The purpose of the study was to gain an understanding of the learning experiences and acquisition of knowledge of youth sport coaches in disability sport. Five experienced youth disability sport coaches participated in individual interviews and the data were analyzed using a hierarchical content analysis. The inductive analysis revealed that all coaches had unique developmental pathways, yet none of them planned on coaching in youth disability sport. Furthermore, the majority of learning opportunities experienced were informal, particularly through mentoring, trial and error, or communication with their young athletes or support staff. The current findings are of interest to coaches in youth disability sport since most research in this area has focused on elite or Paralympic coaches. Moreover, these results raise awareness by providing direction and guidance on effective coaching practices in youth disability sport and ways of acquiring

that information. In fact, having more skilled coaches would enhance the sport experience, and hopefully encourage more youth with physical disabilities to get involved in sport.

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### **“COACH AS YOUTH WORKER”: A PILOT STUDY EXAMINING INTERN COACHES’ EXPERIENCES IN A NOVEL COMPETENCY-BASED TRAINING**

*Fritz Ettl, Butler University, USA;*  
*John McCarthy, Boston University, USA;*  
*Val Altieri, Jr., Boston University, USA*

While competency frameworks for sport coaches (NASPE, 2006; NCCP, 2005) and youth workers (Astroth et al., 2004) exist to help practitioners understand what to know and do, there is a scarcity of models that have synthesized competencies from both fields to prepare youth coaches for the overlapping demands of their roles and responsibilities (Bodey, et al., 2009; Gould et al., 2006). The current qualitative study examined how five graduate student intern coaches experienced a novel “Coach as Youth Worker” competency-based training. The training was developed using cross-disciplinary competencies for a responsibility-based youth development program that served a high-needs urban high school. Both the youth program and coach training were designed using Hellison’s (2011) Teaching Personal and Social Responsibility (TPSR) youth development framework as a curricular foundation—a model proven (Walsh, 2016) to effectively support youth development programming. Since TPSR also identifies teaching strategies (Wright & Craig, 2011) that help practitioners promote youth development outcomes, those strategies were combined with coaching and youth worker competencies to provide descriptors of the skills and behaviors participants were taught to practice with youth. Focus groups and interviews thematically analyzed (Braun & Clarke, 2006), suggest that participants perceived to have developed certain skills, behaviors, and increased confidence as practitioners. These findings support the growing body of coach education literature that suggest competency-based training frameworks can help coaches improve coaching efficacy (Brachlow & Sullivan, 2005, 2006), especially within situated-learning (Lave & Wenger, 1991) contexts. Suggestions for coach educators and leaders of community-based physical activity programs who develop youth coach training programs include: begin training design by choosing context-specific competencies that include TPSR strategies, use simulations and role-play to help coaches practice targeted skills and behaviors, and engage coaches in a community of practice for non-formal learning and group reflection.

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### **COACHING ABOVE THE PHYSICAL: DEVELOPING THE HOLISTIC ATHLETE BY INTENTIONALLY COACHING MENTAL SKILLS AND CHARACTER**

*William Stinson, Emporia State University, USA;*  
*Mark Stanbrough, Emporia State University, USA*

All coaches coach the physical dimension but only 20% intentionally and systematically coach mental skills and character development (Duke & Bonham, 2014). If coaches are to truly make a difference in lives, coaches must be intentional in thinking about how to incorporate mental and life skills that go above the physical dimension. This intentionality begins

with developing a clear coaching philosophy and identifying mental and life skills that are core to the sport program and establishing relationships to allow the planned development to come into action (Gould & Carson, 2008; Gould, Collins, Lauer, & Chung 2007; Hellison, 2011; Weis & Bjornstal, 2009).

Intentional coaching practices need to be set in place in order for the sport experience to promote mental and life skills development. In support of the powerful influence that coaches have to transform lives, the International Sport Coaching Framework (ICCE, 2013) acknowledges that coaches should take a holistic approach to athlete development, including considering life skills.

Special emphasis is placed on developing practice plans that intentionally coach the mental skills and character development. Evidence and ideas will be presented to help coaches integrate psychological components and life skill lessons into daily routines to help athletes develop holistically. The practice plans will emphasize: (1) having fun, which is the number one reason athletes participate, (2) positive conditioning that stresses conditioning is positive and should be desired for improvement, (3) mental skills training that can be implemented by the coach and athlete for improved performance, and (4) character development which will develop life skills and may be the most important thing coaches do.

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### **EXPLORING THE ROLES OF COMMITMENT, RESILIENCE, AND GRIT IN COACH BURNOUT**

*Peter Olusoga, Sheffield Hallam University, UK;*  
*Korey Hallett-Blanch, Sheffield Hallam University, UK;*  
*Jack Herold, Sheffield Hallam University, UK;*  
*Dom Smith, Sheffield Hallam University, UK;*  
*James Rumbold, Sheffield Hallam University, UK*

Burnout, an enduring experiential syndrome characterized by emotional and physical exhaustion (EE), sport devaluation (DEV), and reduced personal accomplishment (RPA), is most often conceptualized as a response to chronic stress. Entrapment (commitment based on lack of attractive alternatives, high investments, social pressure to continue, perceived high costs and low benefits) has been linked with an increased likelihood of burnout (Raedeke, Granzyk, & Warren, 2000). Although ‘positive’ traits like resilience and GRIT might be protective against burnout, it is plausible that persistence in the face of unabating stress might result in an increased likelihood of burnout for coaches who also feel trapped in their roles. This study explored the roles of commitment, resilience and grit in coach burnout. One hundred and seventy four full- and part-time coaches (44 women, 130 men), coaching at a range of competitive levels, completed an online questionnaire measuring GRIT (GRIT-S; Duckworth & Quinn, 2009), Resilience (Brief Resilience Scale; Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008), Commitment (Raedeke, Granzyk, & Warren, 2000), and Burnout (Coach Burnout Questionnaire; Malinauskas, Malinauskiene, & Dumciene, 2010). MANOVA revealed a significant overall effect of commitment profile on the three dimensions of burnout. Specifically, entrapped coaches reported significantly higher EE and DEV than attracted/low commitment coaches. Multiple regressions revealed that coaches’ commitment profiles accounted for 14.5% of the variance in EE ( $R^2=14.5$ ,  $F(3, 169)=9.52$ ,  $P<.01$ ), with entrapment accounting for 12.3% of the variance ( $\beta = 1.279$ ,



$p < .05$ ). Resilience was negatively correlated with all three burnout dimensions, and may represent a protective factor against burnout. GRIT, however, was only negatively correlated with RPA. While encouraging perseverance might be helpful for maintaining coaches' perceptions of accomplishment, it does not appear to be related to lower levels of EE or DEV. The findings have important implications for the design of future coach burnout interventions.

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### HIGH SCHOOL COACHES' SUPPORT OF SPORT PSYCHOLOGY CONSULTANTS AND WILLINGNESS TO SEEK THEIR ASSISTANCE

*Christina Villalon, University of North Texas, USA;*  
*Taylor Casey, University of North Texas, USA;*  
*Rebecca Zakrajsek, University of Tennessee, USA;*  
*Scott Martin, University of North Texas, USA*

Although research has shown the benefits of psychological skills training for athletes, few studies exist that examine coaches' use and support of sport psychology services, especially at the compulsory educational level. Thus, the purpose of this study was to extend past research on college coaches' support of sport psychology consultants (Wrisberg et al., 2010) by examining head coaches at the high school level. Participants ( $N = 2,013$ ) completed an online questionnaire examining their support of sport psychology consultants and willingness to seek mental training services. T-tests indicated that female head coaches were more willing to encourage their athletes to see a sport psychology consultant ( $p < .001$ ) and more willing to seek assistance from a sport psychology consultant ( $p < .05$ ) than male head coaches. Female head coaches also perceived more benefit than male head coaches to having a sport psychology consultant working full-time in the athletic department ( $p < .001$ ), as well as having a sport psychology consultant present at practices ( $p < .001$ ), competitions ( $p < .05$ ), and athletic injury rehab ( $p < .05$ ). Overall, coaches were most supportive of a sport psychology consultant attending athletic injury rehab ( $p < .001$ ), and least supportive of having the consultant attend practices ( $p < .001$ ). Additionally, more frequent interaction between coach and sport psychology consultant was correlated with a greater willingness to seek mental training services ( $p < .001$ ). These findings support previous research indicating that gender-related experiences may influence coaches' perception of sport psychology and mental training. Therefore, when working with high school teams, sport psychology consultants need to be sensitive to the unique characteristics of the sport and aware of the support for mental training services of those involved.

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### REFLECTIONS IN THE POOL: THE LACK OF SUICIDE EDUCATION FOR ATHLETIC COACHES

*Sebastian Harvey, USA;*  
*Clayton Kuklick, University of Denver, USA;*  
*Brian Gearity, University of Denver, USA*

Despite continuous attempts to decrease the prevalence of mental illness, including suicidal ideation, in the United States, suicide is still the second largest cause of death of people under 24 years of age (Ferron et al., 1999; Harrison

& Narayan 2003; Oler et al., 1994; Page et al., 1998; SPRC, 2004). This mental health epidemic also presents itself in the athletic community (Sabo et al., 2005). In fact, athletes may even be at increased risk of developing a mental illness due to increased demands (e.g., time, physical, emotional, mental) placed upon them (Etzel et al., 2006). Comparable increased demands may also put athletic coaches at greater risk of developing similar mental illnesses (Frey, 2007). Using a narrative psychology approach (Gearity, 2014), our study delved into the lived experiences of a former collegiate-level swimmer dealing with self-suicidal ideation, who would later, as an athletic coach, deal with a non-fatal suicide attempt from an athlete he coached. The narrative problematizes the current state of education and resources for the athletic community regarding mental illness. Finally, we reflect upon how this narrative can serve as a pedagogical tool in preparing coaches to best serve the needs of their athletes, and practice self-care. Implications of this study extend to mental performance consultants who work with either athletes or coaches and are best suited for managing mental health and making appropriate clinical referrals.

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### SOCIAL CHANGE 101: POSITIVE SPORT AS A SOCIALLY RESPONSIBLE ALTERNATIVE TO 'TRADITIONAL' SPORT

*Aleksandra Pogorzelska, Foundation of Positive Sport, Poland;*  
*Artur Poczwardowski, University of Denver, USA;*  
*Tomasz Kurach, Foundation of Positive Sport, Poland*

Contemporary institutions face enormous challenges in their quests to introduce changes into the highly dynamic social, cultural, and economic environments. According to Kurt Lewin (Nowak & Valacher 1998, 2002), social change can be facilitated in three phases: (a) unfreezing (disrupting the status quo), (b) moving (making the actual change), and (c) freezing (the accomplished change). Recently, Positive Sport (PS) was developed as a social movement in Poland, and can be viewed as a structured way to make a meaningful social impact on the present sport practices. PS posits that pursuing highest performance levels does not need to occur at the expense of positive experiences and holistic growth among individuals, groups, teams, and organizations. Thus, it became a valuable alternative to the common practices of 'traditional' sport. This 'enriching' rather than 'destroying the old' approach is consistent with the unfreezing phase that postulates taking small steps (e.g., defining of PS; developing a group of 'PS ambassadors' [publically recognized sport stars]); growing a group of 'PS enthusiasts'). In the moving phase, these groups start to apply PS principles in their respective sport settings as coaches, administrators, sport psychologists, parents, etc. As a result, new (and large) projects are completed, new communication channels are built, and PS procedures and principles are modeled with a greater geo-social reach. In the freezing phase, consolidation of the introduced elements of the change is accomplished (e.g., post-master's university program in SP, the Foundation for Positive Sport, externally funded research projects, numerous workshops around the country for different sports). This poster will detail the three phases with the lists and brief descriptions of all relevant activities, campaigns, and events that continue to grow PS as promising sport practice in children and youth sport, while gaining traction among high skill level sports.

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**THE RELATIONSHIP BETWEEN ATHLETES' PERCEPTIONS OF THEIR COACH'S COMMUNICATION REGARDING CONCUSSION CARE SEEKING AND ATHLETES' INTENTIONS TO REPORT CONCUSSION SYMPTOMS**

*Jeffrey Milroy, University of North Carolina at Greensboro, USA;  
Erin Reifsteck, University of North Carolina at Greensboro, USA;  
David Wyrick, University of North Carolina at Greensboro, USA*

Coaches can establish and nurture a culture of care seeking through their verbal communication with athletes, which can in turn have a significant impact on athletes' intentions to seek care following injuries (Curry, 1993; Hollembeak & Amorose, 2007), including reporting concussion symptoms (Kroshus et al., 2015). Ideally, coaches convey positive messages that encourage concussion care seeking behaviors among their athletes (e.g., open dialogue about concussion safety). The purpose of this study was to determine the extent that college athletes' perceptions of coach communication regarding concussion care seeking is associated with student-athletes' 1) intentions to encourage other athletes to report their symptoms, and 2) intentions to report their own symptoms to a coach or a member of the sports medicine staff. We expected coach communication that was perceived to be promoting concussion care seeking would predict greater intentions to engage in care seeking behaviors. Data were drawn from a larger web-based survey of 2,856 collegiate student-athletes (51.6% female, 14% African American, 71% Caucasian, 15% Other) across all three NCAA divisions. Results of stepwise multiple regression analyses indicated that being told by a coach to watch out for other athletes was most strongly associated with student-athletes' intentions to report their own symptoms to a coach ( $\beta = .47, p < .001$ ) or sports medicine staff ( $\beta = .33, p < .001$ ) as well as their intentions to encourage other athletes to report symptoms ( $\beta = .35, p < .001$ ). In other words, when coaches communicate the importance of looking out for the well-being of teammates, athletes are more likely to intend to engage in care seeking behaviors. Based on findings from this study, sport and exercise psychology practitioners should help coaches develop positive communication strategies to create a supportive environment that clearly encourages student-athletes to seek care for concussions and other injuries.

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**Collegiate Sport**

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**AN ANALYSIS OF VALUE DRIVEN COMMITTED ACTION IN DIVISION 1 COLLEGIATE TRACK AND FIELD ATHLETES**

*Michael Clark, University of Wisconsin-Milwaukee, USA;  
Brandon Orr, University of Missouri, USA*

Acceptance and Commitment Therapy (ACT) is a third wave behavior therapy which targets 6 processes of change which include acceptance, mindfulness, committed action, cognitive defusion, self as context, and valued living (Hayes, 1999). While research integrating ACT into athletics exists (PMA: Goodman et. al., 2014, Brirrer & Morgan, 2012, Petrillo et. al., 2009; Values: Peachey & Bruening, 2012), little research has been conducted on examining the relationship between values and committed action in collegiate track and field. ACT theory suggests that values driven action increases quality of

life by increasing psychological flexibility, yet a differentiation between individual values and team values has not been made. The Valued Living Questionnaire (VLQ), Committed Action Questionnaire (CAQ-18), Acceptance and Action Questionnaire (AAQ-II), Athlete Satisfaction Questionnaire (ASQ), and coach provided team values were analyzed using Regression Analysis. Participants were Division I track and field student-athletes at a major university (n=102). Results investigated the influence of team values on the relationship between individual values and how this interaction impacts committed action and quality of life. Implications for practice and research will be discussed. Particular attention is devoted to how defining and pursuing team values may affect athletic performance and mental health.

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**CHALLENGES AND OPPORTUNITIES IN CONDUCTING MULTIDISCIPLINARY APPLIED RESEARCH ON EXPERTISE DEVELOPMENT WITHIN AN INTERCOLLEGIATE TEAM SPORT**

*Kristin Wood, University Of Minnesota, Minneapolis, USA;  
Diane Wiese-Bjornstal, University of Minnesota, USA;  
Francesca Principe, University of Minnesota, USA;  
Joseph Kronzer, University of Minnesota, Twin Cities, USA*

At elite levels of team sport performance, the abilities to develop peak fitness and performance technique, accurately read the game in terms of court or field sense (e.g., recognizing what plays opponents are about to execute) (Starkes, 1987), make high-quality decisions, and execute effective performance strategies separate expert, successful athletes from their less successful counterparts. The role of coaches is to use strategies characteristic of deliberate practice (Ericsson, Krampe, & Tesch-Römer) in order to teach, train, and develop athlete autonomy and confidence in perceptual, psychological, cognitive, and motor skills associated with expert sport performance. The purpose of our multidisciplinary applied research project is to examine the interconnections among developing expertise in perceptual, psychological, cognitive, and motor skills, and their connections to deliberate practice strategies utilized by team coaches and training staff via a naturalistic analysis of an elite intercollegiate team training and performance environment. Partnerships between researchers, coaches, and athletes within the context of this multidisciplinary, longitudinal, naturalistic research has posed some unique challenges and opportunities that are the focus of this presentation. Challenges of the project include capturing momentary snapshots of the interplay between physiological, cognitive, perceptual, social, and psychological expertise and identifying their relative influence on total sport performance. A shortage of relevant measures of deliberate practice and expertise across diverse skill sets has also challenged investigators to develop measurement tools. Opportunities of the project include the depth of information collected from multiple sources simultaneously within the natural environment via research methodologies such as ethnography, interviews, audio diaries, fitness achievements, and performance statistics. Evidence-based practice implications of the project include best practices for conducting longitudinal, multidisciplinary applied research via partnerships with intercollegiate sport teams, and identifying deliberate practice coaching approaches and strategies that are effective in developing multiple forms of expertise connected to game performance outcomes.

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**EASING THE TRANSITION: A PROPOSED PROCESS GROUP FOR SENIOR COLLEGIATE STUDENT-ATHLETES***Julia Cawthra, Indiana University, USA*

Every athlete retires at some point, and yet challenges abound when the time to transition out of sport and into the workplace happens. College athletes are well-prepared for workplace settings that are similar to their sport environments, yet ill-prepared for the plethora of changes that happen between their last whistle and first day on the job. Notably, the transition out of sport is challenging even when it is expected, and the difficulty in transitioning to the workplace has been shown to be at least minorly difficult for more than three quarters of athletes at the elite level (Ungerleider, 1997). Using Schlossberg's (1981) Model of Transition, the process and psychoeducational group would focus on enhancing skills for athletes related to building social support networks, preparation for uncertainty, and adjustment to a new, holistic identity. Creating a bridge between previous transition experiences and the upcoming transition would infuse a sense of confidence, similar to intra-individual similarity proposed by Danish and D'Augelli (1980) and unveil transferable skills athletes already possess (McKnight, Bernes, Gunn, Chorney, Orr, & Bardick, 2009). Incorporating psychological, social, and physical aspects of the transition would be beneficial as well (Smith & McManus, 2008; Gordon & Lavalley, 2012). Accounting for possible athletic identity foreclosure, recovery from said foreclosure would focus on exploration of meaning and psychological well-being in future workplace settings (Smith & McManus, 2008). Additional emphasis on social adjustment involved in termination of sport would assist in the gaps previously seen in programming focused on financial management and career exploration (Smith & McManus, 2008). Using eudaimonic well-being to emphasize self-discovery, autonomy, and purpose in life (Waterman et al., 2010) will guide the processing for the group and lead to a healthier adjustment to the workplace after sport termination.

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**EFFECTS OF MOTIVATION AND TIME DEMANDS ON ACADEMIC PERFORMANCE OF FILIPINO STUDENT ATHLETES***Jay Santos, University of Florida, USA;  
Jan Vincent Abella, Central Luzon State University, Philippines*

Western literature has shown that academic motivation is a significant predictor of academic performance of college athletes (Gaston-Gayles, 2004), and that non-revenue athletes have higher academic commitment (Simons, Van Rheenen, & Covington, 1999). This study investigated the effects of motivation and time demands on the academic performance of student-athletes in a state university in the Philippines. The athletes in this study are considered non-revenue athletes because there is virtually no revenue generated as a result of their participation in intercollegiate athletic competition. As such, it is hypothesized that its student-athletes have more academic time commitment, higher academic motivation, and thus, higher academic achievement.

Participants were composed of 80 student-athletes, which represent more than one-thirds of the institution's student-athlete population. They answered a survey questionnaire that included Gaston-Gayles' (2005) Student-Athletes' Motivation towards Sports and Academics Questionnaire (SAMSQAQ),

which measures Career Athletic Motivation (CAM), Academic Motivation (AM), and Student Athletic Motivation (SAM).

Results showed that academic motivation is associated with in-season GPA ( $r = .611$ ). No significant relationship was found between time demands and academic performance. The participants in this study spent more time in academics than athletics in off-season and more athletics than academics during in-season, have higher student athletic motivation, and relatively higher academic achievement. The results in this study clearly contradicts previous studies on in-season and off-season academic performance (Scott, Paskus, Miranda, Petr, & McArde, 2008), and time demands (NCAA, 2016), while the academic motivation-performance association is supported. In view of this, further explorations on the uniqueness of Filipino student-athlete experience needs to be conducted, particularly those concerning the factors affecting two most salient aspects of intercollegiate competition: academics and athletics. Findings of this study are relevant to the athletic and academic administrators who wish to design a program aimed at the holistic development of student-athletes, most specifically their academic achievement.

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**EXAMINING THE EFFECTS OF BASELINE FITNESS AND RECOVERY INTERVENTION ON MALE COLLEGIATE SOCCER PLAYERS' PERCEPTIONS OF PERFORMANCE READINESS***Stacy Gnacinski, Drake University, USA;  
Nathanael Seaberg, Drake University, USA;  
Megan Brady, Drake University, USA*

For collegiate soccer players, research indicates that muscle soreness and fatigue are related to athletes' perceptions of performance readiness. Athletes often experience heightened perceptions of muscle soreness and fatigue during the pre-season, due to the heavy training loads. Athletic training recovery interventions (i.e., external pneumatic compression [EPC] or electrostimulation [ES] on lower limbs) are commonly utilized to minimize symptoms of soreness and fatigue, theoretically promoting performance readiness (Martin et al., 2015; Tessitore et al., 2007). However, researchers have yet to examine the effects of baseline fitness and recovery interventions on perceptions of readiness during the pre-season. Thus, the purpose of the current study was to examine the effect of baseline fitness and recovery intervention on collegiate athletes' perceptions of soccer readiness during a 2-week pre-season training camp. Male collegiate soccer players ( $N = 23$ , Mage = 19.5 years) were matched by position and randomly assigned to one of two recovery interventions that were administered daily by athletic training staff (EPC [ $n = 10$ ], ES [ $n = 13$ ]). Athletes were also categorized by baseline fitness levels, as determined by coach's interpretation of fitness test results (i.e., pass or fail). Perceptions of readiness were recorded daily using Fitfor90 ([www.fitfor90.com](http://www.fitfor90.com)), serving as the dependent variable of interest. Main and interaction effects were examined using a two-way ANOVA, and an alpha level of .05 was used to determine statistical significance. Results of the two-way ANOVA revealed a non-significant main effect of baseline fitness on perceptions of readiness ( $F[1,23] = 0.001$ ,  $p = .974$ ), a non-significant main effect of recovery intervention on perceptions of readiness ( $F[1,23] = 0.095$ ,  $p = .761$ ), and a significant interaction effect ( $F[1,23] = 11.102$ ,  $p = .004$ ). In terms of practical significance, the results of the current study suggest that baseline fitness levels should be considered when selecting recovery interventions.

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**EXPLORATION OF ADJUSTMENT DURING THE RETIREMENT TRANSITION FROM COLLEGIATE ATHLETICS**

*Olivia Knizek, Arizona State University, USA;  
Nicole Roberts, Arizona State University, USA;  
Lindsey Mean, Arizona State University, USA*

The challenges that face student-athletes when they retire from formal sport participation coincides with their loss of their athletic identity (how much they identify with their athlete role), often geographic upheaval, uncertainty of the future regarding alternate roles, and change in social support systems which makes this period more difficult to adjust to. This study explored the subjective experiences of the retirement transition of graduating student-athletes. The current study aims to illuminate this unique experience through qualitative investigation into the collective experiences of student-athletes to discern overarching relevant themes common throughout this experience. The participants were 13 student-athletes whom graduated in the Spring Semester of 2017 (May- June 2017), played their sport at an National Collegiate Athletics Association Institution (NCAA) sport for their institution at the Varsity level, and were not continuing to play their sport at the elite level. By utilizing thematic analysis of quantitative semi-structured interviews, a rich data source allowed for more in-depth investigation of different factors affecting personal adjustment throughout this period by interviewing participants 5-8 months post-graduation. The five overarching themes identified were: the need for social connection, the impact of a goal-oriented mindset, preparedness for the transition, translatable skills from being a student-athlete and lastly the perspective of their own identity and purpose. The impact of an individual's ability to shift their perspective to retrospectively appreciate the experience while translating it as a part of their overall life journey is discussed as a protective factor for positive transition outcomes. The large majority of collegiate athletes do not continue to play their sport professionally, which makes this target population in high need of continued guidance and positive interventions to aid this difficult transitional period. Therefore, mentorship from previously graduated student-athletes, coaches, or administrative programs are suggested as a tangible positive intervention strategy.

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**INTEGRATING TECHNIQUES TO ENHANCE COACH AND ATHLETE BUY-IN OF MENTAL SKILLS TRAINING WITHIN NCAA ATHLETICS**

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Alexandra M. Rodriguez, CSU Long Beach, USA;  
Jake Lee, CSU Long Beach, USA;  
Dari Watkins, CSU Long Beach, USA;  
Emily Cooper, CSU Long Beach, USA;  
Amanda Clark, CSU Long Beach, USA;  
Courtney Novak, California State University Long Beach, USA;  
Tiffanye Vargas, California State University, Long Beach, USA;  
Leilani Madrigal, Long Beach State University, USA*

Abstract: According to NCAA rules and regulations, coaches must abide by strict time regulations, which may be a barrier for sport psychology consultants conducting consistent team sessions. Coaches are concerned about the time commitment of working with sport psychology consultants and are likely to limit the hours given to mental skills training (Zakrajsek et al., 2013). Based on our experience as novice consultants with

NCAA Division I athletics, a prominent barrier to establishing successful mental skills training is athlete and coach buy-in. Thus, the purpose of this poster presentation is to discuss strategies to promote the athlete and coach buy-in and support. In order to gain athlete and coach buy-in, strategies such as establishing effective communication, fostering trust, and building participation into group and team activities may be useful (Sharp & Hodge, 2013; Sharp, Hodge & Danish, 2015). Interpersonal and communication skills such as honesty, trustworthiness, active listening, an ability to connect with and respect the athlete, and being approachable and likable are essential to the athlete-consultant relationship (Watson, Hilliard, & Way, 2017). We recommend demonstrating different approaches, individualizing consulting styles, and building and maintaining the positive relationship between consultant and client in order to strengthen the “working alliance” and establish effective consulting (Watson, Hilliard, & Way, 2017). Providing avenues using social media, like texting, private group Facebook accounts, and skype sessions, may promote the interest and accessibility for effective communication with athlete and coaches that have busy schedules (Cotterill & Symes, 2014). Incorporating these approaches may be vital in improving coach and athlete buy-in which could lead to more awareness, implementation, and efficiency in mental skills training. From this presentation, consultants will gain practice techniques for overcoming the time obstacles in NCAA athletics and improving athlete and coach buy-in to mental skills training.

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**“LIVE TO RUN, RUN TO LIVE”: HIGH-LEVEL ATHLETES’ PERCEPTIONS OF RUNNING IDENTITY**

*Matthew Bejar, Mount Mercy University, USA;  
Leslee Fisher, University of Tennessee, USA;  
Emily Johnson, USA*

Although the construct of running identity has been explored in both sport psychology (e.g., Busanich, McGannon, & Schinke, 2015) and sport sociology research (e.g., Allen-Collinson & Hockey, 2007), a consensus definition of this term is lacking. In a previous study involving the development of a Running Identity Scale (RIS; Bejar, 2016), RIS scores were found to be moderately related to Athletic Identity Measurement Scale (AIMS) scores. This suggested that running identity is a similar, yet distinct construct from athletic identity. Nonetheless, very few studies have directly explored runners’ perceptions of the term “running identity.” Therefore, the purpose of the current study was to expand on the findings from the aforementioned investigation by qualitatively exploring these participants’ perceptions and experiences of their running identity. Four hundred thirty-two high-level runners (57% Female; 80% White; 96% collegiate) completed three open-ended survey questions as part of a larger study. Using an unstructured interpretive analysis (Côté, Salmela, Baria, & Russell, 1993), researchers constructed five general dimensions: (a) Personal Running Identity, (b) Social Running Identity, (c) Impact of Running on Life, (d) Why You Run, and (e) Different Running Identities. These findings indicated that runners perceived numerous antecedents (e.g., perfectionism, dedication) and consequences of running identity (e.g., character development, sense of community, body image issues) that were unique from other sport identities. Furthermore, participants expressed a wide range of experiences in terms of running identity salience and exclusivity (i.e., ranging from being a well-balanced person on one hand to running being the most important aspect of one’s one’s life on the other). Likewise, while participants

identified commonalities that all runners share, this sample of high-level runners also emphasized distinctions among various subgroups (e.g., athlete, jogger, weekend warrior). Implications for personal well-being and collegiate running culture are discussed.

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### MINDFULNESS IN COLLEGIATE ATHLETICS: A CASE STUDY

*Christina Bastian, University of Denver, USA;*  
*Brian Gearity, University of Denver, USA;*  
*Jessica Bartley, University of Denver, USA;*  
*Ann Leibovitz, University of Denver, USA;*  
*Matthew Shaw, University of Denver, USA*

Mental performance coaches and sport coaches implement mindfulness-based interventions (MBI) with athletes, and research supports its effectiveness (Gardner & Moore, 2012). Yet, the supporting research is primarily based upon ACT based interventions which tend not to consider other perspectives of mindfulness such as Baer et al.'s concept of the five-facets of mindfulness (e.g., observing, describing, acting with awareness, nonjudging and non-reactivity to inner experiences; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). A better understanding of the five-facets could provide researchers with better ways to plan and implement a MBI to develop more targeted interventions and enhance athletic outcomes. A logical first step for this research approach is to determine baseline descriptive data on the five facets of mindfulness. Additionally, researchers have tended not to focus on the multiple contextual demands of collegiate sports, which is highly essential to know when providing effective MBIs. Therefore, this mixed-method case study investigated the design and implementation of mindfulness with athletes from a private, NCAA Division I university in the Rocky Mountain area. Data were collected using the Five-Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) and qualitative semi-structured interviews to better understand the perceived effectiveness, benefits, and barriers to implementing mindfulness in the collegiate setting. Statistical tests from the FFMQ investigated the relationships between the five-facets of mindfulness and athletes' sex, race, completed academic years, and sport played. Qualitative interviews were used to determine the perceived benefits and hindrances of mindfulness. The findings indicated non-significant relationships between five-facet scores and demographic variables. Analyses of interviews showed perceived benefits from participation in MBIs, but also a need to educate coaches on how to integrate mindfulness seamlessly into their practice schedules and how to progress mindful practices. These findings help provide researchers, sport psychology consultants, and sport coaches vital information on implementing MBIs.

## 142

### PATHWAYS FROM MINDFULNESS TO FLOW AND PEAK SPORT PERFORMANCE

*Thomas Minkler, Catholic University of America, USA;*  
*Carol Glass, The Catholic University of America, USA;*  
*Erin Wallace, The Catholic University of America, USA;*  
*John Flynn, The Catholic University of America, USA*

Recent research has examined methods for promoting flow to achieve optimal athletic performance, including mindfulness-based interventions (e.g., Aherne et al., 2011). Kaufman,

Glass, and Pineau (2018) propose a model linking mindfulness training to enhanced athletic performance through pathways that begin with mindful awareness and acceptance and include aspects of relaxation and concentration, emotion regulation, and flow. The present study tested support for this model by examining the relationships between both sport and overall mindfulness and these important aspects of athletes' well-being and sport performance.

As part of an initial assessment prior to beginning mindfulness training, all 30 members of a nationally ranked D-III women's lacrosse team completed self-report measures of flow, anxiety, mindfulness, emotion regulation, as well as overall athletic performance. Participants were mostly Caucasian and ranged in age from 18 to 22 ( $M = 19.59$ ), and had been involved in their sport for an average of 10.22 years.

As predicted, significant Pearson correlations revealed that the greater athletes' levels of mindful awareness (both overall and specific to sport), the less their tendency to experience concentration disruption (sport anxiety) and difficulties regulating emotion. Additionally, each mindfulness scale showed significant positive associations with measures of both dispositional flow and the core experience of being "in the zone." Most notably, self-rated athletic performance was significantly related to sport mindfulness and overall mindful awareness, as well as to sport mindfulness subscales assessing awareness (of disruptive stimuli and associated internal reactions) and the ability to quickly refocus goal-related attention.

Although correlational in nature, these results suggest preliminary support for the proposed model and the use of mindfulness training for athletes as a means to bolster performance. Future studies of mindfulness interventions should further investigate the mediational pathways from mindfulness to peak performance, and include coach ratings as well as objective measures of performance during competition.

## 143

### POWERFUL MEMORIALS AND PERPETUATED MEMORY: A TEAM'S EXPERIENCE OF COPING WITH THE DEATH OF A HEAD COACH

*Matthew Gonzalez, West Virginia University, USA;*  
*Tamar Semerjian, San Jose State University, USA;*  
*Ted Butryn, San Jose State University, USA;*  
*Matthew Masucci, San Jose State University, USA*

Despite the considerable emotional toll that a death may have on an athlete (Kerr, 2007), this event has received surprisingly sparse attention in the literature (Buchko, 2005; Doka, Schwarz, & Schwarz, 1990; Henschen & Heil, 1992; Karofsky, 1990; Vernacchia, Reardon, & Templin, 1997). What little systematic attention that has been paid to death in sport has been grounded largely in the experience of losing a teammate (Anderson, 2010). Diverging from the emphasis of previous research, the present study instead examined the inter- and intrapersonal impact of experiencing the death of a head coach. By way of a gatekeeper, access was gained to several members (four players and one assistant coach) of an NCAA Division 1 team whose head coach passed away in the month preceding the start of their season. Semi-structured interviews were conducted and thematically analyzed. Major emergent themes from the interviews suggested the following: bereavement is an idiosyncratic process unique to each team member which can cause interpersonal strife during a shared tragedy; memorials and tributes play a significant role

in the process of individual and collective bereavement; and members of the team may make an effort to perpetuate the memory of a deceased individual. These empirical results help contribute to the dearth of research that has investigated death in sport. The real-life examples showcased by this study may also help inform the design of service provision by applied sport psychology/mental health professionals within this particular context.

## 144

### **PREPARING STUDENT-ATHLETES FOR GRADUATION: NCAA DIV. I ATHLETES' EXPERIENCES OF ATHLETIC RETIREMENT AND CAREER PLANNING AND MANAGEMENT**

*Stephanie Dinius, Boston University School of Education, USA*

For most collegiate student-athletes, the termination of an athletic career is inevitable and coincides with graduation and transition into the world of work. Many student-athletes are unprepared for the transition and experience psychological and emotional difficulties that may interfere with mental health and wellbeing. This poster will discuss the findings of current literature and best practices for supporting student-athletes, while highlighting existing student development programs. Transition readiness factors and implications will be discussed using data from the literature and from the presenter's current multi-phase research study.

In a meta-synthesis of the extant research, Fuller (2014) identified factors impacting the quality of athletic retirement, including: social identity, in particular the saliency of athletic identity; mode of exit; satisfaction with athletic performance; support systems; and preparation. The last factor, preparation, involves cognitive awareness of impending retirement, social and role diversification, and career planning. Student-athletes with a high-saliency of identification with the athletic role may neglect non-athletic career development and experience a more challenging retirement transition. NCAA Div. I student-athletes face higher time-demands and commitment from their sport, which may result in a higher saliency of athletic identity. The presenter's study explores the retirement and career planning and management experiences of former NCAA Div. I student-athletes. A qualitative study using semi-structured interviews revealed emerging themes including under-utilization of campus career resources, high saliency of athletic identity and the development of a non-sport identity as benefiting the transition. Data analysis explores possible relationships between the quality of athletic transition and career preparation and factors of race, gender, income, sport and season. Long-term implications for this research program include designing a program for collegiate athletes to receive effective education, preparation, and support for the athletic career transition.

## 145

### **PUT ME IN, COACH! DIFFERENCES BETWEEN COACH AND ATHLETE PERCEPTIONS OF SPORT PERFORMANCE**

*John Flynn, The Catholic University of America, USA;  
Erin Wallace, The Catholic University of America, USA;  
Thomas Minkler, Catholic University of America, USA;  
Carol Glass, The Catholic University of America, USA*

As interest in assessment grows within applied sport psychology (Taylor, 2017), measures for intervention research that assess sport performance should be a priority. Along

with self-reports, measures of coach-rated performance are also crucial. Self-rated mental toughness, for example, was significantly higher than ratings made by coaches (Crust, Nesti, & Littlewood, 2010).

The present study explored the relation between coach-rated athletic performance and similar ratings from the athletes themselves. Participants were the head coach and members of a league champion women's team at a D-III university, with 10 freshmen and 20 returning players. Self-rated sport performance was assessed with a scale developed by Wolanin (2004) and extensively revised by Glass et al. (2017). Ratings of sport performance (1-9) on 14 specific dimensions yielded a composite score along with three subscale scores for physical ability, cognitive/emotion regulation, and cohesion. The head coach filled out a similar measure about each of her players.

Paired t-tests showed significant differences between average composite coach ratings ( $M = 7.26$ ) and athletes' self-reports of athletic performance ( $M = 6.78$ ). Similar significant findings were obtained on two of the three subscales, with the head coach rating her players higher than they rated themselves on both physical skills (e.g., strength, endurance, fitness) and cognitive/emotion regulation (e.g., concentration, mental toughness, "short memory"). These differences did not appear to be a function of familiarity with individual athletes, as correlations between coach ratings of how well she knew each athlete and ratings of their performance were significant only for the cohesion subscale. Results suggest that coaches can have more confidence in players' ability than they do. In future research, objective measures of sport performance should be included and compared to both athlete and coach perspectives. Studies could also explore reasons for dissimilar ratings between players and coaches, such as leadership, culture, and/or coaching style.

## 146

### **SPORT PSYCHOLOGY SERVICES AND SLEEP QUALITY IN COLLEGIATE ATHLETICS: THE ROLE OF ATHLETIC TRAINERS?**

*Eva Monsma, University of South Carolina, USA;  
John Rice, University of South Carolina, USA;  
Nader Tannir, University of South Carolina, USA;  
Rachel Burns, University of South Carolina, USA;  
Toni Torres-McGehee, University of South Carolina, USA;  
Robert Neff, Mental Training Inc., USA*

Athletic department support of sport psychology has been increasing yet is met with marked variability in philosophical approach and service providers. On one hand, services follow a remediation or medical intervention approach, whereas a preventative, educational philosophy integrating mental skills training may be underutilized. Sleep quality is one indicator of psychological functioning that should be a benefit of sport psychology but is understudied. This study examines sport psychology accessibility among collegiate athletes in terms of service providers, use of psychological skills and characteristics of sleep quality. Participants were 104 collegiate athletes representing a variety of individual and team sports at NCAA DI, II and III schools who completed the Pittsburg Sleep Quality Inventory (PSQI), background questions about sport psychology services and their use of mental skills. Access to sport psychology services was reported by 52.5% of the athletes. Providers of service were identified as psychiatrists (87%), athletic trainers (80.2%) and mental trainers (24.8%). Athletes reported using mental

practice, relaxation, goal setting and motivation (48%-55%), while concentration and mindfulness were reported by 36.8% and 38.5%, respectively. Interestingly, 42% of athletes with service accessibility reported no formal mental training. The overall prevalence of poor sleep quality (scores  $\geq 5$ ) was 37.8% (95% CI: 27.8-48.6) regardless of service accessibility, gender or division. African American athletes reported higher sleep duration and efficiency PSQI scores than Caucasian athletes. Red-shirted athletes reported significantly poorer sleep quality compared to freshmen, sophomores, juniors and seniors. These findings illustrate the prominence of the medical model approach in collegiate athletics where most athletes identified psychiatrists and athletic trainers as main service providers over mental trainers. It is unlikely the academic background of these professionals adequately prepares them for providing mental skills training, calling for tailoring specialized training opportunities especially for athletic trainers given their proximity and time with athletes.

## 147

### **SUCCESS THROUGH ATHLETICS: A PROGRAM TO ASSIST COLLEGIATE STUDENT-ATHLETES TRANSITION**

*Lauren Golla, Hurley Medical Center, USA;*  
*John Mehm, University of Hartford, Director of Graduate*  
*Institute of Professional Psychology, USA*

Student-athletes form a distinct subculture within the greater college culture (Shulman & Bowen, 2001). During the 2012-13 academic year, there were 463,202 student-athletes; however, less than 2% of all collegiate student-athletes will advance to professional levels (NCAA, 2013 Sept.; NCAA, 2013 Oct.). This leaves the overwhelming majority of student-athletes with the task of transitioning to life beyond athletics, despite significant time, mental and physical effort devoted to fostering an athletic identity.

The NCAA has several systems of support to foster student-athlete well-being; however, there appears to be a lack in recognition of the potential difficulty student-athletes may have in transitioning to life beyond collegiate athletics, as well as a lack in discussion of how to best assist student-athletes in this transition. A recent study surveying student-athletes' experiences conducted by the NCAA reported 49% of male student-athletes and 64% of female student-athletes requested additional programming on preparing for a job after college (NCAA GOALS, 2016).

Seeking to provide a resource in an area that has not been sufficiently addressed, a program is proposed to assist student-athletes transition to life beyond athletics that is readily transferable, generalizable, and provides a comprehensive approach. Utilizing the format of a logic model (Savaya & Waysman, 2005), the program incorporates knowledge of the unique experience of student-athletes, as well as literature on transitions and developmental theory specific to student-athletes, and is intended for implementation within an athletic department over the initial four years of a student-athletes collegiate career. The overarching structure of the four year Success Through Athletics program is as follows: (a) year one, goal development and encouragement of dualistic thinking; (b) year two, skills identification and movement toward multiplistic thinking; (c) year three, values identification and continued development of multiplistic thinking; and (d) year four, self-awareness and movement toward relativistic thinking.

## 148

### **THE INFLUENCE OF COACH LEADERSHIP BEHAVIOR AND AUTHENTICITY ON BURNOUT AMONG COLLEGIATE ATHLETES**

*William Ryan, AFSC, USA;*  
*Brandonn Harris, Georgia Southern University, USA;*  
*Jody Langdon, Georgia Southern University, USA*

The importance of authenticity among coaches is an area in sport psychology research that has not been researched extensively as a contributor to burnout, particularly when related to leadership behavior. However, the influence of authenticity on leadership behavior is important because it can potentially reduce the likelihood of negative sport outcomes among athletes. Thus, the present study examined if coach authenticity and leadership behavior would influence burnout among collegiate athletes.

The sample consisted of 139 student-athletes, and 12 coaches from two different Division I and Division II universities located in the southeast United States. Athletes completed the Athlete Burnout Questionnaire (Raedeke & Smith, 2001) and Leadership Scale for Sport (athlete's perception; Chelladurai & Saleh, 1980); coaches completed the Authenticity Scale (Wood et al., 2008) and Leadership Scale for Sport (coach self-perception; Chelladurai & Saleh, 1980). Discrepancy scores were among coach-athlete dyads were calculated using the difference between the athletes' perception and the coaches' self-perception scores on the LSS. Mediation analyses suggested that greater discrepancies between athletes' perception and their coach's perception of leadership behavior were associated with higher levels of athlete burnout. Coaches' scores that were lower in authentic living and higher in the self-alienation components of the authenticity scale were also associated with increases in athlete burnout.

The benefits of facilitating authenticity in coaches appear to not only be advantageous to athletes, but also to a coach's well-being (Lee et al, 2015). Further, it is known that coach well-being and leadership styles can directly influence athletes (Price & Weiss, 2000). Therefore, coaches who can work towards developing feelings of authenticity and genuineness in their interactions may lead to less burnout among their athletes.

## 149

### **THE INTERSECTION OF SPORT PSYCHOLOGY AND PHYSIOLOGY: THE USE OF HEART RATE MONITORS WITH EFFORT AND WEIGHT MANAGEMENT PRACTICES**

*Vista Beasley, Georgia Southern University, USA*

While providing sport psychology support for collegiate, lightweight rowers, two key discoveries were made: 1) Rowers trained at effort levels higher than those prescribed by the coach and physiological periodization principles. Instead, rowers enacted "give it your all, all the time" sport norms, which appeared to underlie overtraining, burnout, and performance decrements. 2) Rowers engaged in maladaptive practices to meet weight requirements prior to competitions. The purpose of this presentation is to detail methods used by a sport psychology practitioner to address these problems based on self-categorization theory. Self-categorization theory suggests that behaviors by group members can

be explained via attempts to gain status within a group by garnering positive evaluations of important group members (Turner et al., 1987). In sport contexts, group members who are not top performers may obtain status within the group by exerting high levels of effort (Rejeski & Lowe, 1980) and by behaving in other ways deemed socially acceptable by group members (e.g., sit in car for hours together with heater on to lose weight prior to weigh-in; Haslam & Reicher, 2006). During a year-long intervention with a collegiate rower attempting to earn a berth on the Great Britain team, a heart rate monitor was employed to assess rower's adherence to prescribed effort levels. It was determined that the use of the monitor alone was insufficient as it did not address the rower's fear of negative evaluation by group members who perceived rower's relatively low effort level to not be aligned with group norms. The intervention incorporated the principle of upwards hierarchical self-categorization via identification of prototypical group members who adhered to physiological prescriptions and healthy weight-loss practices. Evidence of successful intervention included personal records obtained during end-of-the-season competitions and stabilization of body weight for six-month period.

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### Consulting & Interventions

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**150**

**DEVELOPING A HOLISTIC ATHLETE: A CONSULTANT'S REFLECTIONS ON IMPLEMENTING PETTLEP IMAGERY**

*Tavia Rutherford, University of Sioux Falls, USA;*  
*Jamie Shapiro, University of Denver, USA*

Previous imagery research has focused mainly on how imagery interventions can improve performance or the learning of a motor skill (for a review, see Cumming & Ramsey, 2009; Murphy, Nordin, & Cumming, 2008; Weinberg, 2008). Therefore, it is important to understand whether or not implementing imagery interventions can enhance the athlete as a performer and as a person. The current case study is a neophyte consultant's account of the implementation of a 4-week PETTLEP imagery intervention with club level softball athletes. The athletes in this case study consisted of 13 female softball players who ranged in age from 16 to 18 years old ( $M = 16.92$ ). PETTLEP is an acronym for seven factors (i.e., Physical, Environment, Task, Timing, Learning, Emotion, and Perspective) that practitioners should consider when implementing an imagery intervention (Holmes & Collins, 2001). Imagery involves using the five senses (sight, sound, smell, taste, and touch) to create an experience in the mind. In regards to using the PETTLEP model to guide practice, Wakefield and Smith (2012) recommend coinciding physical practice as much as possible with PETTLEP imagery for best effects. The 4-week intervention that the presenter implemented consisted of psychoeducation and activities centered on teaching the seven factors associated with PETTLEP imagery. This poster presentation may be of interest to other neophyte practitioners looking to implement a short-term intervention to build the holistic development of their clients. The consultant's reflections and lessons learned will be presented. Of high importance, a strong working relationship needs to be built between the athlete and practitioner, and various elements of the PETTLEP model need to be progressively implemented into the program to limit the possibility of overload and to assess which aspects of imagery are most useful for the individual athlete.

**151**

**DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF AN ATHLETE-INFORMED MENTAL SKILLS TRAINING PROGRAM FOR ELITE YOUTH TENNIS PLAYERS**

*Lea-Cathrin Dohme, McGill University, Canada;*  
*Gordon Bloom, McGill University, Canada;*  
*Susan Backhouse, Leeds Beckett University, UK;*  
*David Piggott, Leeds Beckett University, UK*

A plethora of research has attested to the important role of mental skills training (MST) for elite athletic performance. Despite pleas from numerous researchers about the value and importance of MST with youth athletes, the majority of MST research has focused on elite adult athletes. This is unfortunate since well-developed mental skills can enhance young athletes' likelihood of fulfilling their athletic and personal potential. The MST programs that have focused on youth athletes, have commonly been informed by literature rather than athletes' needs. However, to contextualize and enhance the effectiveness of MST programs, calls for the prolonged immersion of practitioners in the context in which education is to take place have been made, yet are scarce in reality (Keegan, 2016). Consequently, a 15-month action research study was conducted that aimed to develop, implement, and evaluate a MST program for youth athletes that was informed by their needs and geared toward their personal interests. This involved the lead researcher spending nine months in the youth sport environment prior to the commencement of the MST program. Data was gathered through observations, field notes, and semi-structured interviews with the athletes' parents and the coach. Following this, a MST program that consisted of interactive workshops was created and delivered to 11 competitive British youth tennis players ( $Mage = 11$ ,  $SD = 2.12$ ) over a two-month period. Finally, the program was evaluated over a four-month period through observations, field notes, athlete-workshop data, and a semi-structured interview with athletes' coach. This presentation will focus on the importance of the nine-month longitudinal pre-intervention phase. More specifically, how this phase allowed the establishment of rapport between the researcher and athletes that subsequently enhanced the meaningfulness and content of the MST program. Practical guidelines for future sport psychology interventions with youth athletes and their coaches are provided.

**152**

**EXPOSURE THERAPY: COULD FACING YOUR FEARS ENHANCE PERFORMANCE?**

*Anastasia Jones, Pacific University, USA;*  
*Bjorn Bergstrom, Pacific University, USA;*  
*Tamara Tasker, Pacific University, USA*

Athletes are asked to perform in stressful and anxiety producing environments to meet the demands of their competition, meaning they need to do well under pressure (Craft, Magyar, Becker, & Feltz, 2003). There has been a large focus in sports psychology on treating anxiety in athletes due to the demands they face that may provoke anxiety and impact athletic performance. Many of the current coping strategies used to address anxiety in athletes focus on reducing elevated levels that occur before or during a competition and are not the typical standard of care for treatment of clinical populations meeting criteria for anxiety. Alternatively, Exposure Therapy is the current standard of care for treatment of anxiety disorders. There has been research



to suggest using exposure therapy can enhance athletic performance when working with athletes whose performance is being impacted by their anxiety (Gustafsson, Lundqvist, & Tod, 2017). Furthermore, researchers have proposed that using exposure to mission rehearsals or internal stimuli in military training populations can help build resiliency and help military personnel cope with psychological and physical demands they face (Whealin, Ruzek, & Vega, 2013). Resiliency training is already being used to help athletes overcome and improve their coping strategies toward adverse situations. The authors of this presentation hypothesize that exposure therapy could be used to enhance athletic performance and build resiliency in athletes. Exposing athletes to perceived fears, stimuli that produce anxiety at subclinical levels, or threats to their ability to compete could help build resiliency and help prepare athletes to respond to the demands of their competition. We hypothesize that if athletes are exposed to fears (e.g., sport-ending injury) and learn to change their response to the fear, this will create a competitive edge. The presentation will propose a theoretical model for enhancing athletic performance through using Exposure Therapy.

### 153

#### IMAGERY, MENTAL TOUGHNESS AND ANXIETY IN INDIVIDUAL AND TEAM SPORTS

*Marcin Krawczyński, Atheneum University in Gdansk, Poland;*  
*Dagmara Budnik-Przybylska, University of Gdańsk, Poland;*  
*Jacek Przybylski, University of Gdańsk, Poland;*  
*Dariusz Nowicki, Counseling and Training Agency Korio in Olsztyn, Poland*

Success in sport is determined by many factors. When looking for determinants, researchers analyse mental toughness, coping with anxiety, the effectiveness of mental training, or in particular imagery training. The aim of this paper is to show the relationships between mental toughness and anxiety as well as imagery and anxiety in mental toughness control within individual and team sports.

The study involved 109 people (56 females and 53 males) aged 14-35 ( $M=21.70$ ,  $SD=5.0$ ), out of which 40 participants came from individual sports backgrounds, and 69 – team sports, at various level of competence. For the purposes of the study Sport Anxiety Scale – SAS was applied (Smith, Smoll and Schutz 1990), adapted into Polish by M. Krawczyński (2004), Mental Toughness in Sport Questionnaire (MTSQ) (Przybylski, 2018) and Imagination in Sport Questionnaire (KWS) (Budnik-Przybylska, 2014). T-test and hierarchical regression analysis were applied to perform comparison analyses of the groups. The findings indicated no difference for the variables in question between individual sport and team sport participants. Mental toughness is connected with pre-start reactions. However, imagination accounts for the total of 16 % ( $R^2= 0.43$ ,  $R = 0.66$ , Corrected  $R = 0.37$ ,  $F = 3.69$ ;  $df=7$ ,  $p=0,001$ ) of the somatic anxiety variance. Regression analyses concerning the contribution of imagination to worrying and concentration disruption did not present statistical significance. Mental toughness and imagination produce different effects on pre-start reactions in individual and team sports.

### 154

#### IMPLEMENTING A BRIEF MINDFULNESS-BASED PROGRAM: TWO CONSULTANTS' EXPERIENCE

*Kirra Little, Third Way Center, USA;*  
*Jonathan Haynes, CSF2, USA;*  
*Jessica Bartley, University of Denver, USA*

The purpose of this case study is to examine two consultants' work with a division two men's collegiate soccer team. Specifically, this study details their work with developing, implementing, and facilitating a brief mindfulness-based training program. The current case study reports the different aspects of the experience, including gaining entry, developing a plan, implementing a plan, and reflecting on the experience as a whole. The intervention program was loosely modeled after other mindfulness-based interventions, including the mindful sport performance enhancement (MSPE) program and the mindfulness meditation training for sport (MMTS) program. This study's program focused on training and enhancing three abilities the authors believe to be central to performance in soccer: attention, awareness, and acceptance. The consultants' effectiveness was evaluated through the use of formalized evaluations – as well as through conversations and observations throughout the season. In addition, the consultants utilized John's model of reflection (1994) to report their personal feelings about the experience.

### 155

#### IMPROV THEATRE AND TEAM SPORTS: TECHNIQUES FOR MENTAL SKILLS TRAINING AND COHESION

*Hannah Conner, Adler University, USA*

Recent research supports the benefits of using improv theatre philosophy and warm-ups in a wide range of performance environments to amplify mental skills (Yin, Kumta, & Werner, 2015) and increase overall group cohesion (i.e., Pappas & Dohe, 2017; von Euler, 2016; Yin, Kumta, & Werner, 2015). Studies in the past have used improv theatre to prepare business teams for sales, assist therapists with clients diagnosed with anxiety, and even increase medical student's awareness of bedside manner (Pappas & Dohe, 2017; von Euler, 2016; Yin, Kumta, & Werner, 2015).

Warm-ups for improv are implemented before rehearsals and performances and consist of both cognitive and physical engagement to prepare the mind and body for impromptu performances. These warm-up games and activities focus on constructs also recognized in sport such as concentration, relaxation, confidence, and arousal management (Lesyk, 1998; Mack, 2001).

The philosophy of improv theatre is based on two words 'yes, AND...' (Benjamin & Moret, 2017). This framework focuses on members accepting and sharing ideas, mutual support, commitment, and taking risks to improve the performance. This type of mindset builds a positive atmosphere, creates an accepting, safe environment, and teaches individuals to communicate effectively in a way that is appropriate, confident, creative, and approachable (Benjamin & Moret, 2017).

While improv philosophy and warm-up techniques have shown success across a wide range of performance areas, there is a lack between this valuable approach and sport. The purpose of this presentation is to: 1) Provide a background of the literature emphasizing how improv theatre techniques

are beneficial to group settings; 2) Adapt the method of implementing the improv theatre warm-up techniques to improve mental skills in practices and games; 3) Apply the improv theatre philosophy as a backbone for developing team cohesion; 4) Enhance graduate education and creativity by showing individuals how to implement a theoretical framework from a different performance background to sport.

## 156

### INVESTIGATION OF CONFLICT RESOLUTION AND MINDFULNESS TRAINING WITH YOUTH SPORT REFEREES

*Zeljka Vidic, Western Michigan University, USA;*  
*Mark St. Martin, Western Michigan University, USA;*  
*Kate Hlbbard-Gibbons, Western Michigan University, USA;*  
*Richard Oxhandler, Western Michigan University, USA*

The purpose of this AASP Community Outreach Grant-supported project was to create and implement a sustainable mindfulness and conflict resolution program for YMCA youth referees. As indicated by Helsen and Bultynck (2004), referees exhibit high levels of both cognitive and physical stress during high level competition. In addition, there is a lack of research addressing such needs of the referees, and therefore it is important to provide referees with tools and skills that would help them execute their responsibilities more effectively. Mindfulness has been shown to be an effective technique for reducing symptoms of anxiety and depression with the effects lasting well beyond the end of treatment (Vollestad, Silvertsen, & Nielsen, 2011). Also, effective conflict resolution is an important part of referees' job which also has an effect on their health and well-being as well as job longevity (Dell, Rhind, & Gervis, 2013). Youth YMCA referees were trained on mindfulness and conflict resolution techniques over the course of 6 sessions and completed pre- and post-test assessments. The results were analyzed using paired-sample T-test that examined pre- and post-data differences for the Perceived Stress Scale, Brief Resilience Scale, Referee Self-Efficacy Scale, Mindful Awareness Attention Scale, and qualitative reflections. While initially 13 participants took part in the study, only 7 participants completed both pre- and post-tests. While quantitative results revealed minimal, non-significant changes across all the assessments used in this study, qualitative results provided support for the effectiveness of the intervention with the participants reporting a positive effect on their refereeing activity. Although a pilot study, this research provides initial support for the potential implementation of mindfulness and conflict management interventions with referees. Thus, this study adds to the small amount of research on this topic and future investigators are encouraged to further examine this important area.

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### LET'S MEDITATE: EFFECTS OF A MINDFULNESS TRAINING ON AROUSAL CONTROL

*Selen Razon, West Chester University of PA, USA;*  
*Kathleen Pickard, West Chester University, USA;*  
*Donald A. McCown, West Chester University, USA;*  
*Melissa A. Reed, West Chester University, USA*

Arousal control is key to optimal performance (Sammy et al., 2017). Evidence suggests the effectiveness of relaxation and cognitive reappraisal for arousal control (Pizzie & Kraemer, 2018). Limited studies have tested the effectiveness of mindfulness and meditation for decreasing overt symptoms

of arousal (Yacle et al., 2017). The purpose of this study was to test the effects of a mindfulness intervention on resting heart rate (HR), blood pressure (BP) and thought-decentering in college-aged participants. Twenty-eight (17 female and 11 male) participants (Mage= 22.25, SD= 1.76) took part in a mindfulness intervention over the course of six weeks. At the first and last day of the intervention, resting HR, BP, and thought-decentering were measured before and after the meditation practice. Paired sample t tests revealed a significant ( $p = .000$ ) decrease in HR from pre to post meditation on the first day (Mpre-HR= 64.93, SD=10.32; Mpost-HR= 52.96, SD=7.72) and last day (Mpre-HR= 68.57, SD=8.56; Mpost-HR= 63.68, SD = 8.41) of the intervention. Resting systolic and diastolic BP also showed a significant decrease from pre to post meditation on the first day (Mpre-SBP= 118.14, SD=11.18, Mpre-DBP= 71.64, SD= 10.44; Mpost-SBP= 112.00, SD= 11.39, Mpost-DBP= 65.50, SD= 8.36) and last day (Mpre-SBP= 118.14, SD= 11.18, Mpre-DBP= 69.29, SD= 8.68; Mpost-SBP= 110.32, SD= 9.46; Mpost-DBP= 67.43, SD= 7.81) of the intervention. Analyses also indicated a significant increase in thought-decentering from pre to post meditation on the first day (Mpre-decentering= 13.29, SD=3.70; Mpost--decentering= 17.57, SD=4.21) and last day (Mpre-decentering= 16.96, SD=5.01; Mpost-decentering= 20.64, SD=4.30) of the intervention. Mindfulness-based interventions can help facilitate physiological and psychological symptoms of arousal. Consequently, these interventions can help reduce risks factors for performance decrease within high arousal settings. Implications for practitioners for best use of mindfulness techniques to control arousal and improve performance will be discussed.

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### PERFORMANCE SATISFACTION AMONG COLLEGIATE ATHLETES UTILIZING THE MINDFULNESS-ACCEPTANCE-COMMITMENT (MAC) APPROACH TO SPORT PERFORMANCE

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Introduction: The mindfulness-acceptance-commitment (MAC) protocol is a manualized sport psychology intervention aimed at enhancing performance through attention regulation and commitment to value-driven behaviors (Garner & Moore, 2012). Athletes have demonstrated improvements in concentration, experiential acceptance, and performance as a result of the MAC program (Gardner & Moore, 2004; Gross et al., 2015). Performance satisfaction is a relevant outcome measure, as perceptions of one's performance relate to stress appraisals, emotion, and coping. These factors play a significant role in performance and are addressed by MAC interventions (Nicholls et al., 2012). The current study evaluates performance satisfaction across the MAC protocol. Participants: Participants will include collegiate athletes from a variety of sports. All participants included in the sample are undergoing the 7-session MAC protocol through sport psychology services. The study is currently in the data collection phase and will include approximately 30 student-athletes. Data collection will stop following the conclusion of the spring semester in May 2018. Methods: Athletes completing the MAC protocol are asked to rate their satisfaction with athletic performance in 5 areas (e.g., skill, goal achievement) following each MAC module. Each item

is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Lower scores are reflective of greater satisfaction with performance. Results: Preliminary findings ( $n = 13$ ) reveal statistically significant differences in mean total performance satisfaction ratings between sessions 1 ( $M = 14.23$ ) and 3 ( $M = 12.15$ ), [ $F(2,11) = 10.14$ ,  $p = .003$ ]. It is hypothesized that performance satisfaction will increase between session 1 and 7 of MAC. Discussion: Preliminary data suggest performance satisfaction increases during the first three modules of MAC. Data on session-by-session monitoring of performance satisfaction may aid in identification of specific modules athletes find helpful, as well as add to the body of evidence supporting the MAC program.

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### RELATIONSHIP BETWEEN AFFECTS, HEART RATE, AND PERFORMANCE: A HORSEBACK RIDING PROTOCOL

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Horseback riding can be particularly prone to high levels of stress (Heitman, Rabquer, Heitman, Streu, & Anderson, 2018). Limited studies have looked into the psychophysiology of riders in horseback riding (Williams & Tabor, 2017). The purpose of this study was to investigate the relationship between the psychological and physiological symptoms of stress during a horseback riding protocol. Ten female participants ( $M_{age} = 43.8 + 15.4$ ) took part in this study. At the onset of the study, participants'  $VO_{2max}$  was estimated. Then, participants completed the State-Trait Anxiety Inventory questionnaire (STAI), Positive and Negative Affects Scale (PANAS), and Feeling Scale (FS). Once the participants mounted and rode a horse their HR was recorded throughout a 30-minute riding protocol. Subsequently, HR was recorded again while participants completed a modified dressage performance test. Upon dismounting, participants filled out the PANAS and FS for a second and last time. Findings indicated that positive feelings were inversely correlated with HR during the dressage performance, ( $r = -0.623$ ,  $p < 0.05$ ), and with dressage performance score ( $r = -0.834$ ,  $p < .001$ ). Also, a significant decrease in pre to post negative affect scores was observed in all participants ( $p < 0.05$ ). Dressage score was inversely correlated to  $VO_{2max}$  ( $r = -0.646$ ,  $p < 0.05$ ). Participants with higher positive feelings had a lower HR during the dressage performance test. In addition, participants with a higher dressage score had lower estimated  $VO_{2max}$ . These results suggest that positive affects may impact performance HR, regardless of one's aerobic fitness levels. Overriding role of affects on performers' physiology and performance outcomes will be discussed within an array of competitive settings. Implications for practitioners to promote positive affects for improved performance will be offered.

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### SPORT PSYCHOLOGY CONSULTANTS IN HIGH SCHOOL SPORT: DO THEY PROMOTE LIFE SKILLS DEVELOPMENT?

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In addition to sports skills, several researchers indicate that adolescents can also develop life skills that lead to positive development through sport participation (e.g., Holt et al.,

2017). School sport is identified as a highly educational setting that is structured to provide opportunities for coaches to intentionally teach life skills. Along with the coach, the sport psychology consultant (SPC) also works with athletes and recognizes the value of fostering positive youth development (Friesen & Orlick, 2010). Since no study to date has addressed the SPC's work in a school setting, the aim of this study was to analyze the SPC's work on student-athletes' life skills development through their participation in high school sport. This study used a qualitative methodology with a constructivist paradigm (Merriam & Tisdell, 2015). Two semi-structured interviews were held with seven SPCs working in school sport programs. Data analysis was carried out using both inductive and deductive approaches and was based on Revised Sport Psychology Service Delivery heuristic (Poczwardowski & Sherman, 2011). First, the results revealed that all SPCs have a holistic philosophy and care about student-athletes' positive development. Second, SPCs mentioned incorporating some life skills development and transfer strategies in their interventions (e.g., workshops, specific discussions). Third, differences have been observed in the SPCs' approach in response to the challenges associated with life skills' teaching. For example, SPCs with training in physical education expressed a lack of tools and resources to teach and to facilitate the transfer of life skills outside of the sport setting. In conclusion, despite the reported challenges, SPCs teach life skills to the best of their knowledge but report the need for better training for it to be more effective. To facilitate the life skills' integration in their intervention, practical recommendations for SPCs are suggested.

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### SPORT PSYCHOLOGY IN A VIRTUAL WORLD: CONSIDERATIONS FOR PRACTITIONERS WORKING IN ESPORTS

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Recent technological advances have steadily led to the increased popularity of video games. With computers more readily accessible, video games have become more popular than ever (Murphy, 2009). As the player-base increases for video games, so have competitive opportunities for participants through these online-based platforms, and subsequently, the opportunities for mental skills service provision in this area (Himmelstein, Liu, & Shapiro, 2017; Lee & Schoenstedt, 2011; Taylor 2012). Recent research in this performance domain revealed that competitive esports athletes have identified a number of mental skills they utilize and seek to improve as a part of their training including (a) goal-setting, (b) imagery, (c) anxiety management, (d) motivation, and (e) communication (Himmelstein et al., 2017). With esports athletes recognizing the importance of mental skills in online gaming performances, new and unique possibilities for certified mental performance consultants (CMPCs) are also likely to continue to emerge as an opportunity for applied practice. However, given the performance demands these competitors encounter, coupled with the technological facets associated with this unique performance environment, it is important that practitioners have a good understanding of esports and how mental skills training can be adapted and appropriately incorporated for applied practice. Thus, the present paper aims to provide sport psychology practitioners with information regarding esports as a viable and important arena of performance for which mental skills training could

be integrated and delivered effectively. Additionally, the challenges and benefits associated with consultation in esports will be highlighted. Finally, information that targets specific ethical considerations and best practice suggestions for practitioners interested in conducting applied work in this area will be outlined and discussed.

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**TEAM BASED PROBLEM-SOLVING: THE USE OF CONSULTANCY TEAMS IN SPORT PSYCHOLOGY**

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The traditional consultancy process in sport psychology settings tends to be a one-to-one engagement between practitioner and client. However, in other therapeutic contexts, the concept and application of a 'consultancy team' has been successfully used for many years (e.g., Weakland, Fisch, Watzlawick, & Bodin, 1974). This practice requires one practitioner (i.e., the primary practitioner) to conduct the session with a client, while one or more practitioners (i.e., the observation team) observe the session. The role of the observation team is to allow the primary practitioner maximum involvement with the client, while simultaneously assisting them to solve the presenting problem. In this poster, we present the theoretical foundations and historical application of consultancy team models and outline our experience of using a consultancy team model in an applied sport psychology setting at the English Institute of Sport (EIS). In doing so, we aim to provide a reflective account of a consultancy team working in practice. These reflections include: (a) a brief history of consultancy teams and summary of the consultancy team models used in non-sport psychology settings; (b) an overview of how the EIS sport psychologists have applied a consultancy team approach in elite sport settings when solving problems; and (c) the potential benefits of team based problem solving approaches for some presenting issues faced by applied sport psychology practitioners. Given the fact that there are increasing teams of sport psychologists operating within National sporting organizations or university establishments (cf. Cogan, Flowers, Haberl, McCann, & Borlabi, 2012; Henriksen, Diment, & Hansen, 2011), a number of recommendations for using a consultancy teams when solving clients' problems are provided.

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**THE IMPACT OF NEUROFEEDBACK ON DARTS PERFORMANCE**

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Neurofeedback is employed to teach individuals to modify their own neural activity. In typical neurofeedback protocols EEG is continuously measured and communicated in a tight loop to allow, over time, the ability to understand how mental state correlates with neural signal (Vernon, 2005). Original support for this type of intervention stems from early research with archery athletes that demonstrated improvements in performance, confidence and concentration through feedback of EEG signals (Landers et al., 1991). More recent studies have shown a correlation between successful aiming

task performance and lower frequency brain activity (Kao, Huang, & Hung, 2014; Landers et al., 1991; Rostami, Sadeghi, Karami, Abadi, & Salamati, 2012). The impact of training these frequencies on performance is emerging as interest increases and technology progresses. While initial research applied generic approaches to neurofeedback training, research is emerging that encourages individualised neurofeedback training protocols based on EEG response data (e.g., Sherlin, Larson and Sherlin, 2013).

With or without research, athletes and sports have shown interest in neurofeedback particularly with the emergence of mobile and 'off the shelf' equipment. This study tested a current popular, commercially available, neurofeedback technology (Versus) and its individualised protocols to measure their effect on improvement in the performance of a general motor task. Participants completed the State Trait Anxiety Inventory (STAI), Pittsburgh Sleep Quality Index (PSQI), Versus Neuropsychological Performance Assessment (NPA), and darts performance pre and post intervention with 2 retention measures. The results of the experimental group, control and sham (placebo) are compared and discussed. Results are discussed with respect to informing the use of this type of technology for practitioners in the future.

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**TIPS FOR HELPING COLLEGIATE CLUB SPORT ATHLETES BALANCE STUDENT-ATHLETE DEMANDS**

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Kia Nua, California State University, Long Beach, USA;  
Casey Chow, California State University, Long Beach, USA;  
Juan Sigala, California State University, Long Beach, USA;  
Tiffanye Vargas, California State University, Long Beach, USA;  
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Approximately 2,000,000 students that are attending colleges across the United States participate in club sports (DiPaolo, 2017). The collegiate club sport environment caters to a host of unique challenges that are not typically experienced in varsity sports. Practices are often limited to twice a week and attendance is not strictly enforced. Club sport athletes may find it difficult to obtain resources to cope with balancing athletic and academic demands in comparison to seasonal, elite athletes where strategies are frequently researched and outlined (Aquilina, 2013; Macquet & Skalić, 2015). These unique challenges indicate that club sport athletes should be provided skills that reflect the needs of their population. Based off of our supervised interactions with collegiate club sports, we believe incorporating time management interventions could serve as a resource for club sport athletes. Time management has been shown to reduce anxiety, academic stress, low work satisfaction, and poor performance outcomes among college students (Misra & McKean, 2000). We recommend integrating exercises that illustrate successful time management behavior such as planning, prioritizing, monitoring activities, goal setting, and time assessment (Hafner & Stock, 2010). Previous research has suggested conducting time management training by means of a manual or seminar to change how time is spent on certain activities (MaCan, Shahnai, Dipboye, & Phillips, 1990). Goal setting, prioritizing, strategy development, and cognitive restructuring (to combat unexpected interruption or additional tasks) exercises have been used to elicit positive time management behaviors (Hafner & Stock, 2010).

This increase in time awareness could be the initial step in assisting club sport athletes balance their academic and athletic demands, which may lead to an increase in other positive sport outcomes (i.e., practice attendance).

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### Diversity & Culture

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**“AN ODD PROCESS”: CLASSIFICATION AND ATHLETE SELF-CONCEPTS IN PARALYMPIC SPORT**

*Margaret Smith, University of Alabama, USA*

It is well documented that psychological skills training for athletes in Paralympic & adapted sports and for athletes in Olympic & able-bodied sport are processes “more similar than different” (Dieffenbach and Statler 2012). But classification is one aspect of Paralympic and adapted sport that has no analogue in able-bodied sport. Classification is an experience that powerfully shapes athletes’ identities in that it in large part determines who their competitors are, which teammates they share playing time with, what roles they serve in competition, and what coaches and teammates expect of them. And so in many ways, classification shapes what athletes expect of themselves, and it plays an important role in the formation of adapted athletes’ self-concepts.

This qualitative study involves in-depth interviews and observations with 12 Paralympic and Paralympic-hopeful athletes in four sports. It explores how these athletes make meaning of their classification and how classification shapes their understanding of their athletic performances. Because prior research indicates that participants in adapted sport report feeling their athletic identities are not publicly perceived or understood to the extent that athletes themselves feel them (Martin and Shapiro 2010), findings here may be useful in deepening understanding of classification and how it shapes athletes’ experiences and self-concepts. These data may prove useful for consultants who seek to work with Paralympic sport, as the experiences the athletes in this study share provide a starting point for discussing classification and what it means to athletes themselves, and can support consultants in building interventions that foster full and mindful presence in tasks at hand and acceptance of uncontrollables, including playing time, competitors’ abilities, and others’ expectations.

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**COLLEGIATE STUDENT-ATHLETE PERCEPTIONS ABOUT RACE, DIVERSITY & SOCIAL JUSTICE**

*Andrew Mac Intosh, RISE, USA;*  
*Eric Martin, Boise State University, USA*

Race, diversity and equity have been issues that the United States has grappled with for many years. These issues have received renewed as professional athletes have increasingly used their platforms to raise awareness about injustice. Despite the increased activism by professional athletes, amateur athletics has received less attention even though millions of athletes participate annually at these levels. Little is known about how these broader discussions about race, diversity and athlete activism manifest in the minds of younger athletes. Accordingly, purpose of this study was to assess collegiate athletes’ perceptions about race-related social justice actions and initiatives. Specifically, the study

examined athlete’s perceptions of the national climate as well as their own campus and team climates in regards to issues of race and diversity and surveyed their perceptions of support to engage in such work.

The data showed there was an overwhelming desire from student athletes to become involved in social justice work (81%). Additionally, over 92% of student-athletes believe that racism is still a concern in the U.S. and 68% of them believe it is a concern on their campus. These broader views are not surprising as 69% of athletes said that they personally knew someone who had faced racial discrimination and 54% of them said that they were aware of racist incidents that had taken place on their own campus.

Given the overwhelming prevalence of racial discrimination in the lives of student-athletes it is natural that colleges and their staff need to begin establishing greater dialogue and strategies to support those who have been discriminated against and are aware of racist incidents. Further, training and support also needs to be put in place for those athletes who may want to become engaged in social justice work. These implications and strategies to support athletes will be discussed.

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**EXAMINING THE RELATIONSHIP BETWEEN GRATITUDE, SPIRITUAL AND RELIGIOUS IDENTIFICATION AMONG COLLEGIATE ATHLETES**

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*Aaron D’Addario, USA;*  
*Matteo Luzzi, Florida State University, USA;*  
*Stinne Soendergaard, Florida State University, USA;*  
*Y. Joel Wong, Indiana University Bloomington, USA*

Recently, sport psychology literature has focused on a holistic approach to the athlete performer, advocating for an integration of the physical, psychological, social, emotional, and cultural aspects of the individual. However, the spiritual realm tends to be neglected in sport psychology research (Nesti, 2007) even despite the established relationship between spirituality, mental health, and well-being (Sarkar, Hill, & Parker, 2014). A greater understanding of the spiritual dimension of an athlete’s identity may provide insight into important factors such as where the athlete derives meaning, core values and belief systems, and mechanisms for coping with adversity. Religion and spirituality have been repeatedly correlated with gratitude (Emmons & Kneezel, 2005) and researchers have found that spiritual and/or religious individuals report higher levels of gratitude (McCullough et al., 2002). Since gratitude has been associated with athlete well-being (Chen, 2013; Gabana et al., 2017), investigating factors which may predispose an athlete to be grateful (e.g., spiritual identification, religious practice) can inform the body of practical and theoretical knowledge in sport psychology. The purpose of the current study was to investigate the relationship between athletes’ levels of dispositional gratitude and their spiritual and religious identification among 331 NCAA Division I collegiate athletes. Results from a one-way ANOVA demonstrated that non-spiritual, spiritual, and religious groups differed significantly in their level of gratitude,  $F(2,112.48) = 7.82, p = .001$ . Games-Howell post-hoc tests showed significant differences in gratitude between religious and non-spiritual athletes ( $p = .009$ ) and between religious and spiritual athletes ( $p = .01$ ). No difference was found in gratitude between non-spiritual and spiritual athletes ( $p = .45$ ). Practical implications and possible performance

interventions will be provided to increase the understanding of how practitioners can incorporate spirituality into sport psychology counseling and consultation when appropriate. Finally, caveats, considerations, and recommendations for future research will be provided.

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**FROM A POWER CULTURE TO AN EMPOWERED CULTURE: MENTAL SKILLS TRAINING FOR GYMNASTICS COMMUNITIES**

*Julie Hayden, Empower to Perform, USA*

Given the recent litany of sexual abuse allegations, there is a salient need to comprehend occurrences in the athletic realm. In particular, the sport of gymnastics has been recently highlighted as a culture that promotes an authoritarian style of coaching that can precipitate many types of abuse (Barker-Ruchti, 2008; Barker-Ruchti & Tinning, 2010; Evans, Alesia, & Kwiatkowski, 2016; Gervis & Dunn, 2004; Jacobs, Smits, & Knoppers, 2017; Pinheiro, Pimenta, Resende, & Malcolm, 2014). Current gymnastics culture presents an environment that could benefit from a mental skills training model that seeks to educate, empower, and advocate for all members of the community. This model would examine differing forms of abuse and how these abuses can manifest in the culture of gymnastics and additionally provides education to the community through a mental skills training framework. Previous models have utilized a framework that focused on the coach role (Cote, Salmela, & Russell, 1995), stress management (Kolt, Hume, Smith, & Williams, 2004), goal setting (Pierce & Burton, 1998), and formulating a psychological support program (Hardy & Parfitt, 1994). While these concepts have been shown to provide benefit, the implementation of a model that addresses the exigent needs of the gymnastics community could provide additional benefits. This model comprises a nine-week workshop that equips parents, coaches, and athletes with psychological skills that will allow for the identification of abuse, the ability to effectively communicate physical and emotional needs, and presents opportunities to build resiliency and develop coping skills to manage the inevitable stressors that accompany gymnastics training. Additionally, appropriate guidelines for reporting abuse will be disseminated. Empowering the triad of athlete, coach, and parent could initiate the tides of change toward a more supportive, motivational climate for the sport of gymnastics as well as provide guidance that could serve additional populations confronted with similar challenges.

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**Elite/Pro Sport**

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**A PSYCHOLOGICAL PREPARATION PROGRAM FOR THE FIVE-TIME GOLD MEDAL WINNING JAPANESE SOCCER TEAMS AT THE UNIVERSIADE GAMES FROM 1995 TO 2017**

*Junichi Miyazaki, Japan; Yoichi Kozuma, Tokai University, Japan*

This presentation covers the psychological preparation program designed for the national Japanese student-athlete soccer teams competing at the Universiade Games, also known as the World University Olympiad Games or World Student Games from 1995 to 2017. The Japanese national student-athlete men's soccer team won the gold medal at the Universiade Games in 1995, 2001, 2003, 2005, and 2017. The national team first applied psychological skill training to their

regular training program in 1995 when they won their first gold medal. Over the subsequent years until 2017; however, sport psychological preparation programs were not always available to the teams. Various sport science projects involving groups of sport scientists were sponsored to support the national teams; however, it was observed that only during the winning gold medal years that a mental coach was part of the sport scientist groupings. The mental coaches' goals were to work mainly with relaxation and psyching up programs by targeting visualization, focusing, refocusing, positive thinking, self-confidence, and mental preparation for the games. For quantitative analysis, pretest and posttest data from the Diagnostic Inventory of Psychological Competitive Ability for Athletes (DIPCA 3), a Japanese psychological inventory test used for mental skills and mental toughness evaluations in athletes (Tokunaga, 2001) were collected and analyzed. Only during the gold medal winning years were significant differences found in the improvement of the overall 18 DIPCA 3 factors that were measured and evaluated. As a result, the study indicates a strong correlation between the years that the national team won the gold medals and the application of a mental preparation program. In addition, the study also found that psychological skills training, team management skills, and psychological preparation for competition are highly effective when included as integral components of the soccer teams' overall mental training program.

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**A REVIEW OF MENTAL TOUGHNESS IN THE SPORT SETTING: PROPOSAL OF A NEW MODEL INTEGRATING SELF-CONTROL, SELF-EFFICACY, GOALS AND STRESSORS**

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Frédéric Guay, Université Laval, Canada;  
Christiane Trottier, Université Laval, Canada*

Mental toughness (MT) has gained considerable attention in the sport setting as an important factor for achieving goals, in the presence of varying degrees of pressure, adversity or obstacles (Gucciardi et al., 2015; Hardy et al., 2014). Despite growing interest towards MT, it seems that no clear consensus has been reached regarding its conceptualization (Gucciardi, 2016). Using a narrative review, we searched multiple databases (i.e., Google Scholar, SPORTDiscus, PsycNET, Web of Science) to analyze this literature, extract the main results and provide a critical examination of these findings. We selected empirical studies that have: (a) been through a peer-review process excluding dissertations, (b) been published in English between 2002 and 2015, and (c) explored the conceptualization of MT in sport. The findings suggest that conceptual issues related to MT's construct clarity remain unresolved. Based on this review, we offer a new perspective of MT. We posit that MT combines four psychological theories, such as self-control (Baumesiter & Vohs, 2017), self-efficacy (Bandura, 2007), goal setting (Locke & Latham, 2002), and stressors (Sarkard & Fletcher, 2014). We define MT as a limited resource that deploys itself when an individual feels efficacious towards an activity. This psychological resource allows to regulate cognitive, emotional, and behavioral efforts to achieve difficult and specific goals when confronted with a stressor that puts them at risk. Taken together, we propose a construct definition that precisely captures MT key components and explains how MT influences athletes' performance in challenging situations. This review provides a foundation for further research on MT in sport and leads to practical implications for sport psychology consultants.

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**BENEFITS OF USING THE KIHAP FOR DEVELOPING GRIT IN OLYMPIC TAEKWONDO SENIOR AND YOUTH ATHLETES**

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*Luciana Angiolillo, Universidad de La Plata, Argentina*

Simultaneous training sessions between Olympic athletes and Youth Olympic athletes, male and female, creates a situation of imitation, confidence and coping in Taekwondo in the Argentine National Training Center, CENARD. The Functional Equivalence Model (Holmes & Collins, 2001) proposes that imagery should mirror the actual performance environment as much as possible. Active imagery or imaging with the sporting environment (different from passive or traditional imagery) includes “emotional word sets” such as the use of Kihap or shouting with each motor expression or kick.

In the reconceptualized model of sport confidence (Vealey et al., 1998) identified the sources of confidence that were specifically salient to athletes. Some of these sources included: mastery (i.e., mastering or improving personal skills), demonstration of ability (i.e., exhibiting skills or demonstrating superiority to opposition), physical/mental preparation (i.e., optimal physical and mental preparation), social support (i.e., positive feedback and encouragement from coaches, team-mates, and/or friends), and vicarious experience (i.e., seeing someone else perform successfully). Kate Hays et al. (2007) further referred, “a testament to the multi-dimensional nature of sport confidence, six types of sport confidence was also identified: skill execution, achievement, physical factors, psychological factors, superiority to opposition, and tactical awareness”. The purpose of this qualitative study was to investigate the use of the Kihap in this context with 16 athletes. The majority of these evaluated athletes referred that they use the Kihap all the time in training and in competition for various reasons: to scare opponents, to express confidence, to generate more physical power and to focus. Qualitative methods require that the researcher balance the use of what is already known with discovery from the data (Morse & Richards, 2002). Recommendations for integrating the Kihap in training in other sports such as tennis and javelin throwing will also be discussed.

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**EVALUATING THE EFFECTIVENESS OF A LIFE SKILLS PROGRAM WITH ELITE ATHLETES**

*Adam Miles, University of Otago, New Zealand;*  
*Ken Hodge, University of Otago, New Zealand*

Researchers have acknowledged the need for elite athletes to pursue both performance excellence and personal excellence during their careers in elite sport (Miller & Kerr, 2002). Central to the pursuit of personal excellence is a focus on developing skills that are of life long value and transferrable across life domains. Life skills programs teach skills such as goal setting and emotional control that can be developed in sport and transferred for use in non-sport settings (Gould & Carson, 2008). To date, few researchers have evaluated the effectiveness of life skills programs with elite athletes (see Lavallee, 2005 for an exception). The purpose of this study was to evaluate the effectiveness of a life skills program for promoting performance and personal excellence in a group

of elite cricketers. The performance and personal excellence program (PPEP) was delivered to seven male elite cricketers (Mage = 22.00yrs; Melite experience = 2.14yrs). These cricketers participated in six group workshops and completed nine online take-home tasks over a 12-week period. We used a series of ABA single-case designs, with minimal meaningful harm and benefit criteria and Standard Mean Difference (SMDall) effect sizes, to evaluate the PPEP effects on life skills acquisition (adapted life skills instrument, Jones, Lavallee, & Tod, 2011) and basic psychological need satisfaction (Balanced Measure of Psychological Needs scale; Sheldon & Hilpert, 2012). SMDall effect sizes demonstrated that the program had a positive effect on life skills acquisition for five of the seven participants. Data from social validation interviews revealed that the PPEP was an enjoyable and valuable experience, with the taught life skills being utilized in both sport and non-sport contexts. Adopting a scientist-practitioner approach, practical recommendations are offered for developing and evaluating life skills programs with elite athletes.

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**EVALUATION OF TRAIT PERSONALITY AMONG AMATEUR ATHLETES TO PREDICT FUTURE SUCCESS IN PROFESSIONAL BASEBALL**

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*Conrad Woolsey, University of Western States, USA;*  
*George MacDonald, University of South Florida, USA;*  
*Daniel Weigand, University of Western States, USA*

This study examined Cattell's 16 Personality Factor Questionnaire (16PF) assessments among amateur baseball players (N = 811) from high school and university programs between 2010 and 2014 (Institute for Personality and Ability Testing, 2009). These players were deemed potential draft picks for Major League Baseball's (MLB) amateur draft based on the talent evaluations by an MLB organization's amateur scouting department. Mean scores were computed for the 16 sub-scales of the 16PF. Logistic regression analyses were conducted on the players drafted who signed professional contracts during this time frame. Dependent variables of successful or unsuccessful in reaching and playing in the major leagues were used to group participants. Talent was controlled for based on the draft round (1 through 21+) the player was selected and age (high school or university draft pick). Results revealed that factors within the 16PF could be used as statistically significant predictors of the odds of future success or being unsuccessful in reaching the major league level when controlling for age and talent. Among all university and high school drafted athletes (N = 811), results showed that dominance was statistically significant and associated with a 16% increased likelihood (i.e., odds = 1:1.159;  $X^2 = 0.03$ ) of reaching the major league level. Additionally, among university drafted athletes (n = 527), sensitivity was statistically significant and associated with a 19% decreased likelihood (i.e., odds = 1:0.815;  $X^2 = 0.01$ ) of reaching the major league level. Among this sample of high school drafted athletes (n = 282), results of the 16PF analysis were not found to be statistically significant predictors of reaching the major league level. Findings were used to create a condensed model to help improve the existing player evaluation process.

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**POSTER WITHDRAWN**

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**IN BROTHERHOOD WE TRUST:  
A SOCIAL MEDIA CASE STUDY**

*Jessica Kirby, University of Northern Colorado, USA;  
Joshua Garland, Santa Fe Institute, USA;  
Megan Babkes Stellino, University of Northern Colorado, USA;  
Robert Brustad, University of Northern Colorado, USA*

Media shapes the way we interact with, perceive, value, and process sport; including the games, the athletes and the corresponding team and athlete narratives. Social media, in particular, has powerfully amplified access to the media driven re-presentation of sport. The National Football League (NFL) is a powerful economic entity, and while research on fan behavior abounds, there is little to no research on player in-group dynamics or team culture inside these professional teams. Success themes in sport media showcase rivalries, superstar athletes and highlight reels, while neglecting coverage of supportive and cooperative teammates, personal growth, empathy or equality (Coakley, 2015). This inflated bias toward individual natural talent leaves out the invaluable components of success through hard work and perseverance (Duckworth, 2016). This social media case study explored how the rostered players and head coach of the 2017 Atlanta Falcons, as well as the official team account, represented #TheBrotherhood on Twitter. As two of the researchers are siblings of a current player, valuable, and unique, 'insider perspective' to the positive player development and inclusivity of Atlanta team culture was afforded to this exploration. Content analysis of tweets from the first 6 weeks of the season resulted in themes of family and team grit, as well as illuminated commonly used words and hashtags tweeted within these themes to inform an expanded analysis of the entire season. Further analysis confirmed these themes, offering the Falcons Brotherhood as a positive example of a united team culture supportive of players through wins and losses and fostering committed hard work; players working hard for one another and the extended Atlanta family, not just for oneself. Future research and practice should consider the case of the brotherhood to foster strong and successful in-group dynamics in professional sport teams.

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**ORGANIZATIONAL CULTURE INTERVENTIONS IN ELITE  
SPORT: SCIENCE TO PRACTICE**

*Christopher Wagstaff, University of Portsmouth, UK;  
Suzannah Burton-Wyllie, University of Portsmouth, UK*

Over the last 12 months a light has been shone on inappropriate and unacceptable behaviors in some organizations within the UK's elite sport system, with athletes accusing their organizations of fostering unhealthy cultural and climatic environments. For instance, Great Britain (GB) Bobsleigh have been accused of bullying and racism; GB Gymnastics of promoting a culture of fear, resulting in top gymnasts refusing to sign new contracts; GB Cycling have been accused of gender and sexual harassment; while the England Women's manager and the Football Association (FA) featured extensively in media reports regarding racism and bullying and were ordered to appear before a government inquiry. These concerning and widespread allegations recently led to a widespread 'cultural health check' of all national sport organizations, with compliance to and the findings of this process having funding implications. Given sport psychology scientist-practitioners have increasingly noted the importance of examining culture in elite sport (e.g., Cruickshank & Collins, 2012; Fletcher &

Wagstaff, 2009), and applied practitioners are increasingly required to deal with demands associated with organizational culture (e.g., Larsen, 2016; McCalla & Fitzpatrick, 2016), the science-practice discussion on the culture of sport organizations remarkably remains in its infancy. Nevertheless, to better meet the current applied requirements of our professional field, it is timely to reflect on the existing conceptual and applied knowledge within the field of sport psychology to best advise on organizational culture change and development interventions. Hence, in this presentation we will reflect on a combination of the most recent conceptual and measurement advances and anecdotal practitioner accounts with the specific goal of enhancing practitioner knowledge and competency regarding organizational culture consultancy in elite sport.

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**PSYCHOLOGICAL COMPETITIVE ABILITIES OF JAPANESE  
RIO DE JANEIRO SUMMER OLYMPIC ATHLETES**

*Yasuhisa Tachiya, Japan Institute of Sports Sciences, Japan;  
Kiso Murakami, Tokyo University of Science, Japan*

The purpose of this study was to investigate the psychological competitive abilities of Japanese Rio de Janeiro summer Olympic athletes by the Scales of Psychological Competitive Ability for Elite Athletes. The background of this questionnaire was that top athletes have extraordinary psychological characteristics (Tachiya et al., 2015). Tachiya et al. (2015) developed the inventory that consists of 40 questions, 10 mental scales: (1) self-control, (2) concentration, (3) imagining, (4) confidence, (5) consistency, (6) self-analysis, (7) objectivity, (8) goal-setting, (9) motivation, and (10) management of everyday life, with the highest total score of 200 (20 each). The questionnaire was completed in 2016 by 339 (male: 174, female: 165) Japanese athletes who participated in the Rio de Janeiro summer Olympic Games. The result of the analysis on the total score was a mean of 152.6±19.52. Mean scores of each 10 mental scales were self-control (14.4±3.70), concentration (14.1±2.90), imagining (15.4±2.89), confidence (15.3±3.11), consistency (15.2±2.89), self-analysis (15.8±2.52), objective approach (14.8±2.67), goal-setting (16.1±2.65), motivation (15.8±3.54), and management of everyday life (15.9±2.92). While the questionnaire was based on the idea that top athletes tend to score high, results were not as high as it was predicted. In addition, the total score of individual sport was significantly higher than team sport (p<.01) and imagining (p<.01), consistency (p<.01), self-analysis (p<.05), and objectivity (p<.05) was significantly higher than team sport. The result indicated that those factors are important for individual sport. Moreover, divided three groups of Olympic ranks 1-3th, 4-8th, and lower than 8th, there was no significant differences in competitive levels. We need to compare with other athletes such as winter Olympic athletes and analyze from various perspectives.

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**THE RELATIONSHIPS AMONG COMPETITIVE TRAIT ANXIETY,  
STRESS AND JINX DEPENDENCE: MULTI-GROUP ANALYSIS  
ACROSS INDIVIDUAL AND TEAM-SPORTS ATHLETES**

*Sungho Kwon, Seoul National University, Korea;  
Yongse Kim, Seoul National University, Korea;  
Changryang Um, Seoul National University, Korea*

The purpose of this study is to analyze the relation among competitive trait anxiety, stress and jinx dependence in the individual-sports athletes' group and team-sports athletes'



group. The study was conducted based on the data of 361 athletes in the various sports events. Among the 361 athletes, there were 167 of individual-sports athletes and 194 of team-sports athletes. Descriptive statistics, correlation analysis and multi-group analysis, carried by SPSS 20.0 and AMOS 21.0 were used as the analysis method. The results of this study was as follows. First, in the individual-sports athletes' group, competitive trait anxiety positively affected on the jinx dependence, but competitive trait anxiety did not affected on the jinx dependence in the team-sports athletes' group. And although not statistically significant, there was a difference in the path coefficient between individual-sports athletes and team-sports athletes' group. Second, In the individual-sports athletes' group, exercise stress affected on the jinx dependence, but it did not affected on the jinx dependence in the team-sports athletes' group. And there was a statistically significant difference in the path coefficient between individual-and team-sports athletes' group.

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#### THE UTILIZATION OF SPORT PSYCHOLOGY CONSULTANTS IN THE NATIONAL HOCKEY LEAGUE

*Bruce Klonsky, The State University of New York at Fredonia, USA;*  
*Alan Kornspan, University of Akron, USA;*  
*Joseph Carbone, West Virginia University, USA;*  
*Jordan Marsh, The State University of New York, USA*

There has been increasing interest in expanding sport psychology employment opportunities, especially in professional sports (e.g., Connole et al., 2014; Mugford et al., 2017). While some investigations have focused on the utilization of sport psychology consultants at the collegiate level (Hayden et al., 2013), fewer studies (e.g., Klonsky et al., 2013, 2015) have dealt with the nature and prevalence of sport psychology services in professional sports. Based upon the percentage of NBA teams (33%) and MLB teams (36%) listing sport psychology consultants in their website media guide directories (Klonsky, 2013, 2015) and the stigma sometimes attached to utilizing sport psychology consultants at the professional and college levels (Hayden et al., 2013; Zakrajsek et al., 2011), an underreporting and underutilization of such services were predicted. Those predictions received solid support. Content analyses of the listing of professionals including sport psychologists and mental skills consultants on NHL.com online website media guides/directories were done. Over 38% of NHL teams provided such listings on their website. Interjudge agreement assessment (82%) in classifying the sport psychology and mental skills consultants was challenging due to lack of uniformity in how they were listed in the website media guides. Google searches on those same professional titles for NHL teams not listing such professionals uncovered additional teams using sport psychology consultants. Phone calls to check on utilization of sport psychology consultants will be made to those NHL teams not listing sport psychology professionals on their website. Long-term trends in the use of sport psychology consultants will be provided with the use of Sporting News Official NHL Guides (1989-2005 when publication ceased). It should also be noted that few NHL hockey teams employed AASP-credentialed or multiple sport psychology consultants. Suggestions for dealing with underreporting and underutilization of sport psychology professionals will be highlighted at the meeting.

### Exercise/Health/Fitness

### 180

#### AUTONOMY SUPPORT FOR SENIOR CITIZENS' MOTIVATION FOR EXERCISE ENGAGEMENT

*Takahiro Sato, Western New Mexico University, USA;*  
*Takehiro Iwatsuki, University of Nevada, Las Vegas, USA;*  
*Adrian Barbosa-Luna, Universidad Autonoma de Nuevo Leon, Mexico*

Autonomy, or being able to make one's own decision, is considered a fundamental psychological need (Deci & Ryan, 2000) and is important factor in psychological well-being and quality of life (Langer & Rodin, 1976). We wanted to examine whether the presence of choice enhances exercise engagement among senior citizens, as high motivation to complete exercise has various positive effects on their quality of life (Rejeski, Brawley, Shumaker, 1996). The purpose of the present study was to examine whether providing participants with choices in exercise protocol could enhance exercise engagement. Twenty senior participants with an average age of 70.00 years (SD = 4.96) participated in either a choice (six females and five males) or control group (five females and four males). All the participants were asked to complete four different exercises (i.e., push-up, leg raise, chair squat, 2-min step). Participants in the choice group were asked to decide the order in which they would like to complete each task. They were then subsequently asked to decide on how many sets and repetitions they would like to complete. Control group participants were simply asked how many sets and repetitions they would like to complete, without given a choice regarding the order of the exercise completion. Results of MONOVA showed that choice and control groups did not differ on the total number of sets and repetitions. Results did not confirm our hypothesis that choice group participants would complete more sets and repetitions, indicating an increase in exercise engagement as one recent study demonstrated among college students (Wulf, Freitas, & Tandy, 2014). While baseline fitness levels or other fundamental psychological needs (e.g., competence) may have an impact on the number of sets and repetitions an individual can complete, more studies aimed towards examining the effect of autonomy support on exercise engagement should be conducted.

### 181

#### COMPETITIVE COLLEGIATE RUNNERS AND SOCIAL PROBLEM SOLVING THINKING: RUN DIFFICULTY, FLOW, AND CHANGES IN FEELING STATES

*Sharon Hamilton, Edinboro University, USA;*  
*Emma Olson, Edinboro University of Pennsylvania, USA;*  
*Theresa Guarriello, Edinboro University of Pennsylvania, USA;*  
*Kimberly Mosher, Edinboro University of Pennsylvania, USA*

The present study examined the social problem solving thoughts, experience of flow, and changes in feeling states of 11 collegiate cross-country runners across two different running contexts- completing an easier and a more difficult training run.

Previously, we developed the Running and Problem Solving Questionnaire (RPSQ), and assessed the extent to which recreational runners report engaging in mental processes associated with social problem solving. The current study extended this work in several ways. Our previous research

focused on recreational runners, asking participants to retrospectively report on their running experiences in general. The current study was conducted with runners on a collegiate team, asking them to report on mental processes related to a specific run they had just completed. Although our previous research examined the relationship between the RPSQ and flow, it did not assess changes in feeling states. The current study assessed both flow and changes in feeling states. Finally, the current study examined the impact of difficulty of the running task on RPSQ scores.

Participants completed the RPSQ (Hamilton, et al., 2017) and the Flow Short Scale (Engeser and Rheinberg, 2008) immediately after completing an easier run, a run for which they were not given a pace time, and immediately after completing a more difficult run, a run for which their coach assigned a pace time. Pre and post run feeling states were assessed using the Feeling Scale (Hardy & Rejeski, 1989). No significant difference was found between RPSQ scores collected after the easier and the more difficult run ( $t(10)=1.08$ ,  $p=.308$ ). However, a significant positive correlation was observed between the RSPQ and flow ( $r(9) = .624$ ,  $p < .05$ ) and the RSPQ and increases in positive feelings ( $r(9) = .779$ ,  $p < .01$ ) for the easier run, with similar significant correlations found for the more difficult run.

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### COMPETITIVENESS IN ACTIVE FANTASY SPORTS

*Jermaine Bean, Rosalind Franklin University of Medicine and Science, USA;*

*Kristin Schneider, Rosalind Franklin University of Medicine and Science, USA;*

*Arlen Moller, Illinois Institute of Technology, USA*

Competition can encourage participation in physical activity (PA). In active video games, where body movement is required for gameplay, competitiveness has been associated with greater enjoyment of the game, energy output, and motivation to play in the future. The present study examined the influence of competitiveness on PA in active fantasy sports, a version of traditional fantasy sports, which incorporates and encourages PA by tying the team owners' PA to the fantasy sports league. We hypothesized that competitiveness would be positively associated with 1) PA goal achievement, 2) checking of one's own PA on a Fitbit device, or Fitbit dashboard 3) checking their PA in comparison to others' via the fantasy sports website, and 4) game enjoyment. Participants ( $N=34$ , 14.7% female,  $M$  Age=34.0 years) completed a competitiveness measure at baseline and then participated in an active fantasy sports league. They wore an activity monitor to track PA (i.e., daily steps) throughout the duration of the league (range: 16-17 weeks) and received weekly step goals. PA goal achievement was calculated weekly by averaging the participant's daily step goal completion percentage. Participants self-reported their checking of steps via the Fitbit and fantasy sports website upon league conclusion. Results from the mixed models analyses indicated higher competitiveness was associated with higher PA goal achievement after controlling for age, gender, and baseline steps  $F(17, 363.66)= 11.25$ ,  $p < .001$ . Competitiveness was not associated with frequency of checking PA on the Fitbit platforms,  $r = .22$ ,  $p = .23$ , the fantasy sports website,  $r = .01$ ,  $p = .97$ , or enjoyment of the fantasy sport intervention,  $r = .22$ ,  $p = .25$ . Null results could be explained, in part, by the study's small sample size, which was only powered to detect a large effect size. Future research should use a larger sample to better understand the relationship between competitiveness and PA.

## 183

### "DO AS I DO", OR "DO AS I SAY"?: ASSOCIATIONS BETWEEN PARENTING STYLE AND CHILD PHYSICAL ACTIVITY AND SEDENTARY BEHAVIORS

*Natasha Bell, University of Minnesota, USA;*

*Jerica Berge, University of Minnesota, USA*

Previous studies have shown that participation in physical activity is associated with several mental health benefits, including managing depressive symptoms and anxiety, and improving mood, self-esteem, and sleep (U.S. Department of Health and Human Services, 2002). This is particularly true for youth, as research suggests that physical activity provides support for adolescent development (Larson, 2000) and can help youth develop a strong self-identity (Eccles, Barber, Stone, & Hunt, 2003). In addition, research indicates that the patterns of physical activity and sedentary behavior established in youth carry forward into young adulthood and beyond (Raitakan et al., 1994; Biddle & Mutrie, 2007). This creates a pressing need to better understand how parents can support physical activity and decrease sedentary behavior in children.

Davison and Birch (2001) examined the role that family plays in forming healthy habits and suggest that the home environment is a powerful influence in forming healthy habits. Many studies have indicated that parent support and modeling of physical activity can increase physical activity in the child (Davison, Cutting, & Birch, 2003). However, there is less research on how specific parenting styles impact child physical activity and sedentary behavior, especially in minority populations.

This study was designed to add to the research on parenting styles, parent modeling, and promotion of physical activity in children within minority populations. The results indicated that children of authoritative parents tend to have the best outcomes and report that they spend less time on the computer and that family members exercise or play sport. Authoritarian parenting tends to be the next best parenting style in relation to the outcomes of physical activity and sedentary behavior. These trends suggest that parenting style does play a role in increasing physical activity and decreasing sedentary behavior. Parenting interventions programs should target both responsiveness and demandingness in parents.

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### E.P.I.K. PROGRAMMING FOR FEMALE ADOLESCENTS WITH CEREBRAL PALSY

*Chelsie Smyth, Midwestern University, Glendale, USA;*

*Angela Breitmeyer, Midwestern University, USA*

Cerebral palsy is a developmental disorder affecting 1 in 323 children (Center for Disease Control [CDC], 2017). Of note, more males than females are affected with the disorder (CDC, 2017). However, given the limited prevalence rate in females, fewer resources seem to be available for them. Furthermore, many children with cerebral palsy are referred to physical therapy to maintain or improve their overall motor functioning (Baquero Sastre & Vasquez, 2017). Despite the number of exercise programs, recreational, and school sports in the United States for children and adolescents (Visek et al., 2015; Dugan, Turman & Torrez, 2015), the exercise psychology literature has yielded no exercise psychology programs to support children with cerebral palsy. Although physical concerns and treatment modalities regarding cerebral palsy

have been documented and analyzed (Visek et al., 2015, Dugan et al., 2015), there is a lack of empirically supported programs available to assist adolescent females with cerebral palsy in participating in exercise and engaging in healthy lifestyle habits (Park, 2016; Wright, Boschen & Jutal, 2005; Yonetsu, Iwata, Surya, Unase & Shimizu, 2015). Therefore, the proposed program, Enhancing Progress Integrating Kinesthetics (EPIK), utilizes a holistic approach that aims to comprehensively address the transition after completion of physical therapy. EPIK's primary evidence-based program components include engaging in exercise (Park, 2016; Wright et al., 2005; Yonetsu et al., 2015); incorporating nutrition (George, Schnieder & Kaiser 2016); practicing healthy lifestyle habits (Pirulli, 2016); understanding burnout (Ekland & DeFreese, 2015; Harris & Watson, 2014; Akhrem & Gazdowska, 2016); as well as maintaining gains post-program completion (Myers & Sweeny, 2004). The purpose of this poster is to introduce and describe an empirically based, integrative, exercise psychology program designed to assist adolescent females with cerebral palsy in the development and maintenance of healthy lifestyle choices as they transition out of physical therapy.

### 185

#### **EXAMINATION OF A RECESS AND PEER-LEADERSHIP INTERVENTION ON EXECUTIVE FUNCTION AND PHYSICAL ACTIVITY IN ELEMENTARY SCHOOL STUDENTS: A RANDOMIZED CONTROLLED TRIAL**

*Megan Babkes Stellino, University of Northern Colorado, USA;*  
*Jessica Ford, University of Wisconsin-Milwaukee, USA;*  
*Jeremy Gorgas, USA;*  
*Lyndsie Koon, University of Illinois Champaign-Urbana, USA;*  
*William Massey, Oregon State University, USA*

Proponents of school-based recess have suggested positive physical, cognitive, and social health outcomes for children. Playworks, a national non-profit organization that provides recess interventions at low-income elementary schools across the United States, also facilitates a peer-leadership program in which students are trained to serve as playground leaders during recess. Those in the peer-leadership program receive 2-hours of play-based leadership training per week and extra recess sessions in which they serve as "junior coaches" for younger children on the playground. The purpose of the current study was to examine the impact of the Playworks peer-leadership program on executive function (i.e., inhibition, cognitive flexibility), social competence, basic psychological need satisfaction (BPNS), and physical activity (PA). Fourth and fifth grade students at two schools were randomly assigned into a Playworks plus peer-leadership training program group (n=25) or a Playworks only group (n=37). Prior to randomization, cognitive inhibition and cognitive flexibility were assessed using the Flanker Inhibitory Control and Attention Test and the Dimensional Change Card Sort Test on the NIH Toolbox iPad app. Additionally, PA data were collected using a FitbitFlex accelerometer; BPNS data were collected through student self-report survey; and social competence data were collected using a teacher reported scale. Data assessors were blinded to condition and completed follow-up testing at the end of the school year. Results suggested a Group X Time interaction for minutes spent in moderate-to-vigorous physical activity in favor of the peer-leadership group (p=.02; eta2=.138). No other interaction effects were observed, however main effects suggesting improvement over time for the entire sample were observed for cognitive flexibility (p=.006; eta2=.118) and steps per day (p<.001; eta2=.596). Implications for the

effects of recess on children's physical, cognitive, and social psychological health will be discussed.

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#### **EXPLORATION OF A SELF-HELP GROUP SETTING TO PROMOTE PHYSICAL ACTIVITY IN INDIVIDUALS DIAGNOSED WITH MULTIPLE SCLEROSIS**

*Kimberly Fasczewski, Appalachian State University, USA;*  
*Katie Campbell, Appalachian State University, USA;*  
*Blair Anderes, Appalachian State University, USA;*  
*Hannah Cook, Appalachian State University, USA*

Multiple Sclerosis (MS) is a chronic degenerative autoimmune disease of the central nervous system. Physical activity (PA) aids in disease management and control; however, individuals with MS represent one of the most physically inactive segments of our population, even amongst other individuals with chronic diseases. Social support has been shown to increase PA behavior in group exercise settings for individuals living with MS. The purpose of this project was to extend the research on group-influenced PA behavior to a regional MS self-help group setting. A nine-month, in-depth, qualitative analysis of a self-help group focused on PA as part of a holistic approach to living with MS, was performed. Analysis included individual interviews, a focus group interview, observational research, and hands-on researcher participation in group PA events. Results indicated that the PA initiative, as part of a focus on healthy living, encouraged group members to remain more physically active. Monthly speakers, group outings, and fundraising events all focused on the theme of health through PA. This theme extended to the formation of a team for an annual Bike MS fundraising event, where almost all group members participated in some manner. The Bike MS event increased PA levels for members who participated, and created a positive group atmosphere and team cohesion for all group members, regardless of involvement type. Group members who were not riding in the fundraiser reported a desire to be physically active in whatever capacity their limitations allowed. All group members felt that the positive, health-based focus of the self-help group, with PA at the center, increased their own PA behavior and positively impacted overall quality of life. Outcomes suggest that socially supported PA initiatives, in the form of a PA-focused self-help group, increase PA participation in individuals diagnosed with MS and positively impact overall quality of life.

### 187

#### **MIRROR MIRROR ON THE WALL: WHO IS THE FITTEST OF ALL? INDIVIDUAL DIFFERENCES IN EXERCISE MODE PREFERENCES**

*Hila Sharon David, Florida State University, USA;*  
*Gershon Tenenbaum, Florida State University, USA*

The present research examines the role of mirrors in the exercise environment. Mirrors allow exercisers to reflect on their body position, providing immediate feedback and permit instant self-analysis which exercisers can use to correct their posture (Lynch, Chalmers, Knutzen, & Martin, 2009). Nevertheless, not all exercisers may benefit from exercising in a mirrored environment. To capture these individual differences, we used a qualitative research to explore in-depth the reasons for peoples' desire to exercise or avoid it in front of a mirror. Semi-structured interviews were conducted with 8 "mirror preferred exercisers" and 8 "mirror avoiding exercisers". Results indicate that the main reason which motivate people to exercise in front

of the mirror is the desire to improve form and perceiving mirror as a “confidence booster”- a theme that was common mainly among people who reported positive body image. The main reason to avoid mirrors during exercise was the will to avoid destructions that derive from the presence of the mirror (e.g., increased self-awareness and self-presentational concerns). Regardless of the exercise mode preference, the feelings that arise from exercising with a mirror can be negative or positive depending on the person’s self-perception. For people who feel confident about their self-appearance, the mirror serves as a confidence booster, while for people who are not satisfied with their look, the mirror can serve as a “self-doubt” booster. The mirror reflects a process of change and serves as a tool to promote motivation to exercise, especially when people are in more advanced stages of their physical fitness. However, in the initial stages of fitness change process, when the desirable physical shape wasn’t yet accomplished, it may be beneficial to avoid practicing in front of the mirror. The findings may aid practitioners in adopting an approach which considers people’s mode preferences in designing exercise programs.

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### Injury/Rehabilitation

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**188**

**ADAPTED PHYSICAL ACTIVITY AND THE CREATION OF COMMUNITY AND WELL-BEING**

*Shannon White, University of Kentucky, USA;*  
*Raegan Geldart, University of Kentucky, USA;*  
*Kaitlyn Conway, University of Kentucky, USA*

Since October 2001, the US Armed Forces has been a vital member of international military campaigns in both Iraq and Afghanistan. In total, approximately 2.7 million American service members have been deployed to Afghanistan and Iraq (Hautzinger, Howell, Scandlyn, Wool, & Zogas, 2015), with 52,599 returning home wounded in action (Defense, 2018). Of those wounded in action, over 3,000 service members returned to the U.S. with severe wounds and illnesses, which included amputations, spinal-cord injuries, burns, and Traumatic Brain Injuries (Tanielian, Jaycox, Adamson, & Metscher, 2008). Although soldiers may be surviving these various experiences, many are left with injuries that prevent them from returning to active duty (Chivers, 2009).

Using the work of Ludwig Guttmann, who recognized sport for both the physiological and psychological benefits that it possessed, Dr. Guttmann incorporated sport activities during the rehabilitation process for paraplegic hospital patients (Brittain & Green, 2012). Since this work began, adapted physical activity has been used in rehabilitation settings, for both veteran and civilian populations, given the positive benefits of sport to serve as both a competitive environment and tool for re-integration. Therefore, researchers are seeking to explore the potential correlation between an individual’s psychological sense of well-being and sense of community (McMillan & Chavis, 1986), following their participation in adapted physical activity programming. Using the Ryff Scales of Psychological Well-Being, researchers are examining an individual’s autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance as it relates to participation in the adapted programming. Additionally, the Sense of Community Index 2 (SCI-2) is also being employed to measure an individual’s reinforcement of needs, membership, influence, and shared emotional connection.

**189**

**COMPARING AGGRESSION, IMPULSIVENESS, AND VIOLENT CRIMINAL BEHAVIOR IN CONCUSSED AND NON-CONCUSSED ATHLETES**

*Jason Haddix, Western Washington University, USA;*  
*Linda Keeler, Western Washington University, USA;*  
*Jessyca Arthur-Cameselle, Western Washington University, USA;*  
*Michael Fraas, Western Washington University, USA*

Increases in aggression and impulsiveness are common symptoms of traumatic brain injuries (TBI; Rochat et al., 2010) that can affect one’s social standing and can increase the likelihood of deviant behavior (Tateno, Jorge, & Robinson, 2003). Yet, the relationship between concussions, one type of TBI, and athletes’ aggression and deviant behavior is still unknown. The purpose of the study was to examine the differences in aggression (sport and life), impulsiveness, and criminal behavior among athletes with and without a history of concussion. Adult athletes (89 females, 50 males) representing various levels of competition and sports completed the Bredemeier Athletic Aggression Inventory-Short Form, the Buss-Perry Aggression Questionnaire, the UPPS Impulsive Behavior Scale, and a self-report criminal history survey through an anonymous online survey. Results indicated that athletes with a past history of concussion(s) did not statistically differ from athletes with no history of concussions on sport aggression, life aggression, or impulsiveness total scores. In addition, athletes with one medically diagnosed concussion did not statistically differ from athletes with multiple medically diagnosed concussions for the same survey variables. There were also no statistically significant differences on the dependent variables between male and female athletes who had a history of concussion. Additionally, athletes were asked to report the number of violent criminal acts (arrests, charges, and convictions of violent crimes) both pre and post-concussion. Of the 88 athletes with a concussion history, only two athletes (2.7%) reportedly engaged in aggressive criminal behavior after their first concussion. In summary, it appears that a history of concussions in athletes may not be associated with greater deviant behavior. However, anecdotal responses provided by a small number of athletes on an open-ended question at the end of the survey will be discussed that identify possible lingering emotional and/or behavioral symptoms following a concussion.

**190**

**FAIR PLAY IN YOUTH FOOTBALL: REDUCING INJURY RATES THROUGH IMPROVED SPORTSMANSHIP BEHAVIOR**

*Andrew White, Hiram College, USA;*  
*Diane Wiese-Bjornstal, University of Minnesota, USA*

Sport participation is one of the leading causes of injury among American youth, and poor sportsmanship behavior, which is largely under our control, contributes to the risk of sport-related injury (Collins et al., 2008). Theories of behavior modification suggest operant conditioning can promote behavior change, and these behavioral changes can lead to subsequent changes to athletes’ risk of sport-related injury (Verhagen et al., 2010). One such intervention is known as Fair Play, which utilizes operant conditioning by rewarding teams with points toward season standings for each game in which a team receives fewer than a specified number of penalties. Previous research has found that these rules are associated

with lower penalty and injury rates than standard rules in youth ice hockey (e.g., Marcotte & Simard, 1993; Roberts et al., 1996; Smith et al., 2009). Continuing this line of work in youth American football is critical, as competition injury rates in football are higher than those of other sports (e.g., Atay, 2014; Beachy & Rauh, 2014). The current study extended Fair Play research by implementing modified Fair Play rules in a youth American football league. A multiple baseline design was used over two football seasons (7th-8th grade), such that one group of teams used Fair Play rules both seasons (FP-FP), one group used standard rules both seasons (Std-Std), and one group switched from standard to Fair Play rules after one season (Std-FP). Similar to other ABA-based behavior change interventions, small group sizes limited the power to detect differences, but examining mean values revealed complex patterns of injury rates across groups and time. Results suggest Fair Play rules and player sportsmanship behavior affect injury rates in youth American football; however, this effect is complex and further research is required to determine the effect of Fair Play rules in this context.

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### "I NOTICED I CHANGED AS A PERSON:" AN ELITE DISTANCE RUNNER'S RESPONSE TO INJURY

*William Way, West Virginia University, USA;  
Ashley Coker-Cranney, West Virginia University / MindRight  
Performance Consulting, LLC, USA*

This poster will present the case study of a 30 year old elite female distance runner who has competed at NCAA Division I, national, and international levels. The athlete participated in a semi-structured interview, which was deductively analyzed using theoretical frameworks of precursors and responses to athletic injury (Williams & Andersen, 1998; Wiese-Bjornstal et al., 1998). Dominant themes from the interview included developmental maturation and personal growth, utilizing social support and other resources, and cultivating an internal locus of control. Developmentally, the athlete remarked on feeling like "an outsider looking in" to the world of competitive sports during her rural upbringing, and described her first team experiences as helping her to "evolve socially." After feeling obligated to run through an injury while finishing her high school career, she developed a new perspective as a freshman in college "to see the big picture, the long range progression." Further self-reflection was stimulated when a stress fracture rendered her unable to renew her first professional sponsorship after college. Commenting on the value of social support during that injury, the athlete shared that "not isolating myself was a good thing...cuz I did want to just draw back and... not talk to anyone about it." By engaging in deliberate self-reflection and drawing on her support networks, the athlete was increasingly able to frame her experience in terms of "controlling the controllable". This, she said, played a large role in her psychological approach to injury rehabilitation. In regards to her ongoing rehabilitation and return to play, this poster will conclude by offering suggestions for assessment and intervention with this athlete. These applied suggestions may be of interest to other consultants who are working with post-collegiate endurance athletes.

## 192

### MIND OVER MATTER: IS MINDFULNESS BENEFICIAL FOR ATHLETES RECOVERING FROM INJURY?

*Garrett Thomas, Massachusetts General Hospital, USA;  
Lauren Fisher, Massachusetts General Hospital, USA;  
Hannah Reese, Bowdoin College, USA*

Sports-related injuries can have detrimental effects on athletes, often impacting them physically, mentally and emotionally. Interestingly, mindfulness has been found to improve mood, reduce stress and promote overall well-being (Carmody & Baer, 2008). Furthermore, previous literature suggests that mindfulness reduces injury rates (Gustafsson et al., 2015), improves athletic performance (Moore, 2009; Walker, 2013) and improves proprioception (Gustafsson et al., 2015; Mohanty et al., 2014) – all of which may be beneficial for athletes. Despite these potential benefits, the effects of mindfulness interventions on athletes recovering from injury have not been previously researched.

This study implemented a four-week mindfulness intervention to college athletes who sustained an injury that caused mental distress within 12 months of beginning the study. Participants were randomized to receive an instructor-led mindfulness intervention immediately (at Weeks 0, 2, and 4) or assigned to a waitlist. Participants were also required to complete home practice three times per week using 20-minute pre-recorded mindfulness sessions. All participants were assessed on mood (Depression Anxiety Stress Scale), stress (Perceived Stress Scale), mindfulness (Five-Factor Mindfulness Questionnaire), performance satisfaction and proprioception throughout the study.

An Analysis of Variance was conducted to test the hypothesis that the four-week mindfulness intervention was beneficial for athletes recovering from injury. Participants in the intervention group reported significantly decreased levels of stress ( $F(1,12) = 10.13, p = .008$ ) and improved balance ( $F(1,12) = 26.86, p = .001$ ) following the intervention, compared to the waitlist group. Furthermore, only the mindfulness group showed noticeably decreased depressive scores ( $p = 0.069$ ) and greater satisfaction with performance ( $p = 0.09$ ) following intervention.

These findings support the idea that mindfulness training may decrease stress and improve balance for athletes who are recovering from injury and may help to alleviate associated emotional distress. Further research should explore the benefits of incorporating mindfulness into injury rehabilitation.

## 193

### MULTIFACTOR CONCUSSION ASSESSMENT: CONVERGENCE AND SENSITIVITY TO INJURY

*Olivia Wyatt, University of Denver, USA;  
Bradley Davidson, University of Denver, USA;  
Kim Gorgens, University of Denver, USA*

Repeated concussions, or mild traumatic brain injuries (mTBIs), often result in post-concussion syndrome—adverse physical, balance, emotional, and/or cognitive symptoms—and potentially long-term neurodegeneration (Meier et al., 2015; see e.g. Orr et al., 2016). There is an urgent need for more effective and trustworthy clinical tests that are specific to injury mechanism and can indicate the long-term

effects of mTBIs on the brain health of an athlete. However, neurocognitive concussion research rarely considers more than one contributor to post-concussion syndrome at a time and often ignores neurobiological markers of brain health. The major objectives of this multi-phasic, prospective, interdisciplinary study are 1) To assess and improve the sensitivity of existing clinical measures and 2) To associate these with well-known biomarkers of Alzheimer's Disease (AD) and related dementias. Currently, at the culmination of Phase I, 237 D1 athletes have participated in baseline symptom, cognitive, movement/balance, and biomarker collection; 15 athletes who had suffered an acute concussion were recruited to be followed post-concussion. The highest rates of previous mTBIs were found among lacrosse players (41%), followed by soccer (38%) and hockey (32%). To improve the interpretative sensitivity of the objective symptoms and neurocognitive assessments, in Phase II, we will determine the extent to which psychological factors influence these results. This mixed-methods approach will include interviews of the injured athletes at each one of the post-concussion assessments that focus on the athlete's subjective experience including fear of reinjury or a desire to be excused from play. The results will map subjective experiences onto clinical data to better predict long-term risk for adverse outcomes and inform the design of interventions to support post-injury rehabilitation.

## 194

### **PSIXPORT: A MOBILE APP FOR ASSESSING PSYCHOLOGICAL DIMENSIONS RELATED TO THE SPORT INJURY REHABILITATION**

*Victor Rubio, Universidad Autonoma Madrid, Spain;  
Luis Gonzalez-Barato, CPAD-UAM, Spain*

Sports Injuries' rehabilitation process has been of a major interest topic in the field of Sport Psychology research. Integrated Model of Response to Sport Injury by Wiese-Bjornstal's et al. (1998) poses that personal and situational factors influence the injured athletes' cognitive appraisals and consequently emotional and behavioral responses. These responses have been usually collected via retrospective self-reports but the nature of the dimensions to be assessed demands a real-time data capture in order to avoid recall and distortion biases and to increase ecological validity. With this goal, a mobile app (Psixport®) was designed from an Ecological Momentary Assessment (EMA) approach, assessing pain, cognitive, emotional and behavioral responses related to the rehabilitation process. Once the assessment period starts, the athlete daily receives a push reminder on the cell phone inviting him/her to answer the different items on a 0-100 rating scale. If the athlete proceeds the app collects the information and sends it to a server. Otherwise, the athlete receives another reminder 30 min later. App feasibility and information validity have been tested with a sample of 30 athletes from sports such as soccer or rugby, assessed during at least a 15-day period during their severe injury rehabilitation process. Results showed the app was able to capture the psychological variables involved in the rehab process and discriminated inter- and intra-examinee scores. The app was positively rated by the athletes who used it and appeared to be a useful tool for sport medicine practitioners.

## Mental Health

## 195

### **EXAMINING PSYCHOSOCIAL CORRELATES OF DISORDERED EATING AMONG MALE COLLEGIATE ATHLETES**

*Dalton Mack, University of North Texas, USA;  
Trent Petrie, University of North Texas, USA*

Petrie, Greenleaf, Reel, & Carter (2009) examined psychosocial correlates among female collegiate athletes that serve to predict disordered eating patterns, finding that high scores on scales measuring body image concerns, weight pressures, sociocultural internalization, and mood state were found significantly more commonly in either the eating disorder or symptomatic group as opposed to the asymptomatic group. Unique or nuanced pressures exist for male athletes as well, specifically a different ideal for body image, often described by a drive for muscularity (Cafri et al., 2005).

We examined these effects with 698 male collegiate athletes. Lower prevalence rate of male eating disorder classification ( $n = 6$ ) via the Q-EDD (Mintz et al., 1997), led us to use just symptomatic (inclusive of disordered eating) and asymptomatic categories, especially considering the similarly reported levels of disturbance between symptomatic and eating disordered group in the parallel female study. A logistic regression analysis was conducted to predict symptomatic behaviors using weight pressures, muscularity-oriented body image, sociocultural internalization and mood state as predictors. A test of the full model against a constant-only model was statistically significant, indicating that the predictors as a set reliably distinguished between symptomatic and asymptomatic behaviors ( $\chi^2 = 70.76$ ,  $p < .001$  with  $df = 4$ ). Nagelkerke's  $R^2$  of .16 indicated a modest relationship between prediction and grouping. Prediction success overall was 84%. The Wald criterion demonstrated that weight pressures ( $p < .001$ ) and mood state ( $p = .003$ ) made significant contributions to prediction. A follow-up discriminant analysis indicates that the former canonical dimension is most strongly influenced by the belief that leaner athletes are at a distinct performance advantage ( $R_c = .59$ ) and for the latter dimension, guilt as a mood state ( $R_c = .89$ ). These results suggest a significant link between specific beliefs about self and others and eating pathology in male athletes.

## 196

### **IMPACT AND DURATION OF EXERCISE, HUMOR, AND EXERCISE AND HUMOR COMBINED ON PSYCHOLOGICAL WELL-BEING**

*Camille Rex, University of Mary Hardin-Baylor, USA*

The links between mood and both exercise and humor are well-established. Szabo (2003) found that humor and exercise had equally positive acute effects on psychological distress (PD) and positive well-being (PWB), but that humor led to greater reductions in anxiety (SA) than exercise; however, exercise and mood were not combined to determine if there was an additive effect. The purpose of this study was to examine the impact and duration of exercise and humor, individually and together, on mood. Twenty-eight male ( $n = 9$ ) and female ( $n = 19$ ) undergraduate students completed five trials. Prior to and 5, 30, 60, and 120 minutes following each trial, participants completed the state scale of the State-

Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and the Subjective Exercise Experiences Scale (McAuley & Courneya, 1994), resulting in 4 dependent variables: SA, PWB, PD, and fatigue (F). Trials lasted 20 minutes and included outdoor exercise (E), listening to a comedy routine (H), the E and H conditions combined (E + H), listening to a documentary (D), and the D and E conditions combined (D+E). Percent change scores were calculated for each dependent measure at each time point. Separate 5(condition) X 4(time) ANOVAs were conducted for each dependent variable. A significant main effect for condition emerged in each analysis. For SA, H+E was significantly lower than D. For PWB, there were no significant differences between conditions. For PD, D was significantly higher than H and E+H, and E+H was significantly lower than E+D. For F, D was significantly greater than H and E+D. There were no main effects for time or significant differences between E, H, and E+H, indicating that E, H, and E+H might be equally effective in enhancing mood and that there are no differences in the duration of the effects.

## 197

### POSITIVE BODY IMAGE BETWEEN STUDENT ATHLETES AND NON-ATHLETES

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Alicia Kauffman, Saint Louis University, USA;  
Hannah Fitterman-Harris, Saint Louis University, USA;  
Joanne Perry, UNC Charlotte, USA;  
Michael Ross, Saint Louis University, USA

Purpose: Research on athlete body image has focused primarily on body dissatisfaction. Recently, research has investigated the construct of positive body image, defined as the love and respect people have for their bodies. However, such research has not been conducted with athletes. The current study examined differences in positive body image between student-athletes and non-athletes. Additionally, the present study explored the relationships between positive body image and conceptually-related variables of sport confidence, flow state, and performance. Methods: Participants will include Division I collegiate athletes and non-athletes from a Midwest university. This study is currently in the data collection phase and will end by May 2018. The final sample size will include approximately 200 student athletes and non-athletes. Athletes and non-athletes will complete two measures of positive body image (Body Appreciation Scale-2 and Functionality Appreciation Scale). Athletes will subsequently complete measures of sport confidence, flow state propensity, and a subjective assessment of their athletic performance. Results: The current study will utilize Pearson correlations to determine associations between variables. It is hypothesized that athletes will report higher levels of positive body image compared to non-athletes. It is also hypothesized that greater levels of positive body image will be associated with greater levels of sport confidence, flow state propensity, and subjective performance. Lastly, two separate mediation analyses will be used to explore the potential role of sport confidence and flow state as the mechanisms by which positive body image relates to subjective performance. Discussion: These results will provide sport psychologists, coaches, and athletes with valuable information regarding the relationship between athletes' positive body image and sport attitudes, experiences, and behaviors. Implications for interventions will also be discussed.

## 198

### PSYCHOSOCIAL PREDICTORS OF DISORDERED EATING: FEMALE ATHLETES FROM COLLEGE SPORT TO RETIREMENT

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Trent Petrie, University of North Texas, USA;  
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Female athletes are at-risk for eating disorders (ED) due to body and appearance pressures in the sport environment. Longitudinal research (e.g., Krentz & Warschburger, 2013) suggests that psychosocial variables (e.g., body dissatisfaction, dietary restraint) predict ED symptoms when athletes are actively competing. Because EDs continue into athletic retirement, research is needed to examine how similar psychosocial variables might predict symptomatology in that time period. In a sample of 193 NCAA Division I female gymnasts and swimmers, we collected data on EDs and psychosocial functioning when they were active competitors (February 2009; T1) and EDs when they had been retired 2-6 years (2015; T2). The athletes completed measures on ED diagnosis, body satisfaction, internalization, dietary restraint, negative affect, and societal weight pressures. We separated the sample based on T1 ED diagnosis (asymptomatic,  $n = 144$ ; clinical,  $n = 49$ ) and ran a logistic regression for each (T1 psychosocial variables served as predictors of T2 ED diagnosis). For the asymptomatic group, T1 psychosocial variables did not significantly predict athletes' T2 ED classification,  $\chi^2 [11, N = 49] = 7.42, p = .764$ . For the clinical group, however, the T1 variables were significant,  $\chi^2 [11, N = 144] = 21.62, p = .027$ ; Nagelkerke  $R^2$  was 47.6% and 79.6% of the overall T2 ED cases were classified correctly (75.0% of asymptomatic athletes; 84.0% of clinical athletes). The athletes' T1 body satisfaction ( $\beta = -1.71, OR = .18, 95\% CI [.04, .92]$ ) and pressure to exercise ( $\beta = 2.73, OR = 15.31, 95\% CI [1.19, 196.89]$ ) were significant in the model. Experiencing more body dissatisfaction and pressures to exercise when actively competing significantly increased the odds of the athletes remaining classified with an ED in retirement. Psychosocial predictors appear particularly relevant for determining which active athletes continue to experience clinical ED symptoms in retirement.

## 199

### THE RELATIONSHIP OF APPEARANCE PRESSURES, EXERCISE BEHAVIORS, AND REASONS FOR EXERCISE ON THE PSYCHOLOGICAL WELL-BEING OF RETIRED FEMALE ATHLETES

Matt Mikesell, University of North Texas, USA;  
Trent Petrie, University of North Texas, USA

Retirement from sport can be difficult for athletes (Lavalley, Gordon, & Grove, 1997), and may be associated with challenges such as weight gain, muscle loss, and degradation of physical skills (Stephan et al., 2007), and reductions in self-esteem, physical self-worth and perceived physical attractiveness as well as identity confusion, depression, body dissatisfaction, and eating disorders (e.g., Stephan et al., 2003; Stephan et al., 2007). In the current study, we examined societal appearance ideals/pressures, exercise, and reasons for exercise in relation to the psychological well-being (i.e., depression, satisfaction with life, body satisfaction) of 218 college female athletes who had been retired from 2-6 years. We examined the relationship of the predictors to each measure of psychological well-being through a series

of multiple regressions, controlling for BMI and years since retirement. For SWL, variables explained 15% of the variance ( $p = .004$ ); pressures to be more muscular ( $\beta = -.21$ ,  $p = .05$ ) and exercising to meet romantic partners ( $\beta = -.18$ ,  $p = .04$ ) predicted lower SWL. For the PHQ, variables explained 26% of the variance ( $p < .001$ ); pressures to have a perfect body ( $\beta = .34$ ,  $p = .004$ ) and exercising to improve physical appearance ( $\beta = .34$ ,  $p = .002$ ) predicted lower PHQ. For the BPSS, variables explained 37% of the variance; exercising to improve physical appearance ( $\beta = -.21$ ,  $p = .04$ ) and exercising to prevent illness/injury ( $\beta = .20$ ,  $p = .009$ ) predicted lower BPSS. Overall, psychological well-being may be best predicted by perceived sociocultural pressures and exercise behaviors to look a certain way, as well as exercising for health-related reasons. The present findings are consistent with previous findings indicating that female athletes may engage in exercise behaviors as a mechanism for coping with undesired bodily changes in retirement (Plateau, Petrie, & Papatthomas, 2017; Stirling et al., 2012).

## 200

### THE RELATIONSHIP OF SPORT TYPE TO DISORDERED EATING CORRELATES AMONG COLLEGIATE MALE ATHLETES

*Kaleb Cusack, University of North Texas, USA;*  
*Trent Petrie, University of North Texas, USA*

Petrie and Greenleaf's (2012) sociocultural model proposes that athletes experience unique sport environment pressures regarding weight, body size/shape, eating and appearance that increases their risk of developing disordered eating (DE) attitudes and behaviors. Such pressures are likely to vary by sport depending on its unique environment and performance demands. For instance, as expected, female athletes in leanness sports experience more body dissatisfaction and societal appearance pressures compared to those in nonleanness sports (Kong & Harris, 2015). Because these effects have been established primarily with female athletes, we examined them with 695 collegiate male athletes who represented five sport types (endurance, ball game, power, technical, weight-dependent). Through a series of one-way MANCOVAs (BMI served as the covariate), we found that sport type was related significantly to general societal appearance pressures ( $\lambda = .92$ ,  $p = .001$ ), sport-specific weight/body pressures ( $\lambda = .58$ ,  $p < .001$ ), internalization of appearance ideals ( $\lambda = .97$ ,  $p = .003$ ), body satisfaction and drive for muscularity ( $\lambda = .85$ ,  $p < .001$ ), and eating pathology ( $\lambda = .89$ ,  $p < .001$ ); it was nonsignificant with negative affect.

Significant results from univariate ANCOVAs indicated that endurance athletes reported lower internalization than ball game, technical, and weight-dependent athletes, lower muscularity driven behaviors than ball game, power, and weight-dependent athletes, more leg satisfaction than ball game and technical athletes, greater upper body satisfaction than ball game, power, and technical athletes, and lower muscularity-oriented body image than all other sport types. Endurance and weight-dependent athletes experienced more pressures related to their uniforms than other sport types. Weight-dependent athletes reported more weight pressures from coaches/teammates and dietary restraint than other sport types, and more bulimic symptoms than endurance, ball game, and power athletes. The results support the sport types are unique and communicate different levels of body, weight and appearance pressures that may affect male athletes' reporting of DE attitudes and behaviors.

## 201

### WELL-BEING FOR STUDENT ATHLETES – A SHORT VACATION IN THE MIDDLE OF THE DAY!

*Darrell Phillips, University of Kansas, USA*

The costs of living as a student athlete include the loss of mental and physical energy required for student athletes to commitment to their sport, team and university. Additionally, the psycho-physiological costs to maintain academics, coursework, family ties, social commitments, and possible work responsibilities leads to a loss of psycho-physiological resources. Conservation of Resources Theory argues individuals non-consciously allocate energies to reduce the chance for a total loss. This allocation has the potential to rob resources from athletic performance. Conversely, daily practice of proactive recovery experiences may return those lost psycho-physiological resources. This series of proactive recovery experiences has been demonstrated to be pliable skill that can be developed with mental skills training (MST). Proactive Psychophysiological Stress Recovery training can be delivered as a series of workshops for developing and expanding the use of MST toward the development of proactive psycho-physiological recovery skills. Workshops that focus on using goal setting to enhance daily schedule control (based on Self Determination Theory) and teach the importance of engaging in activities that require psychological detachment are two key constructs. Coupling these with the sustained practice of mastery producing experiences (building self-efficacy) and relaxation strategies to facilitate quality sleep behaviors provide the four components of Proactive Stress Recovery Experiences. The practices, when practiced purposefully, have been demonstrated to be effective with adult workers and student athletes. Empirical evidence and a teaching model will be presented supporting the use of MST for psycho-physiological recovery of lost resources.

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#### Non-Sport Performance Applications

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## 202

### ALL IN MY HEAD...OR MY BODY? A COMPARISON OF PSYCHOLOGICAL SKILLS TRAINING AND THE ALEXANDER TECHNIQUE IN MANAGING AUDITION ANXIETY IN THEATRE STUDENTS

*Elizabeth Pacioles, Marshall University, USA;*  
*Holly Cyphert, Marshall University, USA;*  
*Nicole Perrone, Marshall University, USA*

Whether in an athletic arena or on a stage, both the mind and the body can be routes for interventions in managing performance anxiety. The purpose of this study was to compare the effects of Psychological Skills Training (PST) vs. the Alexander Technique (AT) on psychological and physiological indicators of audition anxiety in college theatre students. Fifteen college students completed the State-Trait Anxiety Inventory (STAI) as well as blood pressure, heart rate, and cortisol measurements at three time periods (pre-audition, post-audition, and a non-audition day baseline) at a pre-intervention audition and twelve weeks later at a post-intervention audition. Participants were randomly assigned to PST, AT, or a no-intervention control group. The PST group consisted of workshops on strategies such as reappraisal of anxiety symptoms, cognitive reframing, task- and process-focused thinking, and imagery. The AT group consisted of somatic education and exercises



aimed at development of body awareness and promotion of intentional and mindful movement patterns. State anxiety was lower in audition day measurements for the PST group compared to the AT and control groups. However, there were no differences in physiological measurements among the groups. These results suggest that the same physiological symptoms may have been interpreted differently by the PST group. Overall, there were no differences between baseline and audition day physiological measurements. In comparison, there were significant differences in self-reported state anxiety between baseline and audition day, suggesting that instead of actual physiological changes, audition anxiety may be more cognitively derived. Implications include support for the matching hypothesis (Maynard et al., 1995), indicating the benefits of matching the intervention to the predominant type of anxiety symptoms. Theatre students and instructors would benefit from differentiating cognitive and somatic symptoms, as well as considering the effectiveness of both mind and body strategies when determining interventions for managing audition anxiety.

### 203

#### FOR THE WIN: HOW SELF-TALK CAN INFLUENCE VIDEO GAME PERFORMANCE

*Hailey Allegro, Mount Royal University, Canada;  
Carrie Scherzer, Mount Royal University, Canada*

The present study explores the effects of positive and negative self-talk on video game performance. A great deal of research has been conducted that connects positive self-talk with superior performance, while negative self-talk is related to hindered performance (Hatzigeorgiadis, Zourbanos, Mpoumpaki, & Theodorakis 2009; Van Raalte, Brewer, Lewis, & Linder, 1995). Additionally, some individual differences may influence self-talk and, therefore, performance. These include depression, self-criticism, anxiety, and psychological capital (Gilbert, Clarke, Hempel, Miles, & Irons, 2004; Lueke & Skeel, 2017; Hatzigeorgiadis et al., 2009; Lorenz, Beer, Putz, & Heinitz, 2016). The participants in the present study first reported a number of state emotions and performance anxiety. Then, the participants were divided into one of three groups. Those in the experimental groups were told to use either positive or negative self-talk during the performance task; the control group received no instruction or information about self-talk. The participants then played the video game Charlie the Duck for ten minutes. Number of completed levels, lives lost, and total score were recorded as the dependent variables. After play, participants filled out a self-criticism and psychological capital questionnaire, and provided demographic information. Preliminary results showed a non-significant difference of score between the three groups, as indicated by a one-way ANOVA ( $F = 2.281, p = .218$ ). There was a significant correlation between performance anxiety and level progression ( $r = .715, p < .05$ ). It is possible that these results are due to the fact that anxiety may enhance performance, if the person believes the anxiety is facilitative, as opposed to detrimental (Strack, Lopes, Esteves, & Fernandez-Berrocal, 2017). A more detailed analysis will be presented after additional data is collected.

### 204

#### MAKING SPORT PSYCHOLOGY PRACTICAL AND PROFITABLE INSIDE THE BOARDROOM

*Ed Garrett, California Baptist University, USA;  
Kristin Mauldin, California Baptist University, USA*

Corporations continue to seek ways to increase staff performance. As in athletics, successful performance involves the bringing together of complex skills and abilities directed towards achieving specific and meaningful goals and targets. We have seen such government entities as the Armed Services taking advantage of mental performance by utilizing sport psychology practices. The similarities between sport and business renders the principles of sport psychology fully applicable to business arena.

Today's business community is positioned perfectly for sport psychology professionals to engage by thinking outside the sporting arena for future cliental - a term referred to as business sport psychology. By applying cognitive practices an enhancement and performance program was developed for the Mississippi Department of Human Services (MDHS). Major objects were geared towards helping the organization think through how they communicate and relate to their employees. The focus was a horizontal approach to their performance empowerment. Four primary modules were developed. This development led to a CMPC being contracted to develop curriculum and cognitive performance training for the senior leadership. The primary goal was centered around the implementation of cognitive enhancement within work teams State wide.

Final results from the business sport psychology program will be discussed at the conference in the hopes of promoting further opportunities for those in attendance. Key learning points include: 1. A review of literature, 2. Current data from the MDHS project, 3. Presenting a framework for the contract negotiations, and 4. Provide attendees best practice details focused on exploring the business sport psychology environment. Audience members will have the opportunity to ask questions and formulate a business model that works for them. Attendees will leave with an understanding of what it takes to succeed in private practice and receive honest responses about the nuts and bolts of doing applied work in a business environment.

### 205

#### OUTDOOR SPORTS, EXERCISE AND SELF-CONTROL: EXAMINING PREDICTORS FOR PRO-ENVIRONMENTAL BEHAVIOR IN THE SPORTS AREA

*Lisa Oswald, University of Kassel, Center for Environmental Systems Research, Germany;  
Andreas Ernst, Center for Environmental Systems Research, University of Kassel, Germany*

The objective of the present study is to identify predictors for pro-environmental behavior that offer practical implications for its promotion. It focuses on the impact of aspects in the field of sports, especially in outdoor sports. Outdoor athletes experience nature more frequently and intensely than others, and might therefore have a stronger interest in actively tackling environmental problems. In addition, sporting activity in general might facilitate pro-environmental behaviour, mediated by volitional competence. The current sample ( $N = 298$ ) includes competitive and recreational athletes practicing

different kinds of sports, in particular outdoor sports. Self-reported environmental behaviour of the outdoor athletes has been compared to the behaviour of indoor and field-athletes by use of univariate ANOVA. The results suggest that outdoor athletes show significantly higher pro-environmental behaviour than indoor- and field-athletes. The predictors experiencing nature in outdoor sports, gender, location, education, planning ability - a subscale of volition - and seven further regressors explained 24.66% of the variance in pro-environmental behaviour, estimated with the measure of relative importance of the lmg-algorithm within the R-package relaimpo.

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### Professional Development, Supervision, and Mentoring

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## 206

### ATTITUDES OF SPORT PSYCHOLOGY PROFESSIONALS WORKING WITH ATHLETES WITH HIDDEN DISABILITIES

*Robyn Braun, University of Texas of the Permian Basin, USA;  
Shelby Greene, University of Texas of the Permian Basin, USA;  
Bonnie Braun, University of South Florida St. Petersburg, USA*

The term hidden disability (HD) refers to conditions or disorders that are not obvious to the casual observer, meaning the individual has no obvious physical characteristics of a disability, such as specific learning disabilities, attention deficit hyperactivity disorder, or autism spectrum disorder (Bodey, 2010). Sport psychology professionals can play a pivotal role in facilitating psychological skills training for athletes with HD (Braun & Braun, 2015). However, sport psychology professionals may not have the training to recognize the needs of athletes with HD or be able to change their instruction. The current study examined sport psychology professionals' preparation and attitudes toward working with athletes with HD. Participants included 58 sport psychology professionals (males = 14; females = 44) ranging in age from 22 to 59 years old with 24 participants identifying as current students. The majority of participants have not completed any courses (n = 31) or professional workshops (n = 38) that focus on athletes with HD. From a 16 item questionnaire using a 5 point Likert scale, the majority of respondents agreed athletes with HD have the right to be included in sports and do not need to have better athletic skills. Results indicate that graduate programs do not adequately prepare sport psychology professionals and have little specific training to prepare them to consult with athletes with HD. Therefore, participants support the inclusion of a graduate course designed for consulting athletes with HD and other disabilities. When examining differences in student status, it was reported that students disagree that athletes with HD need to be included with non-disabled peers in sports, feel less comfortable, more concerned, and stressed when working with athletes with HD. The findings underscore the need for improved education and training for sport psychology professionals to meet the needs of all athletes.

## 207

### ENTRY OR EXIT: AN INVESTIGATION INTO THE PERCEPTIONS AND ANTECEDENTS OF EMPLOYMENT INTERVIEW SKILLS

*Chris Harwood, Loughborough University, UK;  
Toby Woolway, Loughborough University, UK*

Gaining entry to practice within sport psychology often necessitates an employment interview prior to any organisational work with clients; however studies of practitioner

employment qualities and job interviewing skills are limited within sport psychology. Recent research has suggested that the consultant's interpersonal skills, beliefs regarding sport psychology effectiveness, collaborative nature, and effective presentation of competencies play a major role in employers' perceptions of the practitioner candidate (Woolway & Harwood, under review). Such research highlights a potential lack of recognition of these 'business-related' skills and the importance of the employment interview with current neophyte training and supervision programs. The purpose of this current study was to investigate whether trainee (i.e., neophyte) sport psychologists could identify employment interview skills essential to a successful self-presentation and interview performance. In addition, the participants self-perceived skill levels, and the perceived sources of such skills for interviews were examined. Thirty-one participants in stage 1 of training within a UK certification pathway (M=14, F=17; Mage=23.6) participated in a mixed methods research study which utilized videos of two scripted employment interviews (a good versus poor interview performance) between a sport psychology consultant and an interview panel. Results indicated that participants could identify the core interview skills differentiated within the scripted videos. However, although participants perceived their own levels of affability and collaboration skills as high, they reported low perceptions of projecting confidence in sport psychology and the ability to present their competencies. Participants highlighted parental influences, quality of peer interactions, education, and practical experience as key sources of employment interview skill development. Our findings indicate controllable and less controllable sources of interviewing skills, and how attention should be given to trainee practitioners in bespoke education and preparatory experiences for the employment interview. Implications for consultants and certifying bodies will be discussed vis a vis methods of enhancing interview skills.

## 208

### FURTHER EDUCATION IN APPLIED SPORT PSYCHOLOGY IN GERMANY

*Christian Heiss, Performance Entwicklung, Germany;  
Christopher Willis, Mental Excellence, Austria;  
Bernd Strauss, University of Muenster, Germany*

Since over ten years the German society of sport psychology (asp) is in charge of the further education in applied sport psychology in Germany. The talk will present the development of the further education in applied sport psychology in Germany starting in 2002 with an educational concept highly linked to an academic, scientifically based approach to address typical problems in applied sport psychology such as team development or emotion management. Over the years upset within the participants increased, due to the fact that they didn't feel well prepared to real world problems and challenges in the field of applied sport psychology, based on the original educational concept. Thus, a major change of the further education concept was implemented in 2013 and is still ongoing. In a nutshell the change consists of three steps:

First step aims to equip every participants with a fundamental consolidated knowledge in Psychology or Sport-Science. This aspect of fundamental skill training was essential, because in Germany the pathway towards the field of applied sport psychology is paved either with an academic Master Degree in Sport Science or Psychology. Second step highlights key topics in applied sport psychology, such as psychological skill training and sport psychological counseling. Lastly within

the third step, a practical training in the field of elite sports was incorporated. This included a professional supervision concept which was set up online, peer to peer and face to face with an experienced, licensed sport psychological consultant. The presentation will conclude with general reflections on further education in applied sport psychology in Germany, including highlights, challenges, lessons learned and future directions.

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### Professional Issues & Ethics

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**209**

**FOCUS ON ETHICS: BOUNDARIES IN SPORT PSYCHOLOGY SETTINGS**

*Ivana Vinnick, USA;*  
*Sandra Lee, Seton Hall University, USA*

In psychology, the discussion of boundaries focuses on the ethics and guidelines distinguishing professional and social relationships, by defining roles and protecting the well-being of the client. In sport psychology settings, these boundaries are different than those in traditional psychology settings by being much more lenient. These differences occur because of time, space, and the prevalence of dual relationships in sport psychology settings.

Time in the sport psychology setting typically is not set to a specific limit and for a scheduled date and time. Sessions are often brief, and occur whenever a session is needed for an athlete.

The space in sport psychology is wherever the session is needed, which is often not in a professional office setting. These spaces may include the playing field, the practice field, a hotel lobby, and even various types of transportation for sport psychologists that travel with a specific team.

Sport psychologists may not always be seen in a strictly traditional and professional way, due to the time and space of sessions, which is how dual-relationships are created. There are a variety of dual-relationships in sport psychology that are healthy and beneficial, but it may be difficult at times, and complex, to keep them from becoming harmful. Two of the most notable, and common, dual-relationships are the coach practitioner role and the teacher-treater role. Due to these nontraditional and differently defined boundaries and boundary issues, sport psychologists need to use all the tools available, and good decision-making, to ensure that these boundary crossings do not become harmful boundary violations.

**210**

**SPORT PSYCHOLOGISTS' PROFESSIONAL QUALITY OF LIFE: THE DEVELOPMENT OF A MODEL AND MEASURE**

*Alessandro Quartiroli, University of Wisconsin - La Crosse, USA;*  
*Christopher Wagstaff, University of Portsmouth, UK;*  
*Ed Etzel, West Virginia University, USA*

Scholars within the field of psychology have increasingly reflected on the cost of caring for oneself and the professional quality of life of people in helping professions. Indeed, the examination of enriching and challenging aspects of helping professions has become central to this discourse. In line with these developments, researchers have attempted to better

understand Sport Psychology-Professional Quality of Life (SP-PQL) (Quartiroli, Etzel, Knight, & Zakrajsek, 2018). This study aimed to develop and reach expert-consensus on an operational definition, conceptualization, and measure of SP-PQL. Specifically, in this presentation we will outline a rigorous, iterative three-stage Delphi process which was undertaken to reach expert panel consensus. In total, a multinational sample of 16 participants with over 10 years of experience in sport psychology, completed the three-stage Delphi. The results of the Delphi led to the development of a consensus-based definition of SP-PQL and a novel 42-item instrument to measure SP-PQL among this under-represented professional group. This study significantly extends knowledge on professional quality of life in sport psychology and offers a bi-dimensional model comprising Challenges to and Strategies to foster SP-PQL. Further, this work offers applied utility regarding the definitional, conceptual, and measurement advances emanating from this study and new knowledge relating to professional development, education, and future research.

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### Research Design

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**ADVANCEMENT OF THE MENTAL TOUGHNESS QUESTIONNAIRE-48: EXAMINING ALTERNATIVE MEASUREMENT MODELS**

*Masato Kawabata, Nanyang Technological University, Singapore;*  
*Tristan Coulter, Queensland University of Technology, Australia;*  
*Toby Pavey, Queensland University of Technology, Australia*

The Mental Toughness Questionnaire-48 (MTQ48; Clough, Earle, & Sewell, 2002) is a 48-item self-report instrument often used to measure one's level of mental toughness. Recently, the MTQ48 has been criticized because hypothesized 4- and 6-factor structures have not been supported in several studies (e.g., Gucciardi, Hanton, & Mallett, 2012). Considering its wide popularity in psychological studies, it is constructive to resolve the factorial validity issue of the MTQ48 from a theoretical, statistical, and practical perspective. Therefore, the present study aimed to a) re-assess the validity and reliability of the MTQ48 with a large sample and b) propose an alternative model covering all 6 aspects of mental toughness to advance measurement of this construct with a brief version of the MTQ48.

Participants were recruited at a public university in Australia. A total of 2,181 students (802 men, 1,384 women; Mage = 23.9, SD = 8.1), whose first language was English, voluntarily participated in the study and completed the MTQ48. The factorial validity of the original and alternative models were examined with Mplus (version 8.0) within the framework of confirmatory factor analysis (CFA) and exploratory structural equation modeling. Overall fit of the models was assessed with several criteria. Neither 4- or 6-factor CFA models with 48 items fit the data satisfactorily (4-factor CFA model:  $\text{MLM}\chi^2 [1,074] = 11,318.4$ , CFI = 0.668, TLI = 0.651, SRMR = 0.069, RMSEA = 0.066; 6-factor CFA model:  $\text{MLM}\chi^2 [1,065] = 9,968.1$ , CFI = 0.711, TLI = 0.694, SRMR = 0.070, RMSEA = 0.062). However, an alternative CFA model, with items selected on theoretical and statistical grounds, demonstrated excellent fit to the data ( $\text{MLM}\chi^2 [9] = 49.0$ , CFI = 0.976, TLI = 0.959, SRMR = 0.022, RMSEA = 0.045). The result indicates that the alternative model resolves the factorial validity issue of the MTQ48.

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### CONSIDERING THE PRACTICAL UTILITY OF THEORY

*Vicki Tomlinson, John F. Kennedy University, USA*

Within this study, the utility of theory became more prominent as the process of action research (AR) developed and moved forwards. Based on a series of collaborative practitioner meetings, practitioners were introduced to the concept of subjective well-being (SWB). The utility of SWB continued as the main point of reference to evaluate practice, however, observations in daily practice and insight into practitioner perceptions appeared to reflect the tenets of psychological well-being (PWB), creating visible links between theory and practice. PWB had a more pragmatic feel, relating to everyday practice. Practitioners welcomed the concept of PWB, as they appeared to view it as a reliable framework and useful point of reference. Consequently, practitioner professional knowledge was enhanced with regards to PWB in practice, which practitioners could then utilize, along with practitioner craft knowledge to facilitate the practice-change process. It must also be noted that, it is only with practitioner craft knowledge within the AR process that practice-change strategies can be successfully applied. This also supported the notion put forward by McFee (1993) that both craft knowledge and professional knowledge were fundamental to the epistemology of AR. Practitioners grew in confidence, as they were able to demonstrate greater awareness and understanding of the PWB components within practice, that in turn triggered the process of AR to gather momentum. Each practitioner was able to link craft knowledge and everyday practice to newly found professional knowledge based around the components of PWB. Echoing Gilbourne's (2000) sentiments, this research was able to demonstrate that emancipatory AR had taken place through the empowerment of practitioners. This resulted in different practitioners able to apply their professional knowledge and craft knowledge to meet the needs of their own practice, whilst at the same time, all practitioners were committed to the same goal, towards improving PWB within academy practice.

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### DEVELOPMENT AND PRELIMINARY VALIDATION OF A NEW MEASURE OF STRESS AND RECOVERY

*Carly Wahl, University of Wisconsin Milwaukee, USA;  
Stacy Gnacinski, Drake University, USA;  
Mellanie Nai, University of Wisconsin - Milwaukee, USA;  
Barbara Meyer, University of Wisconsin-Milwaukee, USA*

On the cutting edge of sports medicine, psychological measures are increasingly incorporated into athlete training load monitoring programs (Nässi et al., 2017; Saw et al., 2016). However, researchers have identified gaps regarding the psychometric properties and practical applications of such measures (Gnacinski et al., in review; Taylor et al., 2012). These gaps in the literature prompt a need to develop new instruments using data-driven procedures. To develop a new measure with improved psychometric properties and practical value, the purposes of the current study were to generate an item pool and assess content validity of that item pool. Items were generated based on theory and research from several bodies of literature: stress and recovery (Kellmann, 2010), occupational recovery (Nässi et al., 2017), athlete burnout (Isoard-Gautheur et al., 2010), and mood (Kenttä et al., 2006). To assess content validity, six currently competing collegiate and professional athletes (5 females, 1 male) from diverse

sporting backgrounds served as expert reviewers. Using a 4-point scale (1 = poor, 4 = very good) reviewers were asked to rate how accurately each item reflected the construct definitions provided. Individual content validity index (I-CVI; Lynn, 1986) and mode calculations served as two criteria for classifying items as having good (i.e., both criteria met), fair (i.e., one criterion met), or poor (i.e., zero criteria met) levels of content validity. Results indicated that 41 items had good (7 stress, 34 recovery), 27 items had fair (13 stress, 14 recovery), and 47 items had poor (37 stress, 10 recovery) levels of content validity. The current findings provided preliminary guidelines as to which items should be retained, reviewed further, or eliminated, thereby suggesting initial psychometric evidence for items to be included in a new and practically relevant measure.

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### EFFECTS OF COOPERATIVE GAMES ON SPORT ENJOYMENT IN PHYSICAL EDUCATION

*Eliane Stephanie Engels, Leuphana University Lüneburg, Germany;  
Philipp Alexander Freund, Leuphana University Lüneburg, Germany*

One of the most important factors continuing sports is perceived enjoyment (Woods, Tannehill, & Walsh, 2012). Previous research has provided evidence that social aspects and perceived sport competence are relevant for the perception of enjoyment in physical education (Scarpa & Nart, 2012). Cooperative games focus on improving social cooperation, collective target achievement, trust in each other and feelings of success (Gilsdorf & Kistner, 2010). In this study we developed an intervention program and examined (a) if cooperative games in physical education can increase the perception of sport enjoyment in students; (b) whether cooperative games lead to a higher feeling of social relatedness as well as to a higher perceived competence; (c) if social relatedness and perceived competence mediate the influence from cooperative games on sport enjoyment.

We used a two-group pre-test/post-test design and class-wise randomization to conditions with N = 143 students (female: 43.4%; 11 - 14 years, M = 12.5 years, SD = 1.50). Sport enjoyment, social relatedness and perceived competence were measured using the Questionnaire for the Assessment of Enjoyment in Physical Education (Engels & Freund, submitted). All scales included three items that were rated on a 4-point rating scale.

Results showed significantly higher means for sport enjoyment in the experimental group compared to the control group. Regression analyses revealed a significant influence of cooperative games on enjoyment. We found also significant differences between groups regarding social relatedness and perceived competence. Preliminary mediation analyses indicated a mediating role of social relatedness and perceived competence on enjoyment.

In sum, cooperative games increased the perception of sport enjoyment in students. Participants in the intervention reported a higher feeling of social relatedness and a higher perceived competence in physical education class. Thus, cooperative games represent important factors for developing long lasting sport participation. Results indicate that systematically designed cooperative games should be implemented regularly in physical education to increase sports enjoyment.

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**SPIRITUALITY AND COPING: ATHLETES RECOVERING FROM CONCUSSION**

*Amanda Burri, Saint Paul Counselling and Psychotherapy Centre, Canada;*  
*Chantale Lussier, Elysian Insight, Canada*

Concussions are prevalent and increasingly recognized in today's society (Hall, 2015; Kryk, 2015). While there are several recovery guidelines available to athletes who have suffered a concussion, there is little to no literature that examines how one's spirituality may additionally support an athlete's recovery. An exploratory mixed methods study was conducted to examine what is known about spirituality, concussions, and athlete coping, and explore the potential relationship between these concepts. The study was interested in understanding if spirituality supports coping in athletes experiencing concussion. The purpose of this poster will be to present the quantitative data from the study. Fifty-three athletes (33 females and 19 males) aged 18 to 25 responded to an online survey comprised of The Spiritual Involvement and Beliefs Scale (Hatch, Burg, Naberhaus & Hellmich, 1998) and The Brief COPE Inventory (Carver, 1997). The quantitative data was analysed using SPSS Software. Preliminary results indicate a significant regression equation for the Brief COPE Inventory subscale religious coping,  $[F(1,50) = 52.418, p < .001]$  with an  $R^2$  of .512. Additionally, a significant difference in emotional coping, another Brief COPE Inventory subscale, was observed for males ( $M=4.42, SD=1.57$ ) and females ( $M=5.87, SD=1.98$ );  $t(50) = -2.718, p < .001$ . Noteworthy, ANOVA analyses indicated a significant difference in spirituality amongst sport groups at the  $p < .05$  level, which warranted a post hoc analysis. Post-Hoc analyses indicated that soccer was statistically different than all other sport groups ( $p < .05$ ). In conclusion, although spirituality does not predict coping in general, it does predict religious coping. Implications of this study warrant future research of spirituality as a meaningful coping strategy for athletes recovering from concussions in sport. In addition, these findings suggest that mental performance consultants ought to inquire with their athletes regarding spirituality as a potential coping strategy when dealing with concussions.

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**VALIDITY OF THE 10-ITEM CONNOR-DAVIDSON RESILIENCE SCALE FOR PREDICTING PERFORMANCE FOLLOWING FAILURE IN COMPETITIVE WEIGHTLIFTING**

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*Nick Galli, University of Utah, USA;*  
*Mark Otten, California State Northridge, USA;*  
*Stephen Gonzalez, SUNY Brockport, USA;*  
*Jason Miller, Oklahoma City University, USA*

Resilience has recently become a topic of interest among sport researchers (e.g., Galli & Gonzalez, 2015). However, the dynamic nature of sport environments makes assessing resilience difficult - especially in a competitive setting. Sport researchers have operationalized resilience in one of two ways: (a) a set of personal qualities, or (b) performance following failure in a lab setting. Regarding the former, the Connor-Davidson Resilience Scale (CD-RISC), and shorter CD-RISC-10, are the most commonly used self-report measures. However, the CD-RISC measures have been scrutinized for their appropriateness in sport settings. The purpose of this study was to assess the validity of the CD-

RISC-10 in predicting performance following failure in the context of an Olympic Weight-Lifting (OWL) competition. Competitive lifters are a prime population to study resilience since athletes receive multiple attempts on two lifts, there is little interference from outside factors during performance, and success and failure are easily defined (make or miss). Male and female OWL athletes ( $N = 116$ ) completed the CD-RISC-10 prior to competition. A binary logistic regression was used to examine whether scores on the CD-RISC-10 predicted lifting performance following a failed attempt. Results showed the CD-RISC-10 did not predict performance following failure in the snatch ( $b = -.071, p = .24$ ) or the clean and jerk ( $b = 0.05, p = .924$ ). In support of the reservations of Sarkar & Fletcher (2013), the CD-RISC-10 did not account for meaningful variance in resilient performance during competition. Resilience in sport is conceptualized as a dynamic and complex interaction between individual and environment; the CD-RISC-10 falls short in only measuring personal, trait-like qualities of resilience. Thus, future research should focus on creating sport-specific, self-report scales that capture the breadth and depth of resilience in sport.

**Tactical Populations**

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**A QUALITATIVE EXAMINATION OF SOURCES OF STRESS IN INTERNATIONAL REFEREES OF SOCCER, BASKETBALL, AND HANDBALL**

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*Yasuhisa Tachiya, Japan Institute of Sports Sciences, Japan*

Sport officials are responsible for ensuring that the competitive efforts of athletes take place within the rules of the game and that match results are obtained fairly. The role of referees in all sports fields has always been accompanied by stress and anxiety. Therefore, the purpose of the present study was to identify the sources of stress in international referees. Participants comprised eight elite referees representing three different sports (soccer, basketball, and handball). They were interviewed about the stress they experienced as international referees and asked to identify specific sources of stress. At the time of the interview, the average age of the participants was 41.1 years, with an average of 20.2 years of refereeing experience. An interview guide comprising a series of open-ended and guided questions was developed for this investigation. Eighty-two raw data themes were identified from the analysis of the interview data. These raw data responses were content analyzed; the three researchers discussed and came to a consensus on the grouping of the raw data responses, transforming them into meaningful subcategories and larger groupings. Dimensions of stress sources were identified, including interpersonal conflicts, fear of failure and mistakes, evaluation of performance, personal and technical performance, time demands, threats of verbal and physical abuse, and pressure of the game. Overall, the present investigation revealed that the referees included in the present sample experienced similar sources of stress to those reported by sport officials in previous research (Rainey, 1995; Voight, 2009). The research, both past and present, suggests that there are sport officials who are in need of help to relieve their stress, and psychologists have identified several stress management techniques that can be applied to these officials. The information gathered from this work also provides insight into the creation of better stress management programs for this population.

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**CIVILIAN TO SOLDIER MINDSET SHIFT: CONSULTING WITH 1,000 U.S. ARMY TRAINEES DURING 10-WEEK BASIC COMBAT TRAINING**

*Dylan Katz, Digital Consulting Services, USA;  
Trevia Anderson, R2, USA; David Williams, CSF2, USA*

Basic Combat Training (BCT) in the Army is a ten-week process to transform civilian volunteers into American Soldiers that live the Army values and function effectively in their first unit of assignment. Throughout the BCT cycle, trainees must successfully complete performances in order to graduate, which include the Army Physical Fitness Test (APFT), Rifle Marksmanship (RM), and more. A pilot program was conducted by one battalion to embed a Master Resilience Trainer – Performance Expert (MRT-PE) into the cycle to provide mental skills training to help optimize trainees’ (N=1,038) performances. The Conceptions of the Nature of Athletic Ability Questionnaire (CNAAQ-2) was used in the beginning, middle, and end of the cycle to determine which trainees leaned towards an entity (fixed) mindset about his/her ability as a Soldier. Research conducted by Dweck (2006) on fixed/growth mindset indicates that those with a fixed mindset believe their skills and abilities are static. Thus, trainees leaning towards a fixed mindset that experience failure early on tend to struggle to improve or reach their potential. With over 1,000 trainees in a battalion and only ten weeks, this data helped to narrow the focus by targeting individuals with a fixed mindset that may have inhibited them from applying effort and utilizing feedback, which are essential for a trainee to ultimately improve at basic soldiering skills. From the data at each collection point, trainees were identified to receive brief interventions conducted during pauses in field training events in continual support of an incremental mindset. This program serves as a benchmark for future embedded mental skills programs across the military and for sport organizations.

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**EXPLORING THE IMPACT OF CAREER TRANSITION ON ATHLETES AND MILITARY PERSONNEL: A MIXED METHODS STUDY**

*Sarah Shue, Indiana University Purdue University Indianapolis, USA;  
Dennis Watson, Indiana University Purdue University Indianapolis, USA;  
Marianne Matthias, Indiana University Purdue University Indianapolis, USA;  
Kristine Miller, Indiana University Purdue University Indianapolis, USA;  
Niki Munk, Indiana University Purdue University Indianapolis, USA*

Sport and exercise psychology practitioners work with military service members to enhance performance prior to and during active duty but have no clear role during military career exits. To determine sport and exercise psychology practitioner preparedness to address military to veteran transition needs, similarities and differences between transition experiences of former athletes and military veterans is needed.

A mixed methods study compared transition experiences of 42 athletes and 64 veterans (N=106) during the quantitative phase (QUANT) and 9 athletes and 15 veterans (N=24) during the qualitative phase (QUAL). QUANT - Independent sample t-tests were conducted to determine differences in outcome

scores for four valid and reliable measures: Satisfaction with Life Scale, World Health Organization’s abbreviated quality of life measure, Career Transition Inventory, and Patient Health Questionnaire Depression Scale. QUAL – Recorded semi-structured phone interviews regarding career transition experience.

Overall, athlete participants represented 14 sports from NCAA DI, II, III and NAIA universities. Veteran participants came from each military branch and a variety of pay grades. QUANT: Athlete and veteran participants scored similarly on each outcome measure or measure domain. Veteran participants had lower physical health and social relationship domain scores, but better career transition control scores than athletes. QUAL: Five themes emerged from analysis. 1) Aspects of one’s social relationships, personal characteristics, and career impacted the transition process, 2) transitioning out of a career equated to the loss of structure, 3) successful career transition definitions were individualized, 4) transitioning involved the establishment of a new self-definition, and 5) participants emphasized the necessity of preparation for the transition process.

Results indicate shared outcomes and perspectives between former athletes and veterans in regard to their career transition process. Transition process similarities indicate sport and exercise psychology practitioners may be qualified to effectively assist transitioning veterans in the same capacity they assist transitioning athletes.

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**Teaching**

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**CHANGING YOUR CONCUSSION CULTURE IN SPORTS**

*John Lacey, Saint Louis University, USA;  
Taylor Montgomery, Saint Louis University, USA;  
Ashley Hansen, Saint Louis University, USA;  
Michael Ross, Saint Louis University, USA*

Introduction: Concussion concealment is a growing concern in athletics (Rivara et al., 2014). Lack of awareness, mis-education, and attitudes embedded in sport culture contribute to concealment (Merz et al., 2017). The current presentation outlines the development and implementation of a multidisciplinary psycho-educational seminar to enhance awareness, problem identification and tangible strategies to promote concussion reporting in the context of sport culture. Methods: The authors presented the invited address for the Brain Injury Association of Missouri (BIA-MO) on how to improve concussion culture in high school sports. Following an initial meeting with BIA-MO leadership to assess the needs of attendees (i.e., coaches, school nurses, athletic trainers, athletic administrators), the literature on sport concussions in high school athletics was reviewed. Data on applicability of the presentation was collected from conference attendees and analyses will be completed by May 2018.

Implementation/Intervention: The keynote address included two components—(1) psycho-education regarding concussion symptoms and reporting specific to high school athletes, and (2) actionable steps for attendees on how to change current cultural practices. An acronym (PLAY HARD) was utilized to outline the following actionable steps: Promote learning and awareness; Language of concussion; Awareness always; Your attitude matters; encourage Honesty; Active prevention and care; be a Role model; and Develop appropriate policies and procedures. More detailed descriptions of these interventions

are available from the authors. Discussion: Sport psychology consultants have a unique understanding of processes that underlie concussion concealment (e.g., over conformity to the sport ethic, pain principle; Kerr et al., 2014; Sabo, 1998). The presentation demonstrated the process by which sport psychology consultants can establish collaborations (e.g., coaches, health care providers) to address sport norms and athlete well-being by improving concussion reporting.

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### COUBERTIN'S CORNER: USING KAHOOT! AS AN ALTERNATIVE ONLINE QUIZZING REVIEW TOOL

*Alisha Sink, University of Southern Mississippi, USA;  
Robert Hilliard, West Virginia University, USA*

Online quizzing technology is a common method of instruction in college classrooms, but the use of traditional i-clickers is expensive for students. The purpose of this presentation is to introduce and explain the beneficial and effective use of one particular free online quizzing program, Kahoot! ([www.getkahoot.com](http://www.getkahoot.com)), to those interested in an alternative instructional tool. Using Kahoot! allows for the inclusion of several pedagogical concepts found to improve student learning. The first of these is interleaved practice, or studying material from multiple lectures in one setting (Blasiman, 2017). Kahoot! allows for this type of practice as questions can cover a variety of topics on the same quiz. Further, the testing effect has found that individuals learn better in the long term from repeated testing of material compared to simply studying the information (Roediger & Darpicke, 2006). To this extent, Kahoot!, and systems similar to it, can provide a fun and engaging testing atmosphere because of its multiple choice format. Additionally, it creates a low-stakes formative assessment opportunity that provides helpful information to instructors in shaping learning, allows for dialogue around learning, and offers an opportunity for students to reflect on their learning (Kerrigan, 2018; Nichol & Macfarlane-Dick, 2006). Specifically, instructors can expand on and clarify the responses to difficult questions while engaging in a discussion about why other response options are correct or incorrect. Thus, Kahoot! is a multifaceted program that can be used to increase engagement in the classroom (Plump & LaRosa, 2017), and in our experience, students often report enjoying the activity and finding it to be a helpful study tool. Overall, this presentation will: 1) describe the layout and required setup for Kahoot!, 2) analyze strengths and weaknesses of using Kahoot!, and 3) provide best practice recommendations for effective use of Kahoot! as a review tool.

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### DEVELOPMENT OF LABORATORY ACTIVITIES FOR AN UNDERGRADUATE SPORT AND EXERCISE PSYCHOLOGY COURSE FOR KINESIOLOGY MAJORS

*Francesca Principe, University of Minnesota, USA;  
Diane Wiese-Bjornstal, University of Minnesota, USA;  
Kristin Wood, University Of Minnesota, Minneapolis, USA;  
Andrew White, Hiram College, USA;  
Joseph Kronzer, University of Minnesota, Twin Cities, USA*

The purpose of this presentation is to discuss the development of active learning laboratory activities for undergraduate kinesiology majors completing a required sport and exercise psychology course. Laboratory sessions are held for one hour per week in groups of 16 students, as one component of a larger lecture course of 80 students. Current laboratory

activities provide an in-depth exploration of topics such as the sport and exercise psychology foundations, personality, imagery, goal setting, competition and cooperation, Wii-habilitation, attributions, exercise motivation, arousal and anxiety, biofeedback, modeling and demonstrations, and attention. To engage students, we have created interactive labs such as writing, editing, and performing imagery scripts, playing Mario Kart as a means of understanding attributions, competing at mini-golf to note the effects of anxiety and arousal on performance, experimenting with various biofeedback devices, and engaging with Nintendo Wii games to teach motivational approaches to rehabilitation. Discussions with graduate student lab leaders facilitate the students' opportunities to connect these laboratory experiences to the knowledge bases learned through lectures as well as to their intended careers such as sport coach, athletic trainer, physical or occupational therapist, and personal trainer. Internal technology grants applying for monies from student technology fees have provided the financial support for equipment purchases. Throughout the lab reports, students write about what they learned from doing the labs, draw connections between lecture, lab, and readings, ask further questions relative to what aspects of the topics they would like to learn more about, and share thoughts on the importance of the topics to their intended careers. Our experiences in creating and teaching these labs have shown us that students enjoy doing these hands-on activities and believe that they create opportunities to see the relevance of sport and exercise psychology to real-world applications.

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### PSYCHOLOGY OF SPORT INJURY AND REHABILITATION: A TEACHING GUIDE

*Megan Granquist, University of La Verne, USA*

This presentation will share overviews, recommended readings, and applied activities for eleven topics in a "Psychology of Sport Injury and Rehabilitation" course designed for undergraduate students. This course, refined and taught over ten years, examines the theory and research of psychological factors and intervention strategies related to sport injury risk, response to injury, and rehabilitation. Further, this course introduces mental skills interventions that may reduce sport injury risk and enhance rehabilitation. Recommended for students interested in the areas of sports science, coaching, sports healthcare and/or physical education, student course objectives include: a) understand psychological factors influencing sport injury risk, b) understand psychological responses to sport injury, c) analyze the biopsychosocial aspects of sport injury rehabilitation, d) apply psychology of sport injury knowledge to sport settings to reduce injury risk, e) apply psychology of sport rehabilitation knowledge to enhance sport injury rehabilitation and recovery.

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### SELF-CONTROLLED USE OF VIDEO FEEDBACK IN A CLASSROOM SETTING BY RECREATIONAL RUNNERS

*David Laughlin, Grand Valley State University, USA;  
Megan Eisses, Grand Valley State University, USA;  
Olivia Keeley, Grand Valley State University, USA;  
Cassie Esch, Grand Valley State University, USA*

Although self-controlled video feedback enhances motor learning & self-efficacy in experimental settings (Bund & Wiemeyer, 2004; Post et al., 2016), little research has

addressed its application in field settings. Many universities offer physical education activity courses, which provide an ideal opportunity to examine whether self-control findings translate to real-world application. The purpose of this study was to examine whether self-controlled video feedback would help recreational runners in a university physical education course improve their running technique. The study also examined use of video feedback, self-efficacy, and participant goals and strategies. Participants (N = 13) were enrolled in a 7-week physical education course designed to help students train for a 5k road race. During the first and last week of the course, students were filmed from the sagittal plane and completed self-efficacy questionnaires. After the final class, students were asked about their use of feedback, goals, and strategies. In between filming sessions, students were given information about key components of technique (Pipkin et al. 2016) and presented with the freeze frames of their own running form. Students had access to self-controlled split-screen video feedback through a tablet-based computer application (i.e. Hudl Technique) during the subsequent two class meetings. Visual inspection of data indicated that participants were only able to make changes to one key component (i.e. foot strike pattern), with sagittal screenshots of foot-strike patterns showing 42% improvement among participants. Self-efficacy scores did not change significantly throughout the study ( $p = 0.23$ ). Consistent with previous research, students requested feedback after both good and bad performance (Laughlin et al. 2015). These findings show that, although self-controlled video feedback can be used in a field setting, translating experimental findings to a classroom setting may require additional student instruction on using video feedback effectively.

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### THE BENEFITS OF CREATING A CARING AND TASK-INVOLVING CLIMATE IN A SPORT & EXERCISE PSYCHOLOGY CLASS FOR AN INJURED DIVISION I STUDENT-ATHLETE

*Troy Wineinger, University of Kansas, USA;*  
*Mary Fry, University of Kansas, USA*

This paper describes how students can benefit when instructors of sport and exercise psychology courses create caring/task-involving climates (Fry & Moore, 2018; Roberts, 2013) within their classrooms. Specifically, the paper highlights the experience of one student who transferred to a Division I school for athletics, and two days later sustained an injury that ended his college athletic career. The student had to transition into a new phase of life where his role as athlete was no longer the central focus. The student benefited from efforts made within the sport and exercise psychology division of his academic department to assist students in exploring their passion, connecting with faculty and students, and striving to find their professional path. Within this presentation, the instructor will share how features of the caring/task-involving climate were emphasized within the class, with the student, in turn, describing how the features were particularly key for him in coping with his injury and loss of sport in his life, focusing on the next phase of his life, and coming to the realization that he could help others in his development as a health professional. For the student, the ability to get to know students in the course through team building activities, and small group activities/discussion helped him connect with other students and form bonds more quickly than what he had experienced in previous courses. Further, the ability to adapt assignments to his interests/circumstances (e.g., changing an assignment topic from weight bias to disability bias) was

key for his enhanced engagement (i.e., effort, improvement) in the course. The student and instructor take turns in this presentation sharing their perceptions of how students can benefit from intentional efforts by college academic programs to create caring/task-involving climates for students.

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### THE VALUE OF SPORT AND EXERCISE PSYCHOLOGY AS SCIENCE: THE ATTITUDE OF UNDERGRADUATE STUDENTS TOWARDS TO THE FIELD AND PROFESSION

*Alessandro Quartiroli, University of Wisconsin - La Crosse, USA;*  
*Austin Watzka, UW - La Crosse, USA;*  
*Logan Mallek, UW - La Crosse, USA;*  
*Teresa Hepler, UW - La Crosse, USA*

Sports and exercise psychology (SEP) is an interdisciplinary field that can widely contribute to the academic and professional readiness of future professionals in psychology, exercise science, and other human performance domains (Ohuruogu, 2016; Stanley & Robbins, 2015). However, relatively few higher education institutions offer formal programs of study in SEP at the undergraduate level (Stanley & Robbins, 2015). This study aimed to explore the perceived value and interest that UG students at a mid-size Midwestern university have of SEP. Specifically the aims of the study are: (1) to explore they understand SEP as a discipline; (2) to understand how important they value SEP as part of their overall education; and (3) to assess their interest in a formal program of study in SEP. During the Spring 2018 semester, all UG students majoring in psychology, exercise science, or therapeutic recreation (n =2207) were invited to participate in an online survey. Approximately 450 (21% Response Rate) students completed the survey (74.4% female). Participants reported a low-to-average previous knowledge of SEP (M=31.75; SD= 20.96) and close to no-experience with applied SEP (M=1.15; SD=.484). Specifically, only 17.6% of the sample indicated that they had taken a course in SEP (14.7%) and/or attended an SEP workshops or clinic (2.9%). Despite their lack of knowledge of and experience with SEP, participants expressed a desire for SEP-specific courses (M=74.75; SD=66.80) and structured program of study (M=58.41; SD=32.60). For instance, 62.6% of these students indicated that, given the opportunity, they would have been interested (30.2%) or very interested (32.4%) in completing an interdisciplinary minor in SEP. Moreover, participants perceived SEP knowledge fairly useful (M=72; SD=24) and potentially applicable to their future profession (M=69; SD=24.5). Further results will be presented and described aiming to support the development and maintenance of interdisciplinary SEP courses and programs at the UG level.

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### Youth Sport

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### AN EXAMINATION OF ATHLETE LEADERSHIP WITHIN COMPETITIVE FEMALE YOUTH SOCCER TEAMS: A SOCIAL NETWORK APPROACH

*Ashley Duguay, University of Windsor, Canada;*  
*Todd Loughhead, University of Windsor, Canada;*  
*James Cook, University of Maine at Augusta, USA*

Researchers have shown that multiple team members partake in a team's leadership processes through both formal and informal athlete leadership roles (e.g., Fransen, Vanbeselaere, De Cuyper, Vande Broek, & Boen, 2014; Loughhead, Hardy, &



Eys, 2006). These findings lend support to the view that athlete leadership is a shared process (Cotterill & Franssen, 2016; Loughead, 2017). To more accurately reflect the relational nature of shared leadership, it has been suggested that researchers consider adopting social network perspectives (Denis, Langley, & Sergi, 2012). Accordingly, the purpose of the present study was to use Social Network Analysis (SNA) to examine athlete leadership across multiple levels (e.g., team, individual) within four competitive female youth soccer teams ( $N = 68$ ;  $Mage = 16.24$ ;  $SD = 0.83$ ) using both visual (i.e., sociograms) and quantitative (i.e., degree centrality, density, degree centralization, and multiple regression quadratic assignment procedures [MR-QAP]) methods. Findings demonstrated that each team's leadership network reflected a shared process where all teammates (i.e., formal athlete leaders, informal athlete leaders, and athletes who did not identify as an athlete leader) were looked to for leadership by at least one of their teammates. Furthermore, it was shown that skill nomination and formal leadership status were significant predictors of how often participants reported looking to their teammates for leadership. The results of the current study expanded upon previous sport research by using both visual and quantitative SNA methods to test hypotheses in relation to athlete leadership. They also demonstrated the usefulness of using SNA to determine the strengths and disruptions in a team's athlete leadership network. Such data may be used to more accurately address athlete leadership development efforts at the individual and team level.

## 228

### AN INNOVATIVE PROGRAM TO HELP COACHES AND TEACHERS FACILITATE THE LEARNING AND TRANSFER OF LIFE SKILLS IN THE SCHOOL SPORT SETTING

*Roxane Carriere, Université Laval, Canada;*  
*Christiane Trottier, Université Laval, Canada;*  
*Martin Camiré, University of Ottawa, Canada;*  
*Vicky Drapeau, Université Laval, Canada;*  
*Claude Goulet, Université Laval, Canada;*  
*Pierre-Nicolas Lemyre, Norwegian School of Sport Sciences, Norway;*  
*Éric Frenette, Université Laval, Canada*

In the school sport setting, coaches play an influential role in coaching student-athletes life skills that can be learned through sport and subsequently transferred to the school setting. To facilitate transfer, coaches have to work closely with teachers to integrate specific strategies. In our longitudinal participatory action research study, a life skills training program is currently implemented in one high school to improve the teaching and transfer of life skills by coaches and teachers. For every life skill (i.e., goal setting, concentration, healthy eating habits, recovery, and safety in sport) included in the program, educational activities and tools are designed using the constructivist learning model proposed by Trudel, Culver, and Werthner (2013). Therefore, the aim of this presentation is to explain how the model is used to frame the different learning activities designed to help coaches and teachers ensure the learning and transferability of these skills. According to Trudel et al., coaches and teachers learn through three types of learning situations: mediated, unmediated, and internal. In mediated learning situations (e.g., courses, workshops), the content to be learned is decided upon by somebody else. In unmediated learning situations (e.g., peers, websites), the learner is responsible for deciding the content to consult. Finally, in internal learning situations (e.g., journal, reflective cards), the learner reflects on their knowledge

content through "cognitive housekeeping". Following are some concrete examples of the conception of our program. For each life skill, we have: (a) practical in-person workshops and videos (mediated), (b) an online forum for coaches and teachers to exchange ideas (unmediated), and (c) reflective cards to help coaches and teachers reflects on how they teach and facilitate the transfer of life skills (internal). By focusing on the complementarity of the three types of learning situations, innovative interventions can be put forward.

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### COACHING LIFE SKILLS THROUGH YOUTH SPORT IN SOUTHERN AFRICA

*Zenzi Huysmans, West Virginia University, USA;*  
*Damien Clement, West Virginia University, USA;*  
*Robert Hilliard, West Virginia University, USA;*  
*Adam Hansell, West Virginia University, USA*

As gatekeepers of the youth sport experience, coaches are in a unique position to positively impact the lives of youth athletes. Moreover, coaches can help athletes develop personally and emotionally, and facilitate the learning of life skills (Collins et al., 2009). Although research has shown the meaningful role of youth sport coaches in life skills development in Western contexts, limited exploration of this topic has taken place in non-Western regions (Whitley, Wright, & Gould, 2016). To further examine this topic, nine coaches (7 males, 2 females) in Swaziland participated in semi-structured interviews exploring their coaching philosophies, desired athlete outcomes, and coaching pedagogies. Coaches were recruited through purposive and snowball sampling techniques. Thematic analysis revealed that although most coaches did not have any formal training in fostering life skills and positive developmental outcomes through sport participation, and had difficulty articulating a coaching philosophy, they valued developing both the athlete and the person. Coaches focused on teaching a range of life skills such as self-discipline, self-regulation, group skills, and values. The main strategy that coaches employed to develop life skills was discussion. Other strategies included providing opportunities to build skills through problem-solving or captaincy roles and modelling appropriate behaviors through creating respectful and empowering coach-athlete relationships. The results of this study support the role of coaches as facilitators of life skills learning in youth in Swaziland and expanded the literature from previous South African (Whitley, Hayden, & Gould, 2016; Whitley, Wright, & Gould, 2016) and North American (Holt et al., 2017) studies. Given the value of coach education in developing coaches who can effectively deliver life skills programming, future applied and research efforts should focus on designing cost-effective formal coach programming. These programs could focus on teaching coaches how to build caring coach-athlete relationships and intentionally facilitate life skills learning in youth.

## 230

### COMMITMENT IN SPORT: THE ROLE OF COACHING STYLE AND MOTIVATION

*Liam O'Neil, University of Otago, New Zealand;*  
*Ken Hodge, University of Otago, New Zealand*

The purpose of this study was to examine the relationships amongst motivational factors (coaching style; autonomous and controlled motivation), sport commitment (enthusiastic

and constrained), and intention to persist/continue in sport. A theoretically-driven integrative analysis employing partial least squares structural equation modelling was conducted with competitive football/soccer players ( $n = 154$ ;  $M = 22.21$  yrs). Results revealed that autonomous motivation was positively associated with enthusiastic commitment (path estimate = .61), which, in turn, was positively associated with intention to persist/continue (path estimate = .53). Controlled motivation was positively associated with constrained commitment (path estimate = .38), which, in turn, was negatively associated with intention to persist/continue (path estimate = -.16). In addition, enthusiastic commitment was shown to fully mediate the relationship between autonomous motivation and intention to persist/continue in sport. Overall, these findings highlight the importance of considering both commitment and motivation variables in explaining athletes' intention to persist/continue in sport. Adopting a scientist-practitioner approach, practical recommendations are offered for coaches and sport psychology practitioners wishing to strengthen athletes' commitment to their sport.

### 231

#### EXPLORING YOUTH HOCKEY GOALIES' BENCHING EXPERIENCES

*Anthony Battaglia, University of Toronto, Canada;*  
*Gretchen Kerr, University of Toronto, Canada;*  
*Ashley Stirling, University of Toronto, Canada*

Anecdotal evidence suggests that youth may experience negative outcomes when benched, such as a lack of fun and intentions to quit (Frank, 2013; O' Sullivan, 2015). In the sport of ice hockey, it is speculated that amongst position players, including goalies, forwards, and defenders, the negative effects of benching may be exacerbated for goaltenders, presumably due to the public manner in which the benching takes place in response to poor performance (Hertz, 2010, 2013). The purpose of this study therefore was to examine competitive youth ice hockey goalies' experiences of benching as a result of not playing well during a game. Data were collected through semi-structured interviews of seven male competitive youth ice hockey goalies between the ages of 13-15 years. Data were analyzed using a thematic narrative approach (Riessman, 2008; Smith, 2016). Participant stories suggest that benching can be detrimental to an athlete's feeling of self-worth and relations with coaches and teammates when experienced as a form of punishment. Across all of the goalies' stories, they articulated notions of feeling like an outcast on their team after experiencing benching. Four overarching narratives were developed from their stories: the skate of shame, the banished bench, the lonely locker room, and the silent celebration. Findings are interpreted according to the time-out literature (AAIMHI, 2009; Gartrell, 2001; Schreiber, 1999). This study advances current youth sport literature as it is the first to examine youth athletes' benching experiences, empirically. Implications for the use of positive disciplinary coaching strategies as well as recommendations for future research are proposed.

### 232

#### INFLUENCE OF PARTICIPATION IN MENTAL TRAINING ON ACADEMIC PERFORMANCE OF YOUTH SWIMMERS

*Zuzanna Gazdowska, SWPS University of Social Sciences and Humanities, Poland;*  
*Dariusz Parzelski, SWPS University of Social Sciences and Humanities, Poland;*  
*Izabela Krejtz, SWPS University of Social Sciences and Humanities, Poland*

Currently, most of available literature confirms the positive influence of mental training (MT) on sport results and on life skills of the participants (Hanrahan, 2018; Sharp et al., 2013). One of the potential benefits of improving mental skills may be the possible increase of efficiency of studying, which in turn might result in better school grades. Studies (Taylor & Orlick, 2004; Tremayne & Tremayne, 2004) claim that teaching school children relaxation techniques, goal setting, and how to manage stress, leads to higher level of self-confidence, happiness, and physical fitness. However there seems to be no clear evidence if implementation of sport-based MT and teaching mental skills would have any influence on young athletes' academic performance. Ninety Polish youth swimmers, aged 13-18, participated in this intervention study. They were equally divided into two experimental groups (EG1 & EG2) and one control group (CG). EG1 participated in four live MT workshops, while EG2 participated in an on-line MT program. Both interventions were held over a one-month period. Both programs included the same content, only the delivery form was different. Swimmers were learning about ways of improving own motivation, concentration, self-confidence, and coping with stress. The aim of the intervention was to examine whether participation in MT would affect swimmers' academic performance, and whether the form of MT would mediate the relationship in any way. All the criterion variables were assessed four times, beginning with a baseline measure prior to the intervention, second measurement after the end of workshops and closing of the on-line platform. Two more measurements were conducted in three-month intervals. A significant improvement of school grades has been noted in both EG1 and EG2. No significant changes have occurred in the passive CG. The results support the assumption, that improvement of sport-specific mental skills, affects the athletes' academic performance positively.

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#### POSTER WITHDRAWN

### 234

#### NOTHING BUT NET: EXPERIENCING FLOW AND GOAL ORIENTATIONS OF ACADEMICALLY GIFTED HIGH SCHOOL STUDENTS ON THE BASKETBALL COURT

*Emily Heller, Waubensee Community College, USA;*  
*Darryl Tyndorf, Aurora University, USA;*  
*Todd Gilson, Northern Illinois University, USA*

The flow experience is a psychological state of operation related to the highest level of happiness, having an intense focus, and being fully energized when participating in a specific activity. During the optimal state of flow, one's best performance can take place (Hektner, Schmidt, & Csikszentmihalyi, 2007). Most research has focused on the academic setting of gifted students due to the populations deeper thought process (Csikszentmihalyi, 2007; Park,

Callahan, & Ryoo, 2016). An area less explored with gifted students and their flow experience, is athletics. Therefore, the purpose of this study was to identify flow experiences gifted students report while practicing their sport over a timespan of two weeks with respect to their goal orientations.

Engaging a quantitative time-series methodological approach, this research utilized a Task and Ego Sport Questionnaire (TEOSQ) survey, similar to an Experience Sampling Method (ESM analysis), to identify student-athlete goal orientations and flow states of 21 gifted male and female high school varsity athletes living in a residential institution for gifted students. The sample of students were repeatedly and randomly interrupted, during shooting practice, game play, or drills during basketball practice.

Research suggests that gifted students are more likely to be ego oriented than task oriented (Clinkenbeard, 2012) and our findings support the current literature that gifted students are more ego-oriented, overall and by gender ( $p < .05$ ), suggesting higher states of flow during focused activities. However, during specific type of basketball activities there was no significant impact on reported flow experiences. In addition, neither gender nor race impacted their ability to achieve a flow state. One conclusion drawn for gifted athletes surveyed in this study is since there was a propensity of ego-oriented athletes, this population of athletes participates in basketball because they value the outcome of playing basketball rather than the enjoyment derived from playing.

### 235

#### TESTING A COPING INTERVENTION AMONG HIGH PERFORMANCE YOUTH SOCCER PLAYERS AND PARENTS

*Katherine Tamminen, University of Toronto, Canada;*  
*Courtney Braun, University of Toronto, Canada*

This study tested a coping intervention among 50 male adolescent athletes ( $M = 12.96$  years) with supplementary information delivered to their parents ( $n = 22$  mothers, 28 fathers,  $M = 43.27$  years) at a high performance soccer academy. The five-week intervention consisted of presentations and four weeks of online activities. All athletes received a presentation containing information on coping with stress in sport. Parents were assigned to one of two groups: the intervention group received information about coping with stress and parental involvement in sport, while the control group received information about sport participation and long term athlete development. Participants were sent online activities to complete for four weeks following the presentations. Athletes' perceived stress, coping self-efficacy (CSE), sport competence, parental autonomy support and pressure were assessed at baseline (T1) and again following the five-week intervention (T2). The results of the intervention were mixed: some athletes reported improvements while others reported decreases in perceived stress, CSE, autonomy support, and parental pressure. Repeated measures ANOVAs showed a significant effect for Time on athletes' decreasing autonomy support and perceived competence from T1 to T2. Regression analyses indicated that higher CSE and lower parental pressure were associated with lower athlete stress at T2. Autonomy support was associated with greater CSE, and sport competence was associated with greater autonomy support and CSE at T2. The delivery of a coping intervention to this sample of athletes and parents was not effective in improving athlete outcomes. Limitations include the timing of the intervention (mid- to late-season), ceiling

effects for athletes' scores on outcome variables, and low participant engagement with online activities. Suggestions for future interventions include using multiple in-person sessions instead of online activities, delivering the intervention early in the season, and integrating information into practices so athletes can incorporate coping skills in on-field situations.

### 236

#### THE 5 CS APPROACH TO REDESIGNING A YOUTH SOCCER ACADEMY AND PROMOTING POSITIVE DEVELOPMENT

*Anna Farello, Ball State University, USA;*  
*Mariah Sullivan, Ball State University, USA;*  
*Katie Califano, Ball State University, USA;*  
*Thomas Gretton, Ball State University, USA;*  
*Ali Kanan, Ball State University, USA; Matt Moore, Ball State University, USA;*  
*Lindsey Blom, Ball State University, USA*

Youth sports programs across the United States are currently facing challenges that put competitive league participants at risk of not reaping the assumed benefits of participation, such as individual and community development (Coakley, 2015). Although it is commonly assumed youth sport participation is inherently good and will lead to positive outcomes (i.e., the Great Sport Myth; Coakley, 2015), youth sports programs must intentionally promote development and life skills through a deliberately structured program for the desired outcomes of youth sport participation to occur. Furthermore, the amount of youth regularly participating in team sports decreased over the past decade, with an almost 5% loss from 2011 to 2016 (The Aspen Institute Project Play, 2017). In soccer specifically, about one fourth of youth players leave the sport each year (Møllerlökken, Lorås, & Pedersen, 2015). Possible reasons for these participation decreases include increased pressure, time commitment, and injury, as well as lack of training for youth coaches (Perry, 2013; Pittman et al., 2003). Researchers and practitioners are not alone in concern about these trends; youth sport league administrators are noticing, seeking assistance, and making adjustment. Together these groups can make systematic, long-term positive change. This presentation will overview a suburban youth soccer organization seeking to be more holistically focused on youth development. Together, league administrators, faculty, and students identified the 5 C's of Positive Youth Development model (Lerner et al., 2005) as a theoretical basis for restructuring the program, with McCarthy and colleagues' (2016) guidelines for sport system redesign. Presenters will share the program development process, use of theoretical framework, next steps, and lessons learned.

### 237

#### THE INFLUENCE OF FAMILY AND COACHES ON VALUE SYSTEM DEVELOPMENT IN DIVISION I FOOTBALL AND BASKETBALL ATHLETES

*Ashley Samson, California State University, Northridge, USA;*  
*Taylor Russo, California State University, Northridge, USA*

During youth sport experiences, personal ideals and values are shaped by parents and coaches, which can influence how athletes view the role of sport in their lives and where it is prioritized in relation to education, particularly if that sport has potential to provide for them in the future (i.e. college scholarships). This phenomenological study focused on the creation of personal value systems as related to sport

involvement in ten collegiate football and basketball athletes who participated in interviews with questions focused on experiences in sport as a child and on the values instilled in them by parents and coaches.

Analyses of interview data revealed that parents and coaches' values greatly influenced the values created by the athletes. If parental support correlated with successes in sport, athletes developed a negative relationship with how they identified themselves with sport; however, if parents displayed continuous support that was not outcome-based, athletes were able to separate their self-worth from sport performance. Regarding coaches, if they created an environment focused on winning at all costs, athletes reported valuing their sport over education, subsequently choosing their college based on athletics and not academics, and academics seemed to suffer as they faced hardships in their sport. Conversely, if coaches focused on skill mastery, as well as being successful; the athletes were more intrinsically motivated in both athletics and academics, and seemed to keep them independent of each other if they face a setback in sport. In summary, the results of this investigation provide several practical implications regarding the influence of parents and coaches in the process of value development of youth athletes. These implications and guidelines will be shared with audience members to help ensure that our current youth athletes have the benefits of experiences that influence more positive and adaptive value system development.

## 238

### TOWARD AN UNDERSTANDING OF PASSION, PERFECTIONISM, AND ATHLETIC IDENTITY IN INDIVIDUAL, AESTHETIC SPORT ATHLETES

*Taryn Brandt, Lehigh University Counseling Center, USA*

Vallerand et al. (2003) suggested that passions become central features of an athlete's identity and self-definition, allowing them to persevere and achieve high levels of success. Athletes in aesthetic sports often begin their quest for athletic success at an early age (Cote & Fraser-Thomas, 2008). Relations among passion, identity, and perfectionism are intriguing as they relate to people's development and future success as athletes, especially as passion and perfectionism are themes valued in the pinnacle event of many sports (Gould et al., 2002). A mixed-methods research design was used to investigate the relations among passion, perfectionism, and athletic identity in aesthetic, individual sport athletes. It was hypothesized that higher levels of athletic identity and perfectionism together would predict higher levels of obsessive passion. Participants were 151 female figure skaters, gymnasts, divers, and dancers. Participants completed the Multidimensional Perfectionism Scale (MPS), the Passion Scale (PS), the Athletic Identity Measurement Scale (AIMS), and a demographic questionnaire. Athletic identity was positively associated with obsessive passion. Narrative interviews of 10 participants yielded the following seven themes: seeking perfection, start them young, living and breathing sport, prominence of athletic identity, coping

with injury, the importance of relationships within sport, and the "dark side" of sport participation. Participants' accounts suggested the development of athletic identity, perfectionism, and obsessive passion is heavily influenced by financial and time investment, early specialization, and parental involvement. Negative consequences of maladaptive patterns of athletic identity, perfectionism, and obsessive passion could include chronic injury, burnout/overtraining, eating disorders, and difficulty coping with injury, loss of sport or transition out of sport. The current study can provide information to coaches to help raise their awareness of problematic behaviors among their athletes and to encourage a balanced training regimen, exploration of identities and activities outside of sport, and positive social relationships within the sport environment

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### UNDERSTANDING HOW PARENTS INFLUENCE CHILDREN'S ENJOYMENT IN SPORT

*Maita Furusa, Swansea University, UK;  
Camilla Knight, Swansea University, UK;  
Denise Hill, University of Portsmouth, UK*

Parents play important roles in children's sporting experiences. However, while our understanding of the types of involvement adolescent athletes want from their parents is increasing, limited attention has been given to children (i.e. aged 12 years and younger). The purpose of this study was to explore children's perceptions of their parent's involvement in sport and what effect it has on their overall enjoyment. Twenty-six children (ages 8-12 years, M age = 9.23) involved in golf, swimming, football, gymnastics, and tennis, participated in focus groups. The focus groups were analysed using thematic analysis. The results demonstrated that parental involvement influenced children's enjoyment and children had specific ideas about how they would like their parents to be involved at home, training, and competitions. Across all three settings however, there were three main themes that emerged. Firstly, children articulated the importance of their parents having knowledge and understanding of their sport. Particularly, understanding the demands they experience in their sport. With such understanding, children perceived that parents would be better positioned to provide them with effective support. Secondly, children also indicated the importance of parents facilitating and providing opportunities (e.g., equipment) and to optimize their preparation in the lead up to training and competitions. Thirdly, children highlighted the need for parents to recognize them as children beyond their sport. For example, children mentioned wanting normality outside of sport and autonomy over activities they are engaged in. Overall the findings highlight the range of ways in which parents can impact on children's sporting experiences, both through their involvement in and beyond sport settings. Further, the results highlight the importance of engaging with children to understand what they want from their parents to enable us to best guide parents' involvement and ensure children have access to enjoyable experiences.

Keywords: youth sport, parents, enjoyment, support

## SYMPOSIA

### SYM-01

#### KNOW BEFORE YOU GO: ASSESSMENT IN SPORT PSYCH CONSULTING

*Erin Haugen, Assessment and Therapy Associates of Grand Forks, PLLC, USA;*

*Jim Taylor, Dr. Jim Taylor, USA;*

*Tim Herzog, Reaching Ahead Counseling and Mental Performance, USA;*

*Graig Chow, Florida State University, USA;*

*Brandon Orr, University of Missouri, USA*

Assessment is the foundation of effective sport psychology consulting; it provides sport psychology professionals with a clear understanding of a client (Taylor, 2017). Whether working with individuals or teams, assessment guides optimal decision-making for subsequent intervention (Kaheman, Lovallo, & Sibony, 2011). Conventional wisdom is that assessment involves objective inventories or interviewing. Although helpful to an extent, this narrower view of assessment inhibits consultants from capitalizing on an array of available data that can significantly deepen and broaden consultants' conceptualization of their clients, making available a larger set of more appropriate interventions available. Thus, it is important for consultants to have a wide range of tools at their disposal to best understand athletes and the systems in which they operate for effective interventions.

In this symposium the presenters will do the following: (1) introduce an expansive view of assessment in sport psychology using five categories of assessment tools; (2) describe rationale and benefits of each type of assessment; (3) examine contexts for which each assessment can be used; and (4) help attendees understand how to utilize assessment information for more effective sport psychology interventions. The first presentation will discuss sport-specific objective inventories offering the greatest utility for consultants working with athletes across contexts. The second presentation will explore how consultants can best leverage the interviewing process to maximize its value with athletes. The third presentation will discuss biofeedback and ways it can be utilized to help athletes tangibly measure baseline stress and the development of stress management skills. The fourth presentation will explore the guiding principles of contextual intelligence, and how this framework can be applied in using observational techniques. The final presentation will discuss screening measures for the most prevalent mental health conditions in athletes and how consultants can incorporate them into their consulting practices within their areas of competency.

### SYM-01A

#### INVENTORIES: USING OBJECTIVE MEASURES

*Graig Chow, Florida State University, USA*

Objective, sport-specific inventories are an essential component of effective sport psychology consultation (Chow & Gilson, 2017; Silva, Metzler, and Lerner, 2011). Objective, sport-specific inventories are an essential component of effective sport psychology consultation (Chow & Gilson, 2017; Silva, Metzler, and Lerner, 2011). Among the

constellation of assessments available, results derived from objective measures are particularly beneficial for formulating case conceptualization and guiding intervention selection and implementation. Additionally, sport-specific inventories can be used to assess clients' psychological strengths and weaknesses, monitor progress toward goal attainment, and evaluate the effectiveness of consultation and interventions (Weinberg & Williams, 2010). Used in conjunction with other assessment methods, such as interview and observation, objective measures provide a more accurate and in-depth understanding of what is achievable for the athlete. This presentation will discuss sport-specific inventories that offer the greatest utility for consultants working with athlete clients across contexts. For instance, objective measures that are useful to employ in initial sessions with athletes to assess their motivational readiness to engage in sport psychology services will be described; these assessments assist in identifying and addressing barriers as well as tailoring appropriate interventions. Inventories that assess important psychological constructs (e.g., motivation, confidence, emotion, concentration, commitment, and burnout), skills, and techniques will also be presented. Considering the importance of practical aspects of administering assessments, including convenience and time constraints, brief measures will be discussed. Attendees will develop an enhanced understanding of how to select and use appropriate objective, sport-specific inventories in their applied work including interpretation of scores, plus strategies for managing unique challenges associated with objective assessment.

### SYM-01B

#### GATHERING DATA THROUGH INTERVIEWING

*Jim Taylor, Dr. Jim Taylor, USA*

There are many assessment tools to assist consultants in understanding their clients and identifying a wide range of psychological, emotional, behavioral, psychophysiological, and performance challenges that they may face (Cormier & Cormier, 1991; Taylor, Simpson, & Brutus, 2017). While these methodologies are effective in providing information about specific psychological constructs (e.g., motivation, confidence) and clinical issues (e.g., depression, eating disorders), they limit athletes' responses to the parameters of the questions being asked, the behaviors being observed, and the psychophysiological reactions being measured (Meyer, et al., 2001). Many consultants believe that interviewing should be a primary form of information gathering and should be used in conjunction with other assessment tools to maximize the value they bring to their clients (Rosqvist, Björqvinnsson, & Davidson, 2007). Furthermore, it is suggested that interviewing can be the foundation for all consulting practices because consultants will learn the most about their clients' performance difficulties and obtain critical information needed for the development of effective intervention plans during the interviewing process. This segment of the symposium will explore how consultants can best leverage the interviewing process to maximize its value to their work with athletes. The presenter will describe key areas that must be included in an effective interview (e.g., athletic and life goals, performance assessment). Other essential elements to attend to during the interview will be highlighted; these components assist consultants in gathering effective information to help their athletes achieve their goals.

## **SYM-01C**

### **PSYCHOPHYSIOLOGICAL ASSESSMENT: QUANTIFYING AND OPTIMIZING THE STRESS/ PERFORMANCE RELATIONSHIP**

*Tim Herzog, Reaching Ahead Counseling and Mental  
Performance, USA*

The ability to handle stress of competitions plays an essential role in athletes' ability to achieve peak performance. Psychophysiological assessment allows athletes a tangible way to quantify their stress and to manage it effectively (Smith, Hunfalvay, Herzog, & Beauchamp, 2017). When provided autonomic nervous system data in real time, through biofeedback, performers have greater awareness of and control over their psychophysiology (Blumenstein, 2002; Zaichowsky, 1982). Research has shown that elevated sympathetic nervous system activity can negatively impact performance in several ways including attention rigidity, visual search mistakes, and information processing errors (Gegenfurtner, Lehtinen, & Säljö, 2011; Klostermann, Kredel, & Hossner, 2013; Mann, Ward, Williams, & Janelle, 2007). Enabling the parasympathetic nervous system to work more harmoniously with the sympathetic nervous system can promote flexible attention and situational awareness and enhance performance (Saus, et al., 2006). This presentation will discuss biofeedback and ways it can be utilized to help athletes tangibly measure and manage stress effectively. There are several tangible benefits associated with utilizing psychophysiological assessment: 1) identifying and addressing states of functioning (e.g., fitness level, readiness to perform); 2) quantifying and training optimal performance states that can be subsequently monitored; and 3) characterizing personalized stress profiles that can function as "report cards" at various stages of training. Providing athletes with this data provides the ability to chart benchmarks and overall progress. It also facilitates increased moment-to-moment self-awareness and influence of stress responses such as muscle tension, respiration, heart rate variability, mental clarity, and visual perception that may negatively impact performance. Psychophysiological assessment adds to the toolbox of those striving for excellence to more consistently recreate optimal psychophysiological states associated with their best performances.

## **SYM-01D**

### **CONTEXTUAL INTELLIGENCE TO ENHANCE OBSERVATION ASSESSMENT IN APPLIED SPORT PSYCH**

*Brandon Orr, University of Missouri, USA*

Collecting relevant data about a client through observation is central to the role of any sport psychology consultant (Holder, Winter, & Orr, 2017). Moreover, observation can extend beyond the athletes themselves and include their overall system: teammates, coaches, family, and other influences, plus the environment where performance occurs. These "macro-level" observations give a breadth of information within the context of performance that directly or indirectly impacts performers (Brown, Gould, & Foster, 2005). This presentation will explore the guiding principles of contextual intelligence, and how this framework can be applied in macro-level observations to enhance the quality and utility of information gathered. The use of the SPAM acronym provides a guiding framework for practitioners of key features to understand through observations: Structure, Patterns, Attitudes and Means of influence. The presentation will explore methods used to collect such information, along with the advantages and

challenges of this approach. Two case studies exemplifying the approach will be shared: 1) observation in a team context; and 2) observation within an individual sport.

## **SYM-01E**

### **MENTAL HEALTH SCREENING IN SPORT PSYCHOLOGY CONSULTING**

*Erin Haugen, Assessment and Therapy Associates of Grand  
Forks, PLLC, USA*

Since publication of the Mental Health Best Practices by the National Collegiate Athletic Association (NCAA) Sport Science Institute and NCAA (2016), there has been increased focus on the mental health status of athletes. Although consultants may assume that athletes know when they are experiencing emotional difficulties, athletes may not recognize symptoms as mental health difficulties or avoid seeking treatment due to fear of stigma (Proctor & Boan-Lenzo, 2010; Wahto, Swift, & Whipple, 2016). Thus, mental health symptoms can easily progress to the point that they negatively impact sport performance. Mental health difficulties are also commonly misdiagnosed as physical issues (e.g., diagnosing depression as overtraining syndrome; Schwenk, 2000) or are not addressed when physical issues, such as injuries, occur. Screening helps identify potential clinical issues early allowing consultants to either intervene with those issues if appropriately trained, or to refer to a qualified mental health professional. Earlier detection of difficulties means athletes can receive appropriate treatment faster, which also improves prognosis and potentially mitigates any negative effects on athletic performance. Thus, assessing the mental health status of athletes is of paramount importance (Haugen, Thome, Pietrucha, & Levin, 2017). This presentation will discuss screening measures for the most prevalent mental health conditions in athletes, and attendees will learn how to incorporate these measures into their existing consulting practice while staying within their areas of competency. Effective facilitation of referrals to appropriate mental health providers for further assessment and treatment will also be discussed.

## **SYM-02**

### **TEACHING PERSONAL AND SOCIAL RESPONSIBILITY: A FRAMEWORK THAT CAN BE USED ACROSS A VARIETY OF SPORT AND PHYSICAL ACTIVITY CONTEXTS**

*John McCarthy, Boston University, USA;  
Val Altieri, Jr., Boston University, USA;  
Meredith Whitley, Adelphi University, USA;  
Laura Hayden, University of Massachusetts Boston, USA;  
Courtney Hess, University of Massachusetts Boston, USA;  
Cristina Fink, High Performance Sports, Philadelphia Union,  
USA;  
Fritz Ettl, Butler University, USA*

The use of Positive Youth Development (PYD) approaches have the potential to be expanded with young people across all types of physical activity settings like dance, martial arts, and in all levels of sport. One PYD framework that was designed to simultaneously support both physical literacy and social-emotional learning goals is the Teaching Personal and Social Responsibility (TPSR) framework (Hellison, 2011). TPSR is a frequently cited curricular framework that has been implemented and researched in physical activity settings (Coakley, 2011; Weiss et al., 2012). The framework has been utilized in the United States (Hellison & Walsh, 2002) and internationally including New Zealand (Gordon, Thevenard,

& Hodis, 2012), Spain (Escartí, Wright, Pascual & Gutiérrez, 2015), and Canada (Bean, Forneris, Halsall, 2014) and is perhaps the most influential precursor to the current field of positive youth development through physical activity. The purpose of TPSR is to help youth practice taking personal and social responsibility while participating in physical activity or sport settings.

Hellison's approach gained recognition for working with socially-vulnerable youth in afterschool or physical education settings, but TPSR has potential for a much more widespread application. If you look across physical activity settings, including sport, leaders and coaches are in search of systematic ways to teach responsibility. Those interested in learning a way to develop responsible athletes, may find a good place to start is TPSR because it can be applied in almost any setting. Therefore, this symposium will bring together experienced TPSR practitioners to share their ideas about how they adapted it to work in their various settings. These settings include: 1.) Sport-based Youth Development, 2.) Performance Consulting with Elite Youth Sport Academy, 3.) Community-based Dance Program, 4.) Elite Youth Soccer Coaching. The rationale for TPSR implementation in each context will be described and ideas for potential broader implementation will be considered.

## SYM-02A

### THE ROLE OF COMPETITION IN TEACHING PERSONAL AND SOCIAL RESPONSIBILITY: SYNERGISTIC EFFECTS?

*Meredith Whitley, Adelphi University, USA*

Programs designed to facilitate positive youth development (PYD) through physical activity have traditionally eschewed competition, with the belief that talent development interferes with PYD (Camiré, 2015; Côté & Hancock, 2016). This attempt to de-emphasize the pursuit of performance excellence is complicated by the visibility of competence, with youth often 'keeping score' despite program leaders' attempts to minimize (or eliminate) competition. Additionally, youth are often drawn to the physical activity domain because of an interest in improving and performing (Wilkes & Côté, 2010), and so removing any focus on talent development or competition may reduce engagement over time. There is a small, yet growing body of literature which advocate for a holistic approach in which PYD and talent development are prioritized and sought through comprehensive, integrated, intentional programming (e.g., Camiré, 2015; Miller & Kerr, 2002; Whitley, Gould, Wright, & Hayden, 2017). However, the potential for competition to enhance programs utilizing the Teaching Personal and Social Responsibility (TPSR) framework has not yet been explored. In this presentation, the role of competition in teaching personal and social responsibility will be examined, with a particular focus on ways to facilitate 'healthy competition' in physical activity-based TPSR programs. Additionally, the benefits of pursuing both athletic excellence (i.e., talent development) and personal excellence (i.e., PYD) will be outlined, from enhanced feelings of competence to prolonged engagement in programming. The presenters' experience designing, implementing, and evaluating physical activity-based TPSR programs in various settings (e.g., school-based, after-school, community-based, international) and with various populations (e.g., urban, refugee, South African, Nigerian) will be drawn upon, along with her research on PYD through sport, holistic coaching, and systems thinking/change. The presentation will conclude with a set of recommendations for practitioners seeking to integrate competition into physical activity-based TPSR programs, along with PYD programs more broadly.

## SYM-02B

### HIP HOP & RAP AS TOOLS FOR WORKING THROUGH TRAUMA WITH URBAN YOUTH

*Laura Hayden, University of Massachusetts Boston, USA  
Courtney Hess, University of Massachusetts Boston, USA*

While positive youth development (PYD) programs have paid homage to socio-emotional development, and have certainly demonstrated tangible gains in learning competencies, they can be prescriptive rather than value-centered. Hellison's TPSR model (Hellison, 2011) renounces an authoritarian approach, challenging practitioners to develop relationships with youth while creating value-based lessons that are developed in collaboration between practitioners and youth. This presentation describes a how a hip hop and lyric writing program employed a youth-driven approach to facing difficult emotions, buoyed by Hellison's TPSR framework. Children and adolescents residing in marginalized communities plagued with violence (Kliwer & Lepore, 2014) and loss (Finkelhor, Ormrod, Turner, & Hamby, 2005) often face oppressive social and emotional experiences. This program asks urban youth to be vulnerable, to share difficult traumatic experiences with practitioners - who are trained, or being trained as, counselors - in an effort to identify and process those emotions through hip hop choreography and rap lyric writing. This youth-centered approach requires that participants assume personal and social responsibility for themselves and their peers, while using movement to engage in self-awareness, self-expression, and personal growth. This symposium will primarily focus on the process of creating and engaging in a program that is youth-driven, conceptualized on Hellison footing, and geared toward working through trauma through hip hop movement.

## SYM-02C

### TPSR INCORPORATED INTO A HIGHLY COMPETITIVE ACADEMY

*Cristina Fink, High Performance Sports, Philadelphia Union, USA*

The Teaching Personal and Social Responsibility (TPSR) model was developed for and applied to working with underserved youth and its main goal is the development of the whole person, not just the athlete (Hellison, 2011). Skill development is a goal, but not the primary one.

It may appear as if the goals and structure of TPSR would not apply to competitive sport, where the goal is to perform at the highest level possible. However, for the past five years a highly competitive soccer program and high school has incorporated TPSR in both the school and soccer curriculum. This presentation will argue that the TPSR values of self-management, self-respect, respect of others, and its emphasis on effort, decision-making and goal setting actually result in outcomes that favor competitive sport, including the path to elite sport. Specific TPSR strategies have been incorporated into the coaching and teaching system. Teachers and coaches commit to working with youth in the following ways: respecting the players, empowering them to have a voice, emphasizing players' respect of others, the ability to work independently, and put forward effort regardless of who is watching-- which all have been crucial for the program to work. The purpose of this approach is that players coached in the TPSR model will pursue personal goals enhancing their intrinsic motivation, be able to make better decisions, be better team members by respecting themselves and others,

and be more helpful to their teammates. Finally, since it is our goal to develop the whole person it is our aim that players come to also function better outside the playing field.

## **SYM-02D**

### **TPSR ADAPTATIONS TO U-16 BOYS COMPETITIVE YOUTH SOCCER**

*Fritz Ettl, Butler University, USA*

The Teaching Personal and Social Responsibility (TPSR) framework was designed to be flexible and that adaptations are encouraged in order to address the context of the activity (Hellison, 2011). The purpose of this part of the symposium serves to explore how the TPSR framework can be modified and implemented when coaching in a U-16 Boys competitive youth soccer context. Since youth empowerment a major goal of TPSR, the presenter, who was also the coach, will share the process he used to give players a “voice that matters” (Walsh, 2016; Hellison, 2011) when collectively creating team values and culture at the beginning of the season (Bennet, 2017). Helping the athletes understand the TPSR levels of responsibility served as a starting point for this process (Hellison, 2011). This was done by modifying the levels of responsibility to fit with the soccer club language. How this approach was used in practice will be shared. Athletes were encouraged to voice their opinions, to make decisions about what training should look like/sound like, and to lead each other--a process that was imperfect and always a work-in-progress. Nevertheless, initial implementation of this approach came with challenges. Discomfort with the coach's shift from their previous coaches' “top down” approach that was marked by direct instruction. Moreover, tensions can arise with players and parents when a focus on learning and development seems to take priority over results. However from the coach's perspective there was meaningful progress made. This included: player ownership regarding team values, a positive culture seemed to develop, and players appreciated having a say during talks about expectations--both from group and individualized standpoints. Finally, the team experienced some on-field success by winning a state championship.

## **SYM-03**

### **ONE CASE, FOUR APPROACHES: EXPLORING DIVERSE STYLES IN APPLIED SPORT PSYCHOLOGY CONSULTING**

*Dolores Christensen, University of Oklahoma, USA;*  
*Rachel Walker, University of Delaware, USA;*  
*Adrian Ferrera, University of Washington, USA;*  
*Erica Beachy, Becker College, USA;*  
*Ryan Sappington, University of Maryland at College Park, USA*

There is no single “right” way for a sport and performance psychology professional to approach consulting work. The applied sport and performance psychology context can exist anywhere along the spectrum between performance and clinical concerns and can further be impacted by the intersectional identities of the practitioner and athlete who make up the consulting dyad. These critical considerations can, and should, inform how the practitioner tailors their broad theoretical orientation to address the athlete's specific presenting concerns, overall case conceptualize, and selected interventions.

The purpose of this symposium is to showcase the different approaches an applied sport and performance psychology professional could use in working with the same athlete-

client vignette, “Alex.” To reflect the diversity of training and orientations within the sport and performance psychology field, a group of applied practitioners will each discuss how they would approach consulting with Alex through their unique theoretical lens. These lenses will specifically highlight Relational-Cultural Therapy (RCT; Frey, 2013; Jordan, 2010), Cognitive Behavioral Therapy (CBT; Beck, 2011), Acceptance and Commitment Therapy (ACT; Hayes, 2016), and postmodern philosophy (Anderson, 1997). Each presenter will discuss the theoretical underpinnings of their chosen approach, common interventions used, what the course of applied sport and performance psychology consulting would “look like” with Alex, and what kind of outcomes may be expected from adapting their approach to Alex's presenting concerns (i.e., how change occurs). To additionally demonstrate the multifaceted aspects of applied sport and performance psychology consulting, the case of Alex will contain aspects of clinical, performance, and intersectional multiculturalism. Handouts containing the core features of the discussed theoretical lenses will be provided to symposium attendees and discussion will be encouraged to facilitate reflection and dialogue.

## **SYM-03A**

### **THE IMPORTANCE OF DIALOGUE, MEANING, AND POSSIBILITIES: A POSTMODERN APPROACH TO APPLIED SPORT PSYCHOLOGY PRACTICE**

*Dolores Christensen, University of Oklahoma, USA*

Postmodern approaches such as Harlene Anderson's (1997) Collaborative Language Systems and Michael White's Narrative Therapy (1990) emphasize the importance of the conversations and language systems that clients use to make meaning in their lives. This process can reveal internalized narratives that are often based on socially-constructed experiences. By paying attention to the stories that clients tell about themselves, and the language used in that story, postmodern practitioners believe that deconstructing and re-authoring a narrative can lead to important change and growth for the client.

The purpose, therefore, of dialogue in sport psychology consulting is to encourage the athlete to build awareness of the meaning that comes from their language systems. In conversational spaces between a sport psychology practitioner and athlete, there is an opportunity for the athlete and practitioner to build a genuine social interaction that allows the athlete's narrative to be co-created anew. As this self-awareness is developed and enhanced, the athlete subsequently generates new ways of understanding themselves and others in the world. New knowledge can lead to additional possibilities for being, which then—in turn—create new meanings. This cyclical and generative process (i.e., conversation-meaning-understanding-possibilities) honors dialogue as the primary approach to witnessing athletes make preferred changes in their lives.

The purpose of this presentation will be to apply the philosophical approach of postmodernism to a sport psychology consulting scenario with an individual athlete. The presenter will highlight postmodern case conceptualization as a “way of being” (Anderson, 1997) with the athlete, detail how to create dialogical space and conversational structure, and name common dialogue-promoting questions used from a postmodern framework. The presenter will also discuss how the intersectional identities of both the practitioner and athlete would further impact the dialogical process towards meaning-making and new possibilities for the athlete.



**SYM-03B****TAKING ACTION: CONCEPTUALIZATION AND STRATEGIES USING AN ACT APPROACH TO HELP ATHLETES PERFORM IN SPORT AND LIFE***Rachel Walker, University of Delaware, USA*

Acceptance and Commitment Therapy (ACT) is a third-wave behavioral therapy that utilizes interventions from both cognitive and behavioral wings (Hayes, 2016). Recent research suggests that a mindful-acceptance approach to internal experiences can enhance performance and facilitate positive behavioral outcomes (Bernier, Thienot, Codron, & Fournier, 2009; Gardner & Moore, 2004, 2012). Given this research, the purpose of this presentation is to provide a forum for conceptualization of an athlete through an ACT lens, identifying different techniques to use that may benefit the athlete's well-being and performance. Cognitive fusion, experiential avoidance, and present-moment attention are central tenets of ACT and affect an individual's ability to attend flexibly to what is occurring internally and externally (Hayes, Strosahl, & Wilson, 2012). As such, the conceptualization will jointly focus on the FEAR model within ACT, including a discussion of fusion, evaluation, avoidance, and reasons as well as incorporating the hexaflex model to discuss fusion, avoidance, and difficulty with present-moment awareness. Following this presentation participants will: (1) understand conceptualization of a specific athlete using ACT, (2) develop a greater understanding of techniques or metaphors used to target different components within ACT, and (3) incorporate ACT approaches in sport, exercise, and performance psychology practice. A handout of the two models used for conceptualization will be provided.

**SYM-03C****AUTHENTICITY AND CONNECTEDNESS: A RELATIONAL-CULTURAL APPROACH TO WORKING WITH ATHLETES***Erica Beachy, Becker College, USA;  
Ryan Sappington, University of Maryland at College Park, USA*

Relational-cultural therapy (RCT) is a feminist-based therapeutic approach developed as an alternative to traditional models of psychotherapeutic treatment, which often view psychological health as an individual's ability to achieve autonomy, independence, and individuation (Comstock et al., 2008; Frey, 2013; Jordan, 2001). Instead, RCT posits that greater connectedness and authenticity in one's relationships is the source of mental and emotional health and a stronger self-identity, and that sociocultural forces impede one's ability to foster such relationships (Jordan, 2010). While RCT aims to account for the ways traditional theories often failed to capture marginalized or oppressed experiences, it is not limited to working with individuals with these identities.

A core tenant of RCT is the belief that individuals grow in connection with others (Jordan, 2010). As such, the therapist aims to build a mutually empathic and authentic therapeutic relationship (Comstock et al., 2008). There is also a focus on helping clients foster mutually-growth-fostering relationships with others characterized by the Five Good Things (Miller et al., 2004).

Initial steps in conceptualizing a clinical/sport psychology case using RCT may include: exploration of the client's cultural identities to better understand how those impact their relationships with themselves, others, and greater society,

inquiries about the client's existing relational connections, and investigations into the client's learned strategies of disconnection.

**SYM-03D****"STOP THINKING LIKE THAT!": A COGNITIVE BEHAVIORAL APPROACH TO WORKING WITH ATHLETES***Adrian Ferrera, University of Washington, USA*

A Cognitive Behavior Therapy (CBT) approach can be used to address both clinical and performance related concerns experienced by athletes. CBT is a psychoeducational approach which provides the client with an opportunity to gain insight into the reciprocal cause-and-effect relationship of their cognitions, emotions, and behaviors and in turn, learn to develop the ability to change automatic thoughts that are triggered by a specified stimuli and lead to an emotional response.

During the initial session it is critical to identify the client's current issue. Having the client answer "What events, stimuli, or triggers lead to an undesirable emotional response?" allows treatment goals to be discussed and established. As the internet is a widely-used source to gather information on therapy or treatment, the therapist would gauge the client's knowledge of CBT, provide clarifications, express the expectations of the therapist and client during treatment, and answer any client questions.

Each session is structured in a manner where the previous sessions is reviewed, the client and therapist collaborate to establish the session agenda, work through the agenda, and then finally create homework to be completed prior to the next session. It is the therapist's role to assist the client in understanding their faulty assumptions or cognitive distortions (e.g. catastrophizing, overgeneralizing, personalization, polarized thinking) which leads to an undesired response. The client and therapist collaborate in restructuring cognitions, or interpretation of cognitions, to provide the client with more effective ways of thinking. Homework assignments could range from monitoring thoughts as they relate to behaviors and/or emotions, completing worksheets, and testing restructured cognitions in everyday life.

A CBT approach allows the client to alleviate distress that is provoked by self-deprecating thoughts that are inaccurate. Teaching the client to modify distorted thinking can change dysfunctional emotions and behaviors and prevent relapse.

**SYM-04****SIGNATURE PRACTICES FOR PERFORMANCE EXCELLENCE: FOUR EXPERTS AND FOUR KEY PRACTICES 2018***Elizabeth Shoenfelt, Western Kentucky University, USA;  
Sebastian Brueckner, Muenster University, Germany;  
Goran Kentta, The Swedish School of Sport and Health Science, Sweden;  
Stiliani "Ani" Chroni, Inland Norway School of Sport Sciences, Norway*

In this symposium, four sport psychologists, with more than a century of combined experience, offer insight and direction on four signature practices that have led to successful consulting experiences with individual athletes and coaches.

The first presenter introduces an ACT-based approach to motivational challenges that focuses on the three pillars of ACT, open, aware, and engaged, with a particular emphasis on engaged by establishing a strong connection with core values and the ability to sustain value-consistent actions. The second presenter adopts a holistic scientist-practitioner approach to developing performance excellence and will provide hands-on experience with a “somatic markers” exercise, identified in Storch’s (2004) Zurich Resource Model (ZRM), a vital mindfulness-based component used to foster athlete sport specific and general emotional self-regulation skills. The “somatic markers” exercise has proven very effective in helping athletes develop better self-awareness, self-regulation, and self-acceptance when faced with emotional challenges. The third presenter draws on empirical evidence from medal winning national team coaches and extensive field experience to share cognitive and behavioral tools for taking the coach from threat to challenge in stress situations using two filters: expectancies from past stress stimuli and expectancies to cope with situational demands (Chroni, Abrahamsen, & Hemmestad, 2016; Ursin & Eriksen, 2004). Systematic reflective practice enables learning sources of confidence for effective coaching. The final presenter shares a structured method for providing objective, multisource feedback for role clarification in team sports. Players and coaches independently indicate from a list of roles the primary roles for each player. Tabulated data are presented in individual role clarification meetings between player and coach; the sport psychologist may facilitate. Athletes perceive the feedback as accurate, useful in increasing role clarity, and contributing to effective two-way communication. Those in attendance will learn four key practices to potentially incorporate into their sport psychology consulting and practice.

## **SYM-04A**

### **BUILDING EMOTIONAL SELF-REGULATION SKILLS: ACTIVATING RESOURCES FOR ATHLETES’ SELF-GROWTH USING THE “SOMATIC MARKERS” INTERVENTION**

*Sebastian Brueckner, Muenster University, Germany*

Recently, sport psychology praxis has advanced beyond implementation of traditional psychological skills training. Increasingly, mindfulness-based interventions have been included in consulting with athletes to help them cope with challenges faced throughout their career in and out of competition and practice (Birrer et al., 2012). Baltzell (2016) offered a comprehensive overview how mindfulness and performance are linked in sport and other performance domains through constructs like emotional self-regulation (Moore, 2016) as well as self-compassion and distress tolerance (Baltzell, 2016). This presentation will describe and provide hands-on experience with a specific signature intervention successfully used in consulting with athletes to enhance emotional self-regulation skills. The “somatic markers” exercise has proven very effective in helping athletes develop better self-awareness, self-regulation, and self-acceptance when faced with emotional challenges. I use this exercise with athletes from junior elite to senior international and Olympic level as part of my holistic scientist-practitioner approach to developing performance excellence reflected in Wylleman and Lavallee’s (2003) holistic life-span development model. Athlete self-growth across all four levels of Wylleman and Lavallee’s (2003) developmental model is positively influenced through this

specific consulting praxis. The “somatic markers” exercise, as identified in Storch’s (2004) Zurich Resource Model (ZRM), is a vital component used to foster athlete sport specific and general emotional self-regulation skills, fueling this self-growth. The ZRM describes multiple resource-activating methods to enhance self-management, which can be linked to mindfulness and acceptance-commitment approaches discussed by Birrer et al. (2012). This signature intervention helps athletes improve in-the-moment awareness by tapping into and linking thoughts, feelings and bodily sensations experienced when faced with difficult situations. Attendees will experience how the specific exercise “somatic markers” can be presented and potentially implemented in their own consulting. Finally, how those self-regulation interventions can complement mindfulness interventions and build on traditional psychological skills training will be discussed.

## **SYM-04B**

### **TAKING COACHES FROM THREAT TO CHALLENGE: REFLECT AND LEARN WHAT TO EXPECT**

*Stiliani “Ani” Chroni, Inland Norway School of Sport Sciences, Norway*

Stress experienced by a coach can impact the coach’s onsite performance (and wellbeing if prolonged over time; Didymus, 2017). A coach’s stress also is perceived by athletes and, most often, the stress trickles down to impact athlete performance in a negative way (Thelwell, Wagstaff, Rayner, Chapman, & Barker, 2017). In reality, regardless how well prepared a coach may be, there will be situations and events that throw him/her off balance and trigger the stress alarm. Hence, the bottom line questions for a coach are (a) how to move as fast as possible from threat to challenge and (b) how to prevent being thrown off balance by the same stressor again. This signature practice draws on research-based evidence from established medal winning national team coaches and their federation practices as well as from the extensive field experience of the presenter, who will share cognitive and behavioral tools for taking the coach from threat to challenge. From a theoretical standpoint, there are two filters coaches can use on the job to interpret both common and unexpected stressors as manageable challenges: (1) expectancies formed from past stress stimuli and (2) expectancies to cope with the situational demands (Chroni, Abrahamsen, & Hemmestad, 2016; Ursin & Eriksen, 2004). From a practical standpoint, these filtering functions are well served when coaches use systematic reflection that is translated into learning and confidence building. The presenter will share practical ideas on systematic reflective practice (on action and in action, personal and shared) that have been successfully used with coaches to accommodate learning of (and from) problems and adversities, and learning the sources of confidence they need for effective coaching.

## **SYM-04C**

### **GOING BACK TO THE ROOTS – REDISCOVERING CORE VALUES**

*Goran Kentta, The Swedish School of Sport and Health Science, Sweden*

Supporting athletes with various goal setting and motivational strategies is fundamental in the practice of sport psychology. This presentation provides a somewhat different approach, based on Acceptance Commitment Therapy (ACT), to motivational challenges most athletes face at some time. In this signature practice, a brief theoretical introduction will be

provided together with applied examples of a process to help athletes identify core values and to help ensure actions consistent with these values. ACT originated in clinical cognitive behavioral therapy (CBT), but increasingly is being applied in the sports context (Baltzell, 2016; Gardner & Moore, 2006). Essentially, brief interventions based on ACT consist of three core pillars: open, aware, and engaged (Strosahl, Robinson, & Gustavsson, 2012). First, open is determined by the ability to accept distress without resistance. Thus, when open, behavior is shaped by direct results rather than rigid rules. Second, awareness is the ability to fully experience the present moment and to gain perspective on self and the story about self. Finally, engaged is determined by a strong connection with values and the ability to sustain value-consistent action. Engaged is the more behavior oriented pillar of ACT, and builds upon positive reinforcement of specific committed actions (i.e., specific behaviors). Identifying core values for a competitive athlete can be a challenge. Basically, the athlete should determine: What is most important, deep in your heart? What sort of person do you want to be? What is significant and meaningful to you in sports? What do you want to stand for as an athlete? These questions often go beyond traditional goal setting and motivational strategies and frequently stay connected to values, thus reinforcing and sustaining value consistent behavior (Hayes, Bond, Barnes-Holmes, & Austin, 2016). Applied examples will be provided. The audience will understand a process through which an athlete can achieve value consistent behavior.

## **SYM-04D**

### **OBJECTIVE, STRUCTURED MULTI-SOURCE FEEDBACK TO INCREASE ROLE CLARITY AND ROLE UNDERSTANDING IN TEAM SPORTS**

*Elizabeth Shoенfelt, Western Kentucky University, USA*

When team member roles are critical, interdependent, highly differentiated, and non-redundant, failure to perform role assignments by a single team member may result in ineffectiveness for the entire team. The Johari Window (Luft, 1961), an established organization development tool, was adapted to provide structured, objective feedback for role clarification in team sports. Each player and the head coach independently indicate from a list of roles the primary roles for each player on the team (i.e., three roles indicated for each player by each teammate; up to five roles indicated for each player by the coach and each player as their own roles). These data are tabulated, placed into the Johari Window quadrants, and then presented to each player in an individual role clarification meeting between player and coach that may be facilitated by the sport psychologist. The Johari quadrants reveal: (1) roles recognized by the player, coach, and teammates; (2) roles the player and coach are aware of but not recognized by teammates; (3) roles recognized by coach and teammates but not the player; (4) roles only the coach recognizes. This objective, relatively anonymous, multi-source feedback about how one's role performance is perceived (or not perceived) by teammates provides the basis for role discussion between the coach and the athlete (Eys, Schinke, & Jeffery, 2007). Self-report data following implementation with several different sports indicate athletes perceive the feedback as accurate, provides new information, contributes to understanding team perceptions of their contributions, and is useful in increasing role clarity. This signature practice can be a useful component of effective two-way communication between the coach and athlete that can be repeated as roles evolve over a season (Carron & Eys, 2012). A detailed example with an intercollegiate basketball team will be presented. Audience members should gain sufficient knowledge to implement the technique.

## **SYM-05**

### **NON-CONSCIOUS INFLUENCES DURING EXERCISE: AN EXAMINATION OF PRIMING EFFECTS**

*Jasmin Hutchinson, Springfield College, USA;  
Adam Feit, Springfield College, USA;  
Suzanne Pottratz, East Central University, USA;  
Elizabeth Mullin, Springfield College, USA;  
Sam Santich, Springfield College, USA;  
Zack Zenko, Duke University, USA;  
Paul Dalton, Springfield College, USA;  
Robert Mendoza, Springfield College, USA;  
Kenneth Andoll, Springfield College, USA*

The physical and psychological benefits of exercise and physical activity are well established, yet most people in industrialized countries remain sedentary or inadequately active. The dominant paradigm in the promotion of exercise behavior is one of cognitivism, wherein the decision to engage in or disengage from exercise depends on the rational cognitive appraisal of information in relation to this behavior (Ekkekakis, 2013). To date, interventions based on this approach have had limited impact on long-term exercise behavior. As concluded by Rhodes & Nigg (2011) there is "adequate, if not overwhelming, evidence to suggest that unique theories of physical activity should be pursued" (p. 114). Like other behavioral sciences, sport and exercise psychology is beginning to embrace dual-process models that acknowledge the importance of implicit, or non-conscious, processes in the determination of human behavior. One way that such processes can be influenced is through priming, an implicit memory effect in which exposure to a stimulus can activate relevant mental processes. This symposium will provide experimental evidence for the effects of priming in an exercise context. The first speaker will provide a general overview of dual-process theory in sport and exercise contexts, and introduce the concept of priming. The second and third speakers will present findings from two independent studies exploring the effects of subliminal affective primes embedded in a music video on measures of affective valence during and following exercise. The final speaker will present the effects of a supraliminal priming task on muscular endurance performance. The symposium discussant will comment on these findings and offer insight on the ways in which a consideration of implicit processes might shape future research and applied practice.

## **SYM-05A**

### **DUAL-PROCESS THEORIES IN EXERCISE AND SPORT**

*Jasmin Hutchinson, Springfield College, USA;  
Adam Feit, Springfield College, USA*

Dual-process models in psychology propose that two distinct cognitive systems underlie thinking and reasoning; an evolutionarily old system (System 1) that is automatic, unconscious, and fast, and a more recent, distinctively human system (System 2) that is controlled, conscious, and slow (Evans & Frankish, 2009). This presentation will offer an overview of prominent dual-process theories and their application in sport and exercise contexts. Specifically in the context of exercise behavior, we will critically evaluate the assumption that humans are rational decision-makers, and advocate for an integrative approach to behavior change that not only targets the conscious reflective system but also considers hedonic, impulsive influences on behavior. From a dual-systems perspective, applied interventions that simultaneously address reasoned attitudes and beliefs (e.g.,

through processes of cognitive restructuring or persuasion), promote effective self-regulation of health goals (e.g., by increasing self-monitoring, and developing coping skills), and in addition target automatic influences on behavior will be particularly effective (Hofmann, Friese, & Wiers, 2008). Research on interventions that target non-conscious processes is scant; however, a small body of literature has emerged concerning the impact of priming interventions on health behaviors. Priming refers to the passive, subtle, and unobtrusive activation of relevant mental representations by external stimuli, without a person being consciously aware of the influence exerted by those stimuli (Bargh & Chartrand, 2000). Studies of implicit motivation (goal priming) have reported encouraging findings, yet there remains considerable scope for further investigations of priming effects in sport and exercise contexts.

## **SYM-05B**

### **THE INFLUENCE OF PRIMING DURING EXERCISE ON AFFECTIVE VALENCE AND PERCEIVED EXERTION**

*Suzanne Pottratz, East Central University, USA;  
Jasmin Hutchinson, Springfield College, USA;  
Elizabeth Mullin, Springfield College, USA*

This study investigated the effects of affective priming on in-task measures of affective valence and ratings of perceived exertion (RPE), and post-task measures of remembered pleasure and forecasted pleasure. In this particular study, subliminal priming was used in the form of positive affective words embedded within music videos. Recreationally active female participants ( $N = 28$ ; mean age =  $22.57 \pm 3.26$  years) underwent four 8-min bouts of exercise (brisk walking on a treadmill) under four different conditions; music only (M), music video (MV), music video with primes (MVP), and no-intervention control (C). Condition order was randomized and fully counterbalanced. Affective valence and RPE were measured every 2-min during the walking task, and remembered and forecasted pleasure were measured following the exercise bout. A 4 (condition)  $\times$  4 (time) doubly repeated measures MANOVA was conducted to analyze differences in affective valence and RPE across the four conditions over time. A significant ( $p < .001$ ) condition  $\times$  time interaction was found for both affective valence and RPE. In-task affective valence was significantly higher (more positive) in the MVP condition compared to the other conditions (all  $p < .05$ ). RPE was significantly lower in the MVP condition compared to the other conditions at 6-min and 8-min, and significantly lower than the C condition at all time-points (all  $p < .001$ ). A one-way repeated measures MANOVA was used to analyze differences in remembered and forecasted pleasure between the four experimental conditions. Remembered pleasure and forecasted pleasure were both significantly ( $p < .001$ ) greater (more positive) following the MVP condition compared to the other conditions. Primes embedded within a music video improved affective valence during and after exercise. Exercise psychology consultants might utilize this intervention with clients, particularly those who do not enjoy exercise, to enhance the overall exercise experience, which may result in better adherence.

## **SYM-05C**

### **AFFECTIVE PRIMES IN MUSIC-VIDEO CAN POSITIVELY INFLUENCE THE AFFECTIVE EXPERIENCE OF EXERCISE**

*Jasmin Hutchinson, Springfield College, USA;  
Zack Zenko, Duke University, USA;  
Paul Dalton, Springfield College, USA;  
Sam Santich, Springfield College, USA*

This study sought to investigate the effects of subliminal affective primes on measures of experienced, remembered and forecasted pleasure associated with exercise. Participants ( $N = 24$ ; mean age =  $37.5 \pm 8.0$  years) completed a 10-min brisk walk on a treadmill under two conditions; primed and unprimed. In the primed condition positively valenced words (happy, pleased, joyful) were embedded within a music video at 16 ms duration (i.e. below the threshold for conscious perception; Ionescu, 2016). Embedded words appeared every 10 s for the duration of the exercise bout, with a 1:3 ratio of positively valenced words (primes) to neutral words (table, pencil, tree) to prevent habituation to the positive words (Silvestrini & Gandolla, 2011). A debriefing procedure indicated participants were not aware of the primes. Affective valence was assessed at the mid- and end-point of exercise (i.e. min-5 and min 10) using the Feeling Scale (Hardy & Rejeski, 1989). Exercise enjoyment, remembered pleasure and forecasted pleasure were assessed post-exercise using the PACES-8 (Mullen, 2011), Feeling Scale, and an empirical valence scale, respectively. As predicted, the priming condition enhanced all affective outcomes. The effect of condition was significant for all dependent variables, namely (a) experienced pleasure at min-5 ( $p = .001$ ,  $\eta^2 = .37$ ); (b) experienced pleasure at min-10 ( $p = .003$ ,  $\eta^2 = .32$ ); (c) remembered pleasure ( $p < .001$ ,  $\eta^2 = .43$ ); (d) forecasted pleasure ( $p < .001$ ,  $\eta^2 = .54$ ); and (e) enjoyment ( $p = .007$ ,  $\eta^2 = .28$ ). These results demonstrate the efficacy of affective primes in enhancing the affective experience of exercise. According to the hedonic principle, positive affective responses to an experience increase the likelihood of repeating that experience (Kahneman, 1999). Therefore, experiencing positive affect during and following exercise should positively influence exercise adherence, as demonstrated by Williams et al. (2012).

## **SYM-05D**

### **THE EFFECTS OF PRIMING ON A MUSCULAR ENDURANCE TASK**

*Sam Santich, Springfield College, USA;  
Robert Mendoza, Springfield College, USA;  
Kenneth Andoll, Springfield College, USA;  
Jasmin Hutchinson, Springfield College, USA*

The purpose of this study was to examine the effects of priming on muscular endurance in a prone plank task. Twenty college students, seven females and thirteen males, aged 18-25 (mean age =  $20.3 \pm 1.49$  years) participated in the study. The study was conducted over three sessions: a baseline control session followed by two experimental sessions "Prime" or "No-Prime" conditions. The order of the second two sessions was randomized and fully counterbalanced. A scrambled sentence task (Srull & Wyer, 1979) was used to prime participants for endurance. The task required participants to unscramble a series of 20 sentences that were associated with endurance (Prime condition; e.g. "he won't give up"), or used neutral words and phrases (No-prime condition; e.g. "he went to school"). Immediately following the scrambled sentence task participants performed a maximum effort prone

plank for time. The plank protocol required participants to maintain a static prone position with only forearms and toes touching the ground. Results of a one-way repeated measures ANOVA revealed no significant difference in endurance time between conditions ( $p = .241$ ). The difference in endurance time between Prime ( $141.49 \pm 59.27$  sec) and No-prime ( $133.34 \pm 56.83$  sec) conditions was associated with a small effect size (Cohen's  $d = .14$ ). Additional research is needed to further examine the effect of endurance priming on other physical performance tasks.

## SYM-06

### INTERSECTIONALITY OF SOCIOCULTURAL IDENTITIES IN THE CONTEXT OF SPORT: THE PRACTITIONER'S MODEL FOR VALUES-BASED PERSPECTIVES TO ENHANCE PROVIDER-CLIENT ALLIANCE

*Angel Brutus, Synergistic Solutions, LLC, USA;*  
*Leeja Carter, Long Island University - Brooklyn, USA;*  
*Hannah Bennett, Augusta University, USA;*  
*Mustafa Sarkar, Nottingham Trent University, UK;*  
*Shameema Yousuf, Empower2Perform, UK*

Culturally-informed service provision for athletes of diverse backgrounds is an ethical responsibility for practitioners to adhere. Intersectionality is the guiding framework used to examine how multiple axes of identity interact simultaneously in the world of sport. Multiple social identity categories will be reviewed to illustrate the multidimensional experiences of athletes whose intersecting identities can manifest in the context of race, ethnicity, gender, sexual orientation, spirituality, religion, and international status. Practitioners are encouraged to emphasize performers' inherent capacity for self-direction, individuality, and process of choice to guide behaviors to achieve meaningful and fulfilling sport-experiences.

## SYM-06A

### RACE AND ETHNICITY IN SPORT: IMPLICATIONS FOR PERFORMANCE

*Angel Brutus, Synergistic Solutions, LLC, USA*

Within the context of sport, much of the research concerning race and ethnicity has approached perspectives from a monoracial viewpoint, leaving gaps in knowledge about experiences of populations of color who may identify with a more fluid identity. Attendees will increase understanding and awareness of race as a social construct (Omi & Winant, 2015) and how colorism and monoracism (Brutus, 2016) may be experienced in sport and performance settings to further enhance practitioner and researcher knowledge when engaging with clients of diverse backgrounds. Adopting a humanistic approach (Butcher, Mineka & Hooley, 2010) to promote opportunities for client-provider, participant-researcher alliance will be encouraged.

## SYM-06B

### INTERNATIONAL STUDENT-ATHLETES: A NEO-RACISM LENS

*Shameema Yousuf, Empower2Perform, UK*

International student-athletes who cross national or territorial borders for athletic and academic pursuits are on sojourn (Siu, 1952). Labelled "Non-Resident Aliens" by US Immigration Services to depict their foreign minority status, these students are distinct from those international students who do not

pursue athletic interests. While there is limited research that addresses international student athlete experiences, that which has been undertaken examines them through the lens of Neo-Racism Theory (Barker, 1981). Attendees will gain insight into the relevance of Neo-Racism Theory, and practitioner awareness will be heightened by learning about their motivations, some of their potential stressors and protection factors. Recommendations for practice with athletes of diverse international cultural identities will be offered.

## SYM-06C

### FEMINIST APPLIED SPORT PSYCHOLOGY (FSP)

*Leeja Carter, Long Island University - Brooklyn, USA*

Through an intersectional framework, Feminist Applied Sport Psychology (FSP) practice integrates feminist and applied sport psychology to assist athletes in addressing performance-related issues. FSP achieves this by raising athletes' awareness of intersectional politics, creating an athlete - consultant relationship that is equal and mutual, as well as having a focus on empowerment. This lecture will introduce attendees to feminist applied sport psychology with a particular emphasis on the politics of gender, race, and class and how they shape an athlete's experiences in sport. The lecture will first overview feminist applied sport psychology and the works of Diane Gill, Vikki Krane, and Carole Oglesby. Shifting from research to practice and expanding on Gill's (2001) assertion that feminist practice is "empowering, process-oriented approach that shifts emphasis from personal change to social change" (p. 369) the lecture will use FSP as the framework to discuss the presented case. During this portion of the lecture, the tenets of FSP and how it assists athletes in naming their experiences, improving their performance, and becoming advocates will be discussed.

## SYM-06D

### LESBIAN, GAY, BISEXUAL, TRANS, QUEER/ QUESTIONING, AND OTHERS (LGBTQ+)

*Hannah Bennett, Augusta University, USA*

The heterosexist and homonegative atmosphere of the sporting world has been evidenced throughout research, leaving sexual minorities questioning their support and welcome within sport (Cunningham, 2012). Although progress has been seen in some areas (Griffin, 2012), the longstanding atmosphere of heteronormativity could question whether the athletes who identify as LGBTQ+ are able to perform at their potential. The need to better support these athletes is warranted. Attendees will be exposed to relevant knowledge within the LGBTQ+ sporting literature in an effort to build or expand their practical application base with this diverse community of athletes.

## SYM-06E

### SPIRITUALITY AND RELIGION IN SPORT

*Mustafa Sarkar, Nottingham Trent University, UK*

With a growing number of sport performers revealing their religious and spiritual beliefs, it is becoming increasingly important for sport psychologists to recognize and appreciate the values to which such beliefs are attached. Using the RRICC model (Plante, 2007) as a framework for discussion, the purpose of this presentation is to highlight ethical issues for sport psychologists when working with religious and spiritual

athletes. The RRICC model addresses the ethical principles of respect, responsibility, integrity, competence, and concern. It is hoped that a discussion of these guidelines will help sport psychologists better navigate the often challenging landscape of working with athletes whose everyday lives and identities are grounded in religious and spiritual association. SYM-07

## **SYM-07**

### **SPECIALIZED MENTAL HEALTH CARE SERVICE PROVISION FOR CANADIAN ATHLETES AND COACHES**

*Natalie Durand-Bush, University of Ottawa, Canada;*  
*Kylie McNeill, University of Ottawa, Canada;*  
*Pierre-Nicolas Lemyre, Norwegian School of Sport Sciences, Norway;*  
*Carla Edwards, McMaster University/ Synergy Sport + Mental Health, Canada;*  
*Krista Van Slingerland, University of Ottawa, Canada*

The testimonies of Canadian Olympic phenome Clara Hughes and Miami Dolphins superstar Ricky Williams come in stark contrast to popular perceptions of life as an elite performer. The unique culture of sport poses several challenges to help-seeking and mental illness treatment due to a prevailing stigma that equates mental illness to weakness. Many athletes and coaches consequently struggle in silence and choose not to seek care (Gulliver et al., 2012). These performers' psychological needs are arguably best addressed by practitioners who are experts in both sport and psychology (Uphill et al., 2016). Mental performance consultants in Canada are frequently sought to provide mental skills training, but unfortunately, most are not clinicians with competencies to treat mental illnesses. On the other hand, the unique reality of competitive sport often exceeds the scope of practice of clinical psychologists and psychiatrists, given their limited sport science knowledge. This represents a significant gap in mental health care service provision for Canadian athletes and coaches. In this symposium, we will present recent evidence showcasing advances in specialized mental health services in Canadian sport. We will first provide an overview of the literature on mental health and mental illness within this context. Next, we will present the cases of two coaches whose mental health and coaching practice was affected by burnout. The positive changes they experienced from participating in a sport psychology intervention designed to improve their mental health will be discussed. We will then address the burgeoning field of sport psychiatry and present cases to illustrate the complexities involved in diagnosing and treating mental illness in elite athletes. Finally, we will share the results of the first phase of a research project in which a Canadian Centre for Mental Health and Sport was created to provide integrated mental health care to competitive athletes and coaches.

## **SYM-07A**

### **A SPORT PSYCHOLOGY INTERVENTION TO IMPROVE COACHES' MENTAL HEALTH**

*Kylie McNeill, University of Ottawa, Canada;*  
*Natalie Durand-Bush, University of Ottawa, Canada;*  
*Pierre-Nicolas Lemyre, Norwegian School of Sport Sciences, Norway*

Burnout is a form of ill-being characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment that arises from exposure to chronic work-related stressors (Maslach et al., 1996). Although

conceptualized as a work-related syndrome, burnout has a negative affect on coaches' personal lives and overall mental health (e.g., panic attacks, withdrawal from social relationships; Bentzen et al., 2014). Despite considerable research on this topic, the literature is marked by an absence of sport psychology interventions for coaches experiencing burnout (Goodger et al., 2007). Consequently, we conducted a study to investigate the perceived impact of an applied sport psychology intervention designed to alleviate burnout symptoms and improve well-being in coaches. While the intervention was implemented with five developmental and high performance coaches, we will present two cases illustrating a female and a male coaches' altering experiences throughout the intervention that spanned several months. The qualitative content analysis of pre-and post-intervention interviews and individual intervention sessions guided by the trained facilitator revealed that the two coaches experienced burnout broadly as a maladaptive state (e.g., feeling depressed, anxious, apathetic) with consequences for their mental health (e.g., difficulty coping with daily stressors, decreased emotional well-being). As a result of participating in the intervention, the coaches developed various competencies (e.g., strategic planning to meet personal standards of well-being, reflection in action) and strategies (e.g., facilitative self-talk, gratitude diary) to regulate their thoughts, feeling, and actions, in response to their demanding environment. They also made important changes to their coaching practice to prioritize their well-being (e.g., new club, fewer athletes). In turn, they reported reduced burnout symptoms (e.g., less emotional exhaustion, more engagement and effectiveness) and improved mental health (e.g., more happiness and autonomy, better social relations). Recommendations for future research and interventions to address mental health in coaches will be discussed.

## **SYM-07B**

### **SPORT PSYCHIATRY: CASE ILLUSTRATIONS OF DIAGNOSIS AND TREATMENT OF MENTAL ILLNESS IN ELITE ATHLETES**

*Carla Edwards, McMaster University/ Synergy Sport + Mental Health, Canada*

Sport psychiatry involves the diagnosis and treatment of psychiatric illness in athletes, as well as the implementation of psychological approaches to enhance performance (Reardon & Factor, 2010). It is a specialized area of psychiatry recognizing that athletes are a special population with unique characteristics and needs. Studies show that athletes develop the same mental illnesses at similar rates as the general population, however, numerous factors can lead to under-recognition of psychiatric symptoms (Reardon & Factor, 2010; Rice et al., 2016). Likewise, a lack of awareness of elite athletes' unique characteristics can lead to misdiagnosis, misunderstanding, and suboptimal treatment. Psychiatrists can utilize the biopsychosocial profile to understand athletes in the most thorough and comprehensive manner and to monitor for emerging illness (Rice et al., 2016). In this presentation, cases will be presented to illustrate the spectrum of illnesses that elite athletes can experience, as well as the multimodal treatment approaches (i.e., pharmacological, psychotherapeutic, team intervention, psychological/behavioural) that can be used. Specifically, the manifestation, diagnosis, and treatment of bipolar disorder in two elite athletes with very different trajectories will be discussed. Moreover, an athlete with depression complicated by trauma, ADHD, an eating disorder, and longstanding biopsychosocial challenges deeply rooted in family challenges will be

addressed. Special sport influences impacting treatment decisions must be considered; for instance, medications that could result in significant weight gain or loss, or sedation, are not optimal for athletes' performance. There is a dearth of literature identifying rates and complexities of mental illnesses and treatment in Canadian athletes at this time. However, multidisciplinary research initiatives led by experts from both psychology and sport are underway.

## **SYM-07C**

### **DESIGNING A SPECIALIZED MENTAL HEALTH CARE SERVICE DELIVERY MODEL FOR COMPETITIVE ATHLETES WITHIN THE CANADIAN CENTRE FOR MENTAL HEALTH AND SPORT**

*Krista Van Slingerland, University of Ottawa, Canada;  
Natalie Durand-Bush, University of Ottawa, Canada*

Given the special considerations and challenges involved in diagnosing and treating mental illnesses in athletes (Glick & Horsfall, 2009), practitioners with expertise in both sport and mental health should address athletes' psychological needs (Uphill et al., 2016). However, few clinical psychologists and psychiatrists in Canada specialize in sport, which represents a significant gap in mental health care service provision for Canadian athletes. This provided the rationale for conducting this study, which stems from the first phase of a larger project that is bringing together multiple expert stakeholders to design, implement, and evaluate a specialized mental health care service delivery model for athletes, integrated within the Canadian Centre for Mental Health in Sport (CCMHS). The CCMHS will be the first Centre in Canada to prioritize both the mental health and performance of competitive athletes in its education and treatment initiatives. A Participatory Action Research methodology was used to collect data from 18 stakeholders (11 women, 7 men) during a two-day summit. The subject matter experts engaged in small and large group discussions to explore (a) the availability and effectiveness of mental health care provision for Canadian athletes, and (b) the strengths, weaknesses, opportunities, and threats associated with the creation of the CCMHS and integrated multidisciplinary model. These data formed the foundation for a group concept mapping exercise (Burke et al., 2005), in which the stakeholders produced statements describing the elements that should be included in an athlete-specific mental health care model implemented within the CCMHS. Six categories of statements emerged: (1) service delivery, (2) communications and promotion, (3) partnerships, (4) education and training, (5) business, policy and operations, and (6) research. The service delivery model that was conceptualized by the stakeholders based on these findings will be presented. This model will be pilot tested in the next phase of the project.

## **SYM-08**

### **GETTING YOUR HEAD BACK IN THE GAME: FROM EVALUATION TO PSYCHOLOGICAL READINESS FOLLOWING SPORT-RELATED CONCUSSION**

*Anthony Kontos, University of Pittsburgh/Dept of Orthop, USA;  
Jeff Caron, Yale University, USA;  
Les Podlog, University of Utah, USA;  
Gordon Bloom, McGill University, Canada*

Sport-related concussions (SRC) represent a significant injury, affecting millions of athletes each year (Bryan et al., 2016). Concussed athletes often present with unique psychological

challenges to athletes including anxiety, depression, social isolation, and fear of re-injury (Sandel et al., 2017). Although there have been substantial advances in the medical evaluation and treatment of SRC (Collins et al., 2016), little attention has been paid to the psychological side of these injuries. In short, while many athletes may be physiologically recovered from this injury, their psychological recovery is largely unknown and ignored by clinicians. In the current symposium, we will examine key psychological issues associated with SRC from theoretical, practical and evidence-based perspectives. In the first presentation, we will describe and analyze new evidence for a theoretical framework from which to conceptualize, assess, and treat psychological issues following SRC. During the second presentation, we will examine qualitative research on the psychological experiences of athletes following SRC including anxiety, depression, suicide, social support, and coping. In the final presentation, we will discuss the role of psychological readiness in athletes who are returning to sport following SRC. We will focus on evaluating readiness, as well as implementing strategies for increasing readiness to enhance safer return to play following SRC. Following the presentations, an expert in psychological issues related to SRC will lead a discussion of the material presented in this symposium, including how sport psychology professionals can assist in athletes' recovery and rehabilitation. Throughout the symposium, we will present case examples involving concussed athletes with psychological issues following SRC and emphasize information that can help practitioners assess and manage athletes with these issues. Information from this symposium will help to inform better awareness, evaluation, and management of psychological issues following SRC to allow athletes to "get their head back in the game."

## **SYM-08A**

### **CONCEPTUALIZING, EVALUATING, AND TREATING ANXIETY/MOOD ISSUES FOLLOWING SPORT-RELATED CONCUSSION: EMERGING EVIDENCE**

*Anthony Kontos, University of Pittsburgh/Dept of Orthop, USA*

Following a sport-related concussion (SRC), many athletes experience psychological issues including anxiety and depression (Kontos et al., 2012). For most athletes, psychological symptoms and related issues are subclinical, transient, and resolve on their own. However, for certain athletes, issues may persist and have long-term consequences on recovery and return to sport (Sandel et al., 2014). Surprisingly, little is known about the prevalence of anxiety and mood-related issues following SRC and which characteristics are associated with these issues. In the current presentation, we will describe a clinical profiles-based approach to conceptualize and assess psychological issues that athletes may face following SRC such as anxiety and depression. In so doing, we will also evaluate new evidence for the prevalence of this evolving clinical profile in athletes following SRC, as well as the key components in the assessment of both anxiety and mood-related issues following this injury. Specifically, we will analyze findings involving 188 athletes with a SRC from a concussion specialty clinic. Our findings indicate that anxiety and mood issues are the most prevalent (28%) primary clinical profile and that a variety of pre- (e.g., anxiety/mood history, social isolation, somatization) and post- (mood-related symptoms, other clinical profiles) injury characteristics influence the occurrence of this clinical profile. We also report that the anxiety/mood profile may be associated with other profiles-particularly the vestibular profile-therby, having multiple etiologies that

should inform psychological and other treatment strategies. We will also discuss brief case examples, highlighting strategies for assessing these characteristics in athletes and how these findings can inform subsequent psychological-based treatment and referrals.

## **SYM-08B**

### **UNDERSTANDING OF PSYCHOLOGICAL ISSUES FOLLOWING SPORT-RELATED CONCUSSION THROUGH QUALITATIVE RESEARCH APPROACHES**

*Jeff Caron, Yale University, USA;  
Gordon Bloom, McGill University, Canada*

Much of the research on sport-related concussions has been developed through the lens of medical models and quantitative research designs. These trends stand to reason given that we are in the formative stages of learning about concussions in sport, so there is a need to generalize findings about rates and patterns of concussions across diverse athletic cohorts. Findings from quantitative studies have helped us to understand the types of psychological and emotional sequelae that concussed athletes may experience, such as irritability, anxiety, and depression. However, these quantitative data fail to illuminate how athletes experience concussions. Qualitative research approaches (e.g., narrative, phenomenology) provide scholars with the tools to provide a nuanced and detailed account of an individual's (or group of individuals') lived experiences, as well as the meanings they attach to such experiences (Sparkes & Smith, 2014). For instance, the manner in which concussion symptoms can impact athletic, professional, and personal spheres of an individual's life (e.g., Caron, Bloom, Johnston, & Sabiston, 2013), or how forced retirement from sport as a result of multiple or severe concussions can severely impact an athlete's identity and sense of self-worth (e.g., Caron, Schaefer, André-Morin, & Wilkinson, 2017). This presentation will provide an overview of a series of qualitative studies that we conducted with university and professional athletes that will illustrate how qualitative research approaches can complement and extend an understanding of psychological issues associated with concussions. From a practical standpoint, qualitative research approaches can be helpful in providing guidance, support, and recommendations for practitioners who are working with athletes suffering from this common and often misunderstood injury.

## **SYM-08C**

### **PSYCHOLOGICAL READINESS FOLLOWING SPORT-RELATED CONCUSSION: NEW DIRECTIONS TO EXPLORE**

*Les Podlog, University of Utah, USA;  
Jeff Caron, Yale University, USA;  
Gordon Bloom, McGill University, Canada*

Before returning to sport, formerly injured athletes must undergo evaluation to assess their physical readiness to resume competitive play. With respect to concussion, athletes are typically progressed through a graduated, symptom-based return to play (RTP) process. RTP is a process that is managed by healthcare professionals, which aims to progressively increase athletes' exertion until they are able to resume pre-concussive activity levels. Unfortunately, graduated RTP does not comprehensively account for an athlete's psychological readiness to return to competition. Although the construct

of psychological readiness among formerly injured athletes has gained empirical attention in the psychology of sport injury literature (Podlog, Banham, Wadey & Hannon, 2015), it has not yet been investigated in relation to concussions. Given that a lack of psychological readiness could lead to heightened competitive anxiety, hesitant performances, and greater risk of secondary concussion and orthopedic injury after returning to sport, insufficiently attending to concussed athletes' psychological readiness during RTP appears to be cause for concern and is worth examining. The purpose of this presentation is to explore potential implications of psychological readiness among formerly concussed athletes' intent to return to play. Guided by recent conceptual work (Caron, Bloom, & Podlog, 2018), the presentation highlights the need to: (1) fully explore and operationalize the nature of psychological readiness, (2) understand how previously concussed athletes can develop a state of readiness, and (3) better appreciate the implications-if any-of being psychologically prepared (or underprepared) for resumption of full RTP. Practically, a better understanding of psychological readiness can help coaches, allied healthcare professionals, and sport psychology practitioners to ensure that concussed athletes are psychologically ready to return to sport, better identify athletes who may not be ready, and develop a clearer understanding of how to increase psychological readiness among previously concussed athletes.

## **SYM-09**

### **OPTIMIZING ORGANIZATIONAL FUNCTIONING IN HIGH-PERFORMANCE SPORT: RESEARCH AND PRACTITIONER RECOMMENDATIONS FROM FIVE NATIONAL PERSPECTIVES**

*James Rumbold, Sheffield Hallam University, UK;  
Mark Eys, Wilfrid Laurier University, Canada;  
Frank Abrahamsen, Norwegian School of Sport Sciences,  
a Specialized University, Norway;  
Goran Kentta, The Swedish School of Sport and Health  
Science, Sweden;  
Joanne Butt, Sheffield Hallam University, UK;  
Shelby Carr, Sheffield Hallam University, UK;  
Peter Olusoga, Sheffield Hallam University, UK;  
Mark Surya, Wilfrid Laurier University, Canada;  
Karen Cogan, USOC, USA;  
Kristen Dieffenbach, WVU - Athletic Coaching Ed, USA*

The purpose of this symposium is to provide a multinational perspective from five different countries (Canada, Norway, Sweden, UK, USA) on managing work and organizational-related issues in elite sport organizations. Previous research has argued that optimizing performance and wellbeing in sport organizations requires a greater understanding of issues and processes that exist at organizational (e.g., governance, culture), inter-group (e.g., communication across teams and staff), intra-group (e.g., sub-group coordination and socialization), and individual levels (e.g., stress, burnout) (Fletcher & Wagstaff, 2009; Rumbold, Fletcher, & Daniels, 2018). Therefore, through the diversity of research and consultancy experiences presented, the symposium will offer a series of applied recommendations for optimizing the wellbeing and performance development of varying individuals and groups that operate in sport organizations. Presenter one will outline the findings and applied recommendations of research conducted with British elite coaches, performance directors and chief executives on the role of culture in managing



organizational change in sport. Presenter two will outline how the findings of research conducted on group dynamics (e.g., cohesion, role perceptions) with Canadian sport teams are relevant at varying levels of sport organizations, and, in other organizational performance contexts. Presenter three will share consultancy experiences of working with elite Norwegian coaches during coach education programs, and present research on how a coaches' performance development can be affected by an inability to deal with the media, the boardroom, and, the politics associated with these interactions. Presenter four will share some reflections on an ongoing collaboration between the sport confederation in Sweden and a mental health clinic designed to support the health and wellbeing of high-performance coaches. Finally, our two discussants, with applied experience of working with elite sport organizations in the USA, will stimulate an appraisal and discussion on strategies to optimize organizational functioning in high-performance sport.

### **SYM-09A**

#### **“THAT’S NOT HOW WE DO THINGS AROUND HERE”: THE ROLE OF CULTURE IN MANAGING CHANGE IN UK SPORT ORGANIZATIONS**

*James Rumbold, Sheffield Hallam University, UK;  
Joanne Butt, Sheffield Hallam University, UK;  
Shelby Carr, Sheffield Hallam University, UK;  
Peter Olusoga, Sheffield Hallam University, UK*

Organizational culture refers to the unique configuration of norms, values, beliefs, and ways of behaving that characterize the manner in which groups and individuals combine to get things achieved (Eldridge & Crombie, 1974, p. 78). Although previous research has argued that the successful leadership and management of individuals operating within sport organizations requires the creation and regulation of high-performance cultures (Fletcher & Arnold, 2011; Cruickshank, Collins, & Minten, 2015), limited research has identified the constituent elements of culture that may facilitate or hinder change management in sport organizations (Wagstaff, Gilmore, & Thelwell, 2015). The purpose of this research was to explore the role of culture in managing organizational change initiatives in UK sport organizations. Interviews (Mduration = 74.18 minutes, SD = 23.96 minutes) were conducted with 22 stakeholders (11 high-performance coaches, 9 national performance directors, 2 chief executive officers) across 18 different sports. These participants were either recipients or instigators of change management in their respective elite sport organizations. Thematic analysis procedures (Braun & Clarke, 2006) were utilized to categorize the findings in to cultural catalysts and obstructions of change in UK sport organizations. The cultural catalysts included shared assumptions, openness, collaborative learning, participatory approaches to change, trust, task cultures, and challenge cultures. The cultural obstructions to change included power differentials, fixed mindsets, a culture of rushed change, blame cultures, rigid structures, and person cultures. These findings highlight the important role that pre-existing and leader-created cultures can play in facilitating successful organizational change in sport. From an applied perspective, stakeholders in sport organizations should work hard to ensure that cultural catalysts are monitored and optimized, to ensure the health, wellbeing and performance development of those directly and indirectly involved in often uncertain organizational changes.

### **SYM-09B**

#### **GROUP DYNAMICS ACROSS SPORT ORGANIZATION CONTEXTS**

*Mark Eys, Wilfrid Laurier University, Canada;  
Mark Surya, Wilfrid Laurier University, Canada*

Group dynamics refers to the “actions, processes, and changes that occur within and between groups” (Forsyth, 2014, p. 2). Within a sport context, interventions and research studies have traditionally focused on issues pertaining to the interrelationships among athletes (e.g., cohesion), the structure underlying the team (e.g., roles, norms, leadership), and specific group processes (e.g., teamwork). However, recent reviews of literature encourage greater integration of group dynamics research across broad contexts (e.g., cohesion within sport and organizational psychology; Eys & Brawley, in press) and specific boundaries found within sport organizations (Martin, Eys, & Spink, 2017). With respect to the latter, for example, Martin and colleagues noted that shared knowledge, strategic consensus, and subgroup coordination are important issues to explore linking athletes, coaches, and management personnel within a sport organization. As a first objective, this presentation will briefly highlight literature supporting the contention that findings derived from research on sport teams are relevant at other organizational levels and in diverse contexts. Second, we provide a specific example of this integration in which we assessed role perceptions (e.g., role ambiguity, role satisfaction) in relation to important cognitive and behavioural outcomes (e.g., absenteeism; turnover/retention; organizational citizenship behaviours) in a large Canadian corporate setting. As part of a larger project exploring the development of employee engagement, responses from 1919 employees indicated that perceptions of role satisfaction were positively associated with organizational citizenship behaviours (i.e., pro-social behaviours that extend beyond one’s prescribed role responsibilities) and negatively predictive of the number of work days lost and staff turnover. Importantly, the measures assessing role perceptions were adapted from conceptual models and questionnaires developed with sport teams. Finally, future research directions and applied implications are discussed as they pertain to the larger social environment in sport organizations integrating athletes, coaches, and management.

### **SYM-09C**

#### **SURVIVAL OF THE (POLITICALLY) FITTEST?**

*Frank Abrahamsen, Norwegian School of Sport Sciences, a  
Specialized University, Norway*

This talk discusses experiences from recent research and interaction with coaches during elite coach education programs, as well as applied sport psychology consultancy with more than 50 national teams over the last two decades. Working as an elite coach is often stressful (Norris, Didymus, & Kaiseler, 2017). Performance results of sport performers and teams clearly affect opportunities to continue a coach career. The present presentation will outline a series of recently conducted studies with coaches on their experiences of managing work and organizational issues in sport. In one study to be presented, one of the coaches talks about avoiding “dying”, either from a lack of positive performance results and public support or from not handling group dynamic issues with a sport team. In another study, one very experienced premier league soccer coach discussed how a lack of loyalty from

their assistant coach led them to form greater cynicism and a need to trust others before including them in their coaching work. When sharing research and experiences like these to high-level coaches, their feedback is that this is something they should have discovered a lot earlier in their career. Being able to handle the sport is important. However, managing the political game of working in elite sport is generally lacking in research and education. Most attention is on how coaches affect their athletes. However, coaches ask for more knowledge of and training in how to handle issues that deal with the media, the boardroom, co-workers and sponsors. This talk will first present some recent research on these issues, before portraying personal Olympic and World Championship examples where such issues have affected both a coach's career and their athletes' performance negatively. The talk ends with some future research suggestions, and applied recommendations for sport psychologists and organizations.

## **SYM-10**

### **COLLEGE STUDENT-ATHLETE MENTAL HEALTH: FROM SCREENING TO PREVENTION TO TREATMENT**

*Erin Albert, University of North Texas, USA;*  
*Kristina Clevinger, University of North Texas, USA;*  
*Jenna Tomalski, University of North Texas, USA;*  
*Trent Petrie, University of North Texas, USA;*  
*Courtney Albinson, Northwestern University, USA;*  
*Christopher Bader, University of Colorado-Boulder, USA*

Recently, the NCAA and collegiate athletic departments have increased their attention on student-athletes' mental and emotional well-being. Research on student-athlete mental health indicates that 21% and 28%, respectively, of male and female athletes experience depression, and 30% to 50% report anxiety related concerns (NCAA, 2014). Moreover, nearly 40% of males and 54% of females report being dissatisfied with their weight (Greenleaf, Petrie, Carter, & Reel, 2009; Petrie, Greenleaf, Reel, & Carter, 2008). Given this high prevalence, in 2016, the NCAA published a consensus document for best practices in mental health care, highlighting the importance of cultivating a health-promoting environment supporting student-athlete well-being, and developing procedures for pre-participation mental health screening and referral of student-athletes to licensed mental health providers. In this symposium, we will discuss how three different universities are addressing different aspects of the NCAA's consensus statement. In the first presentation, we will discuss pre-participation mental health screening. Specifically, we will discuss the development, implementation, and empirical evaluation of one university's mental health screening process for student-athletes. In the second presentation, we will address the topic of prevention and treatment, in particular how a sport psychologist within a university's athletic department works to create an environment that supports student-athlete well-being through education and a treatment team approach. In the third presentation, we will discuss mental health treatment. Specifically, we will present a model of treatment in which sport psychologists based within the university's counseling center provide services for the school's student-athletes. As a discussant, a licensed sport psychologist working in a collegiate athletic department will reflect on her experiences coordinating mental health services and how the topics raised in the symposium reflect the NCAA's best practices.

## **SYM-10A**

### **COUNSELING SPORT PSYCHOLOGY: A COMPREHENSIVE APPROACH TO SCREENING AND TREATING STUDENT-ATHLETES**

*Erin Albert, University of North Texas, USA;*  
*Kristina Clevinger, University of North Texas, USA;*  
*Jenna Tomalski, University of North Texas, USA;*  
*Trent Petrie, University of North Texas, USA*

A best practice outlined by the NCAA to support student-athlete mental wellness on campus is the development and implementation of pre-participation mental health screening (NCAA, 2016). The need for such screening is supported by the high prevalence of mental health concerns among college student athletes and allows proactive steps to be taken to remediate problems early in their existence. In this presentation, we will discuss the development and implementation of a mental health screening process. Specifically, we will focus on the specific steps of our screening process, including the development and administration of the mental health screener, follow-up and referral practices, as well as statistical analysis of screener results. The mental health screener includes items that assess athletes' mental health, body image and physical concerns, athletic performance impacted by psychological states, learning disabilities, and previous counseling experience. At the beginning of each team's athletic season, we coordinate team meetings to deliver an interactive mental health presentation and administer the screener. Sport psychology consultants will then schedule a 20 to 30-minute meeting with athletes who have endorsed any of the critical or "high-risk" items or a high frequency of items. Based on the obtained information, the consultant will make appropriate recommendations, referrals, and/or provide additional resources. In addition to reflecting on our screening process, we will discuss how audience members and their colleagues may adopt and implement a similar process at their own institutions.

## **SYM-10B**

### **EMBEDDED IN ATHLETICS: THE UNIQUE BENEFITS AND CHALLENGES TO PREVENTION AND TREATMENT**

*Christopher Bader, University of Colorado-Boulder, USA*

Given the other tenants of this symposium and NCAA recommendations for access to services, talking about the growing set-up wherein Sport Psychology Consultants (SPCs) are embedded as part of an athletics department is necessary. Each year a growing number of athletic departments are hiring full-time psychologists with sport psychology training to be part of their department while serving the unique needs of student-athletes. As SPCs embedded in athletic departments, it is imperative that our profession and field examine how best to prevent issues in problem areas and treat student-athletes for an increasing number of psychological concerns. This presentation will present educational efforts and a multidisciplinary approach taken at a Division I athletic department. Specifically, the presenter will discuss educational and prevention efforts aimed at derailing issues before they become problems. Efforts for first-year student-athletes are influenced by psychological, career, and leadership principles, including issues around healthy transitions, alcohol and other drugs, and general mental health concerns. Preventative efforts also include our engagement of student-athletes via message

monitors throughout our department, and through individual, small group, and team meetings. Further, this presentation will discuss our treatment approaches involving the multidisciplinary team utilized within the athletic department. In our setting, we have medical, dietetics and nutrition, strength and conditioning, and psychological services under one umbrella (Health and Performance). We also have a targeted treatment group where individual athletes struggling in specific areas of functioning are discussed. Because of this set-up, the psychological service providers must be aware of communication lines and appropriate sharing of information. Unique benefits and challenges to our setting will be examined.

## SYM-10C

### INTEGRATED HEALTH CARE IN COLLEGE ATHLETICS: COLLABORATION BETWEEN CAMPUS COUNSELING AND SPORTS MEDICINE SERVICES

*Courtney Albinson, Northwestern University, USA*

NCAA best practices to support student-athlete mental health recommend that practitioners providing mental health care to athletes be clinically licensed and that universities implement procedures for the proper identification and referral of athletes to such practitioners (NCAA, 2016). This focus on student-athlete mental health has led to universities creating different models of mental health care and new positions for sport psychologists. Many universities have been increasing their mental health services for student-athletes via the creation of university counseling center positions embedded within athletics departments. These positions allow sport psychologists to rely upon the structure and resources of the primary student mental health service on campus while tailoring their services to the unique needs of the student-athlete population and athletic stakeholders. This presentation will provide an overview of this model of student-athlete mental health care at a mid-sized, private university in a Division I athletic conference. The focus will be on factors that increase successful identification, referral, treatment, and crisis intervention with student-athletes who have mental health conditions. Specifically, the importance of close collaboration with athletic trainers, sports medicine physicians, psychiatrists, and sports dietitians in the management of mental health will be highlighted, including procedures for referral, ongoing consultation to enhance care, and use of multidisciplinary treatment teams for case consultation. Additional interventions that affect student-athletes' sport participation, such as referral to a higher level of care, medical leave of absence, and management of mental health emergencies also will be discussed.

## SYM-11

### SOCIOCULTURAL ASPECTS OF SPORT INJURY AND RECOVERY

*Diane Wiese-Bjornstal, University of Minnesota, USA;*  
*Francesca Principe, University of Minnesota, USA;*  
*Kristin Wood, University of Minnesota, Minneapolis, USA*

The sociocultural aspects of sport injury and recovery include the broad landscape of social beliefs, climates, processes, cultures, institutions, and societies that surround the full chronological spectrum of sport injury outcomes ranging from risk through rehabilitation and retirement (Wiese-Bjornstal,

2010; 2018). The purpose of this symposium is to summarize theory, research, and professional practice implications derived from a review of literature on the sociocultural aspects of sport injury. This topic is of significance to researchers and practitioners in sport psychology because of the effects of these social influences on the health, well-being, and performance of athletes before, during, and after sport injuries. A social ecological view of research on this topic demonstrates that sociocultural influences affect sport injury outcomes via interrelated sport systems extending from the intrasystem (i.e., within person) through the microsystem (i.e., interpersonal relationships), mesosystem (i.e., institution), exosystem (i.e., sport governing bodies), and macrosystem (i.e., national or global society) (Wiese-Bjornstal, 2016; 2018). In order to describe the nature and influence of these sociocultural aspects and their relevance for research and professional practice in sport psychology, this symposium consists of three interrelated presentations. The first presentation includes a historical review of conceptual models and theoretical approaches related to the sociocultural aspects of sport injuries, such as the sport ethic (Hughes & Coakley, 1991), the culture of risk (Nixon, 1992), and the pain principle (Sabo, 2009). The second presentation discusses examples of scholarly literature illustrating evidence-based research findings concerning the sociocultural aspects of sport injuries, such as conformity to injury norms, faking injuries to gain competitive advantage, and the economic costs to society. In the third presentation, the focus is on providing examples of sociocultural interventions relevant to the work of sport psychologists and sports medicine providers, such as encouraging health behavior change and developing cultural competence.

## SYM-11A

### THEORIES ABOUT THE SOCIOCULTURAL ASPECTS OF SPORT INJURY AND RECOVERY

*Diane Wiese-Bjornstal, University of Minnesota, USA*

Hughes and Coakley's (1991) sport ethic reflected an ethos evident in high performance sport cultures that can be characterized by norms that include accepting sport risks and playing through pain to prove oneself a true athlete. The processes of embracing these norms include positive deviance and overconformity in which extreme and unhealthy behaviors, such as abusing medications to mask injury pain or exceeding the intensity of prescribed rehabilitation exercises when medically contraindicated (Beneditti, Pollo, & Colloca, 2007), are routinely utilized. Examinations of risk taking and the culture of risk (Nixon, 1992) represent a similar line of sociocultural inquiry that is directly relevant to understanding athlete's willingness to accept injury and risk sustaining more devastating injuries by competing when injured, again, for the sake of athletic identity and competitive sport achievement (Frey, 1991). Inherent within this culture of risk are the pressures from within the social network of sport on athletes to play when injured and thus risk further or more serious injury in pursuit of victory (Safai, 2003). A sociophilosophical understanding of these attitudes within sport is reflected in the pain principle, defined as "a patriarchal cultural belief that pain is inevitable and that the endurance of pain enhances one's character and moral worth" (Sabo, 2009, p. 146). The biopsychosocial sport injury risk profile (Wiese-Bjornstal & Shaffer, 1999) focuses on the interaction of intrinsic biological and psychological characteristics of the athlete with the extrinsic physical and sociocultural characteristics of the sport environments. Sociocultural aspects of the sport

environment that affect these risk profiles, including social resources, social pressures, game rules, etiquette of sport, medical interactions, organizational stressors, officiating standards, sport norms, sport ethic, coaching quality, cultural context, and media scrutiny (Wiese-Bjornstal, 2010). These theories have guided empirical research examining the sociocultural aspects of sport injury and recovery.

## **SYM-11B**

### **EMPIRICAL RESEARCH ABOUT THE SOCIOCULTURAL ASPECTS OF SPORT INJURY AND RECOVERY**

*Francesca Principe, University of Minnesota, USA;  
Diane Wiese-Bjornstal, University of Minnesota, USA*

Most aspects of sport injuries, are fundamentally as much social and cultural in nature as they are personal. Whether examining them from the perspective of social psychology, where the influence of social processes on individual psychology is relevant, or the perspective of sociology, where the examination of social institutions and cultures rise to the forefront, social influences are evident. Since the early 1990s, sport scientists have contributed a significant body of theory and literature related to the sociocultural aspects of sport injury (e.g., Curry, 1992; Nixon, 1993; Wiese-Bjornstal, 1998). Sociocultural themes such as the normative expectations surrounding playing with pain and injury, socialization of athletes into the cultures and norms of risk and sacrifice, gendered expectations about injury behavior, and the role of audiences and significant others in affecting pain and injury responses continue to be evident in the literature on these topics (Wiese-Bjornstal, 2018). Specific examples of sociocultural themes evident in research literature include personal conformity to the cultural expectation to play hurt (Madrigal, Robbins, Gill, & Wurst, 2015), social conventions of behavior when sport injuries occur (McNamee, 2009), institutional character or ethics when making return to play decisions (Kelly & Waddington, 2006), guidelines for the health care of athletes prescribed by sport governing bodies (Soligard et al., 2016), and the economic costs to society for sport injuries (Cumps, Verhagen, Annemans, & Meeusen, 2008). Even personal constructs such as mental toughness, widely considered a positive attribute in athletes, can prove hazardous to athlete health in the context of sports injuries (Cavallerio, Wadey, & Wagstaff, 2016). This literature shows that many sport injury outcomes are affected by these sociocultural influences, such as the risks of sport injuries, rehabilitation processes, and career terminations.

## **SYM-11C**

### **SPORT PSYCHOLOGIST AND SPORTS MEDICINE PROVIDER INTERVENTIONS REGARDING THE SOCIOCULTURAL ASPECTS OF SPORT INJURY AND RECOVERY**

*Kristin Wood, University of Minnesota, Minneapolis, USA;  
Diane Wiese-Bjornstal, University of Minnesota, USA*

Professional practice domains in sport psychology and sports medicine can benefit from consideration of sociocultural interventions related to sport injury and recovery. Examples of these interventions relate to rule and behavior changes, health care decision making, social support, and social media strategies. Debate from both sides of the arguments about whether to substantively change (e.g., via rule changes) or even ban high injury risk sports continues (Lopez Frias & McNamee,

2017; Wiese-Bjornstal, 2018). Traditional attitudes about the nature of sports and social change, however, highlight the difficulties in adopting protective rule changes (Adams, Mason, and Robidoux, 2015; Smith et al., 2015). Anderson (2007) argued for the necessity of balancing individual autonomy in decision making regarding risks associated with health care decisions regarding sport injuries with the obligation for some level of paternalism (i.e., health care providers deciding what is best) in medical decision making. However, the price of athlete autonomy to engage in risky sporting events and to play with pain and injuries is not without consequences to society, such as the financial burdens associated with medical care (Wiese-Bjornstal, 2018). Meanwhile, sport psychologists and sports medicine providers, in conjunction with injured athletes, are uniquely placed in positions of influencing sociocultural aspects of sport injury in efforts to improve overall recovery outcomes. Current and emerging evidence-based interventions include social support to promote healing outcomes through post-injury education, rehabilitation adherence, and enhancing return to play confidence (Fernandes et al., 2014), respecting individual and cultural differences throughout injury prevention and rehabilitative care, and the evolving roles of digital social media technologies and other marketing, media, and promotions strategies to disseminate injury education on the relative risks and management of sport-related injuries (e.g., concussions; Williams et al., 2014) or the importance of wearing protective equipment (Newton, Ewing, & Finch, 2013).

## **SYM-12**

### **INSIGHTS FROM CASE STUDY EXAMPLES ON SUCCESSFUL STIMULATION OF KNOWLEDGE IMPLEMENTATION: HELPING CANADIAN HIGH PERFORMANCE ATHLETES THROUGH EVIDENCE-BASED RESEARCH**

*Sharleen Hoar, Canadian Sport Institute-Pacific, Canada;  
Bradley Young, University of Ottawa, Canada;  
Joe Baker, York University, Canada;  
Mike Frogley, Wheelchair Basketball Canada;  
Rafael Tedesqui, University of Ottawa, Canada;  
Lindsay McCardle, University of Ottawa, Canada*

A network of centres and institutes across the provinces, labeled Canadian Olympic and Paralympic Sport Centres and Institutes Network (COPSIN) are charged with the development of high performance sport in Canada. This is accomplished through three primary mechanisms including: Applied practice and service delivery to user groups (such as athletes and coaches), research and innovation, and coaching development. Despite the “political enthusiasm” there is evidence that the uptake of research evidence to drive NSO policy is limited (Holt, Pankow, Camiré, Côté, Fraser-Thomas, MacDonald, et al., 2018). For research implementation to be successful, there needs to be clarity about the nature of the evidence being used, the quality of the context, and the type of facilitation need to ensure a successful change process (Holt et al., 2018). The purpose of this symposium is to present key learning from case examples of successful knowledge integration from a meaningful partnership among academic researchers and applied practitioners interested in working in Canadian high performance sport. A series of presentations will inform and explore (a) strategies for building meaningful relationship to overcome challenges to sport psychology research and innovation work within the COPSIN network, (b) the nuances of carrying out research with a high performance sport population including research ethics, (c) the incorporation of

practical validity in applied research, and (d) the factors that facilitate and limit knowledge integration of sport psychology research and innovation for Canadian high performance user groups. The intent of the symposium is build upon the growing body of research examining successful knowledge integration of evidence-based sport psychology for future projects in high performance sport.

## **SYM-12A**

### **BUILDING THE BRIDGE FOR KNOWLEDGE INTEGRATION AND EVIDENCE-BASED PRACTICE WITHIN THE CANADIAN OLYMPIC AND PARALYMPIC SPORT INSTITUTE NETWORK**

*Sharleen Hoar, Canadian Sport Institute-Pacific, Canada*

The Canadian Olympic and Paralympic Sport Institute network (COPSIN) seeks to provide a world-class, multi-sport daily training environment for athletes and coaches through expert leadership, services, and programs. Along with world leading applied service provision, sport psychology practitioners are mandated to align service delivery closely with performance-led research that aims to better understand specific gaps and achieve breakthroughs in training science, maximizing competitive performance, and improve athlete mental health and wellbeing. The purpose of this presentation is to share and reflect on the author's opportunities and challenges to meet this mandate as it relates to financial compensation and funding, practitioner role clarity and ethics, and the scope of practice. The intent is to highlight the strategies in forming collaborative and meaningful partnerships for research and innovation that promote knowledge integration of applied sport psychology among user groups (athletes and coaches) in the high performance context.

## **SYM-12B**

### **HOW DYNAMIC INTERACTIONS AND NEGOTIATIONS WITH PRACTITIONERS HAVE INFORMED OUR RESEARCH ON SELF-REGULATED LEARNING IN SPORT**

*Bradley Young, University of Ottawa, Canada;  
Lindsay McCardle, University of Ottawa, Canada;  
Rafael Tedesqui, University of Ottawa, Canada;  
Joe Baker, York University, Canada*

This presentation focuses on lessons learned regarding how to do research with high performance national sport organizations, and how interactions with organizational representatives and practitioners have shaped our work. Through the lens of our research program on elite athletes' self-regulated learning processes for quality practice in sport, we discuss efforts to negotiate 'best approaches' in light of many empirical and organizational constraints on the research process. This process has been dynamic, whereby we have tried to remain faithful to our research requirements while sensitizing ourselves to the realities of organizations and practitioners. For example, our initial entry into the research involved wholesale marketing of the value of our program and its instrumentality for national sport institutes, their mental performance consultants (MPCs), coaches, and athletes. This marketing varied depending on the needs of particular target organizations and their embedded sport science teams, requiring us to be sensitive to our status as 'outsiders' and to negotiate with applied scientists within the organizations. At times, this entailed awkward self-promotion to guarantee deliverables to the organizations as well as the delicate sharing

of information to get buy-in, without affecting our study objectives. Additionally, we describe how discussions with lead MPCs sensitized us to challenges in recruitment. Having MPC buy-in was important for legitimacy, determining key time points for data collection, and for recruiting sufficiently large sample sizes; however, this strategy introduced ethical considerations around inviting athletes to participate and commensurate changes to our methodology. Relationship building and regular meetings with lead practitioners were important throughout the process. Consequently, we describe how ongoing dialogue informed changes to the language and face validity of our methodological protocol. Finally, we discuss the importance of providing meaningful feedback to organizations. We particularly illustrate how we tried to balance practitioners' preferences for timely, usable results with empirical design concerns.

## **SYM-12C**

### **BALANCING STATISTICAL AND PRACTICAL VALIDITY WHEN WORKING IN ELITE SPORT**

*Joe Baker, York University, Canada;  
Bradley Young, University of Ottawa, Canada,*

Scientists and researchers working in high performance sport settings regularly have to decide how to balance the statistical requirements of rigour and generalizability with practical necessities of applicability and relevance. This balance is not easy since work in elite settings often involves working with necessarily small samples in unique developmental environments that may have limited relevance to any other sample outside of this context. In this presentation we discuss our experiences as scientists based in academia working with high performance Canadian teams and the difficulties that can arise when working within these two different contexts. For example, a recent series of studies exploring pathways of athlete development had to decide whether to a) limit the level of skill in the elite group to increase the relevance of this group to explaining the development of truly elite performers or b) decrease the level of skill among those in the elite group in order to increase the number of athletes in their group and therefore increase statistical power. Similarly, a recent project that aimed to balance empirical and practical outcomes noted a number of differences in the construction of a Self-Regulated Learning scale, ultimately deciding that while the differences may have some relevance for psychometrics and model-building, they had limited 'real world' relevance. As the number of researchers and scholars working in high performance settings increases, due to the uptake of, and need for, 'cutting edge' research, concerns of practical validity will increase in relevance. Understanding the costs and benefits of different approaches to issues of 'validity' in high performance settings will go a long way to ensuring balance between empirical and practical concerns.

## **SYM-12D**

### **DISCUSSANT: HIGH PERFORMANCE COACH PERSPECTIVE ON KNOWLEDGE INTEGRATION IN CANADIAN HIGH PERFORMANCE SPORT**

*Mike Frogley, Wheelchair Basketball Canada, Canada*

A high performance coach working within the Canadian Olympic and Paralympic Sport Institute Network (COPSIN), and independent from the collaborative academic research and applied consultant team, will discuss the key points, from earlier presentations, in relation to his experiences within the

Canadian high performance sport system. Reflecting on his background working with a range of sport science researchers and practitioners, the discussant will reflect on challenges to knowledge integration. Practical and actionable strategies will be identified to facilitate meaningful uptake of sport psychology research by high performance user groups, such as coaches and athletes working within the COPSIN network.

## **SYM-13**

### **ENHANCING PRACTITIONER EFFECTIVENESS: STRATEGIES FOR DEVELOPING, IMPLEMENTING, AND EVALUATING SPORT PSYCHOLOGY INTERVENTIONS**

*Graig Chow, Florida State University, USA;*  
*Duncan Simpson, IMG Academy, USA;*  
*Eric Bean, HigherEchelon, INC, USA*

Sport psychology is an interdisciplinary field where practitioners often translate knowledge from sport sciences, psychology, ethics, diversity and culture, and research methods and statistics into applied practice. Clinical and counseling psychology are ripe with evidence-based manualized treatments that practitioners can use to assist clients with specific presenting concerns (e.g., Cognitive Behavioral Therapy for Depression, Dialectical Behavior Therapy for Borderline Personality Disorders). In contrast, there are a lack of intervention protocols in sport psychology and most intervention studies lack sufficient detail for practitioners to follow and implement with their athletes. As a result, sport psychology practitioners must be competent in designing interventions guided by theoretical frameworks and empirical findings while also considering consultant philosophy (Poczwadowski, Sherman, & Ravizza, 2004) and client needs. In addition, the way in which the intervention is delivered is of equal importance to how it was developed. Striving toward evidence-based practice then requires systematic evaluation to determine the extent to which the intervention was effective and for what specific psychological and behavioral outcomes. The purpose of this symposium is to discuss best practices in the development, implementation, and evaluation of sport psychology interventions. Three certified mental performance consultants – who work in sport academy, private practice, and university settings – will collectively share key principles and methods for each of the three stages. The first presentation will focus on how to develop interventions including assessment, case conceptualization, client background and goals, and consultant factors. The second presentation will discuss the art and science of implementation by incorporating common factors and using formative assessment. The third presentation will introduce a conceptual model that can be used to evaluate intervention effectiveness using multisource methods as well as objective and subjective evaluation. A case example will be used throughout the three presentations to demonstrate the applicability of key principles and methods.

## **SYM-13A**

### **DEVELOPMENT OF SPORT PSYCHOLOGY INTERVENTIONS**

*Duncan Simpson, IMG Academy, USA;*  
*Eric Bean, HigherEchelon, INC, USA;*  
*Graig Chow, Florida State University, USA*

As the professional status of the sport psychology field continues to grow practitioners must engage in new levels of accountability and responsibility regarding the development, implementation, and evaluation of interventions (Anderson

et al., 2002; Rowell, 1998; Smith, 1989). To maximize the effectiveness of sport psychology interventions, mental performance consultants should develop them systematically and logically (Abbott & Collins, 2004). This part of the symposium will focus on the development process of interventions while addressing three key areas 1) consultant philosophy; 2) client background; and 3) assessment of client needs. Poczwadowski, Sherman, and Henschen (1998; 2002) have argued that a clear professional philosophy should drive the entire consulting process. In particular, issues of “gaining entry, assessment, conceptualization of the issue and the intervention, implementation, evaluation, and bringing closure to the consulting relationship” (Poczwadowski et al., 2002, p. 446) are all impacted by professional philosophy. While professional philosophy provides the framework for the consulting process, each client(s) are different and need to be treated in an individualistic manner. For example, research has suggested that variables such as age, gender, cultural background, intellectual/emotional maturity, sport type, time of season, motivational orientation, language ability, and marital status will impact on the type and effectiveness of interventions (Hays et al., 2007; Omi & Winant, 2015; Taylor, Simpson, & Brutus, 2018; Voight, 2014). Lastly, the consultant’s professional philosophy, as well as the background information of the client, will undoubtedly inform the types of assessments he or she will conduct. Without reliable and valid assessments consultants will embark on an intervention journey without having a clear understanding of their client’s needs (Taylor, 2018). Ultimately, appropriate interventions should evolve from an extensive, systematic, and rigorous assessment period (Beckmann & Kellmann, 2003).

## **SYM-13B**

### **IMPLEMENTATION OF SPORT PSYCHOLOGY INTERVENTIONS**

*Eric Bean, HigherEchelon, INC, USA;*  
*Graig Chow, Florida State University, USA;*  
*Duncan Simpson, IMG Academy, USA*

The first part of this symposium focuses on considering the consultant’s philosophy, client background, and client needs to develop a systematic and logical intervention (Abbott & Collins, 2004; Poczwadowski, Sherman, & Henschen, 1998). This part will build off of the developmental phase and discuss the process of implementing an intervention. The act of implementing a sport psychology intervention is a combination of both art (Ogilvie & Henschen, 1995; Poczwadowski, et al., 1998) and science (e.g., Poczwadowski & Sherman, 2011). While interventions in a research setting are designed to adhere to a strict protocol in order to demonstrate that the intervention, and only the intervention, caused change; interventions in a practice environment embody more of an art form (rather than scientific rigor) in order to account for the dynamic nature of client variables and needs. That said, researchers in both sport psychology (e.g., Petitpas, Giges, & Danish, 1999) and other counseling modalities (Luborsky, 2002; Wampold, 2015) have demonstrated that common factors (e.g., consultant–client relationship, working alliance, expectations, rapport, and trust) are more potent in determining treatment outcomes than theoretical orientation and intervention protocol. Therefore, this portion of the symposium will have three main components. First, we’ll examine the art and science of establishing a productive consultant–client relationship, creating positive expectations, and building rapport. Secondly, we’ll discuss the fact that an intervention is a process and not a snapshot in time, therefore

the consultant must manage the client's motivation and adherence to homework. Lastly, we'll discuss the importance of intertwining evaluation (as opposed to only pre and post measures) throughout the intervention to examine changes in skill, knowledge, usage, and impact. Intertwining evaluation offers objective and subjective data to identify and make any necessary intervention adjustments.

## **SYM-13C**

### **EVALUATION OF SPORT PSYCHOLOGY INTERVENTIONS**

*Graig Chow, Florida State University, USA;  
Duncan Simpson, IMG Academy, USA;  
Eric Bean, HigherEchelon, INC, USA*

Systematic evaluation of interventions and programs is an important professional practice issue in sport psychology. Evaluation is a cornerstone of ethical, competent, and effective practice. Documenting the effectiveness of consultation is essential in determining the extent to which the intervention is producing its expected impact, as well as in making decisions regarding whether modification or termination is necessary (APA, 2017). In addition, evaluation increases accountability to stakeholders and the profession (Anderson, Miles, Mahoney, & Robinson, 2002). In this presentation, a multicomponent conceptual model is introduced that can assist sport psychology practitioners with evaluating the effectiveness of their applied work. Assessment of adherence, self-efficacy, and perceived ability in psychological methods will be discussed, along with measures of psychological mediators and indicators of behavior. Indicators of effectiveness must be directly linked to client-specific objectives, which are informed by initial assessment conducted by the practitioner. Multisource methods (e.g., client, coach, supervisor, self) as well as objective and subjective evaluation will be reviewed including their strengths and limitations (Martindale & Collins, 2007). For example, standardized consultant evaluation forms, case studies, and reflective practice. As evaluation can occur at the session, intervention, or program level, targeted and practical approaches will be advanced. Evaluation of interventions and programs and subsequent dissemination efforts is needed for the field of sport psychology to continue to flourish.

## **SYM-14**

### **MALTMETMENT IN SPORT: IMPLICATIONS FOR THE FIELD OF SPORT PSYCHOLOGY**

*Gretchen Kerr, University of Toronto, Canada;  
Ashley Stirling, University of Toronto, Canada;  
Erin Willson, University of Toronto, Canada;  
Alexia Tam, University of Toronto, Canada*

The recent and highly publicized cases involving the sexual abuses of athletes brings to the forefront questions about the roles and responsibilities of adults in sport, including sport psychologists, to prevent and to intervene in situations in which athletes are being harmed or are at risk of being harmed. We argue that these cases of sexual abuse in sport are inextricably linked with the broader #MeToo movement which not only highlights the occurrence of sexual harassment and abuse in various domains but also the complicity of other adults who ought to have intervened in situations in which they either knew or suspected misconduct. The overall purpose of this symposium is to advance our understanding of maltreatment in sport and the role of the sport psychology consultant in

safeguarding others from harm. The first presentation will address the findings from interviews with coaches about their responses to the #MeToo movement and the perceived implications of this movement on their relationships with athletes. The second presentation will address the research on sexual abuse in sport and expand this focus to include the most prevalent form of maltreatment in sport – that of emotional abuse. For sport psychologists to prevent and intervene in cases of athlete maltreatment, they should receive education on the topic. Therefore, the third presentation will review the findings of a study designed to identify the extent to which graduate programs in sport psychology include curriculum content on athlete maltreatment and safeguarding. And the final presentation will address the roles and responsibilities of sport psychology consultants in safeguarding athletes from harm including the ability to recognize maltreatment, act upon the AASP Code of Ethical Principles and Standards to ensure the welfare of athletes, and to see performance enhancement and safeguarding as inextricably linked.

## **SYM-14A**

### **COACHES' RESPONSES TO THE #METOO MOVEMENT: IMPLICATIONS FOR THE COACH-ATHLETE RELATIONSHIP**

*Alexa Tam, University of Toronto, Canada*

The culture of silence around issues of sexual abuse is being challenged with the current #MeToo and Times Up movements encouraging victims of sexual assault to speak out about their experiences. Although #MeToo was initially focused on sexual harassment in the workplace, cases of sexual violence in sport are being shared, with predictions that a wave of accusations against prominent sport authority figures will continue to emerge (Gregory, 2017). Although the coach-athlete relationship is fundamental to the process of coaching, achieving such a level of closeness can lead to suspicions of bad intentions (Jowett & Cockerill, 2003). The purpose of this research was to explore coaches' reactions to the #MeToo movement in sport and the influence of this movement on their perspectives of their relationships with athletes. Semi-structured interviews were conducted with 12 coaches (8 male; 4 female) from a range of sports and sport levels. Interviews were transcribed verbatim and analyzed using a combination of inductive and deductive coding techniques. Findings of the study showed that coaches were supportive of the #MeToo movement but that it has increased fears of misallegation of sexual misconduct. Recommendations are posed for ways in which sport psychology consultants may support both coach and athlete welfare while fostering the close coach-athlete relations that are essential to performance success.

## **SYM-14B**

### **BEYOND SEXUAL ABUSE: UNDERSTANDING RISK FOR ATHLETE MALTMETMENT**

*Ashley Stirling, University of Toronto, Canada*

Research on maltreatment in sport initiated in the UK in the mid 1980s from media case of sexual abuse and harassment in sport (Brackenridge, 2001). Since this time, a wealth of research has been conducted on the risk of athletes to experiences of harm, and the breadth of forms of harm an athlete may experience, including sexual, physical and emotional maltreatment (Stirling, 2009). Unfortunately, there has been a number of high profile cases of athlete abuse reported recently in the media, highlighting the need and

responsibility of all sport professionals to safeguard athletes from harm within the sport environment. In Canada, former Alpine Canada women's coach Bertrand Charest was recently sentenced to 12 years in prison for the sexual assault of nine teenage skiers, and in the USA Larry Nassar, a doctor who treated athletes for both USA Gymnastics and Michigan State University, was recently sentenced to 60 years in prison for the abuse of more than 150 girls and women. Of particular concern regarding the Nassar case were comments from some athletes that the emotional abuse experienced from their coach in their day to day training influenced perspectives of their interactions with the team physician as well as their inclination to disclose. In this presentation, current research on sexual, physical and emotional abuse in athletes' relations with authority figures will be reviewed with a focus on why it occurs and known risk factors. The role of the sport psychologist in intervening in cases of maltreatment will be discussed.

## **SYM-14C**

### **WHERE IS SAFEGUARDING CONTENT WITHIN SPORT PSYCHOLOGY GRADUATE PROGRAMS?**

*Erin Wilson, University of Toronto, Canada*

According to professional codes of conduct and ethics (e.g. AASP, APA, CPA), sport psychology consultants have a responsibility for the safeguarding of young athletes from harm, including maltreatment. Given this responsibility, it is important for graduate students in sport psychology programs to be educated about maltreatment. More specifically, graduate students should have the content knowledge to recognize various forms of maltreatment including sexual, physical and emotional abuse, and neglect, as well as the competencies required to prevent and intervene in cases where athletes are experiencing or are at risk of experiencing harm. The professional responsibilities of AASP members, along with previous findings (Stirling & Kerr, 2010) indicating that sport psychology consultants desired further education about maltreatment, suggests this is an important area of focus. The purpose of this study therefore was to explore the extent to which sport psychology graduate programs include curriculum content on safeguarding athletes from maltreatment. To pursue this question, 25 sport psychology course outlines from Canadian and U.S. graduate programs were obtained and reviewed for content specific to maltreatment. The findings revealed that although course outlines frequently included topics of ethics, professional issues and/or codes of conduct, a specific focus on issues of athlete maltreatment and safeguarding was notably absent. A review of the assigned course readings also indicated an emphasis on topics related to performance enhancement strategies and an absence of maltreatment and safeguarding-related readings. Recommendations are made to strengthen graduate education in sport psychology programs through further integration of content pertaining to safeguarding.

## **SYM-14D**

### **THE ROLE OF THE SPORT PSYCHOLOGY CONSULTANT IN SAFEGUARDING ATHLETES FROM MALTREATMENT**

*Gretchen Kerr, University of Toronto, Canada*

Guided by the AASP Code of Ethical Principles and Standards, sport psychology consultants are responsible for ensuring the dignity and welfare of individuals served. According to the General Ethical Standards, AASP members are to 'take reasonable steps to avoid harming others with whom they work, and to minimize harm where it is foreseeable and unavoidable.' Given the rapport and close relationships often established between sport psychology consultants and athletes, the sport psychology consultant may be privy to very personal and sensitive information, including the possibility that the athlete is experiencing maltreatment. The recent, highly publicized cases of sexual abuse of athletes in sport brings to the forefront the importance of all professionals in positions of responsibility over young people to exercise the ethical principles and standards of their professional associations. This presentation will specifically address the role of sport psychology consultants in safeguarding young athletes from harm, including the importance of recognizing, preventing and intervening in cases of maltreatment. Examples of questions raised include: "how should one respond when an athlete says she does not feel comfortable with the team physician?"; "what is an appropriate response when a young athlete describes experiencing what may be interpreted as emotionally abusive coaching practices?"; and "how does one navigate the tensions presented with other coaches, parents or support staff members, when maltreatment is suspected?" Discussion will include the importance of training and educating sport psychology consultants to recognize maltreatment, accept and act upon their responsibilities to ensure the welfare of athletes, and to see performance enhancement and safeguarding as inextricably linked.

## **SYM-15**

### **APPLICATION OF A NOVEL MENTAL SKILLS CURRICULUM IN SURGERY: A REVIEW OF ITS EFFECTIVENESS AND LESSONS LEARNED**

*Nicholas Anton, Department of Surgery, Indiana University School of Medicine, USA;*

*Eric Bean, HigherEchelon, INC, USA;*

*Dimitrios Stefanidis, Department of Surgery, Indiana University School of Medicine, USA*

Excessive stress is a significant barrier to surgical performance (Arora et al, 2010; Wetzel et al, 2006). In a recent survey to identify the impact of surgeons' stress, 40% of responding surgeons reported that they had witnessed an intraoperative error that was the direct result of the primary surgeon's stress level (Anton et al, 2015). Surgical residents may be particularly vulnerable to experience performance deteriorations due to increased stress, as they are unlikely to have developed effective techniques to manage stress due to their inexperience (Arora et al, 2010). Furthermore, intraoperative errors could ultimately compromise patient safety (Grober & Bohnen, 2005). Accordingly, it is necessary to identify strategies to optimize residents' performance during challenging clinical situations. A grant was awarded to rigorously develop and validate a novel, comprehensive curriculum to teach performance-enhancement



and stress-coping strategies to surgical trainees. The purpose of this symposium is to report on the development this curriculum, and scientific findings from its implementation in randomized-controlled studies. Additionally, our expert panel featuring a mental performance coach, a senior performance psychology consultant, and an expert surgical educator will discuss the lessons our team learned from all phases of this project that may benefit attendees in their applied psychology practice.

## SYM-15A

### APPLICATION OF A NOVEL MENTAL SKILLS CURRICULUM IN SURGERY: RATIONALE FOR IMPLEMENTING MENTAL SKILLS WITH SURGICAL TRAINEES

*Eric Bean, HigherEchelon, INC, USA;*  
*Nicholas Anton, Department of Surgery, Indiana University School of Medicine, USA;*  
*Dimitrios Stefanidis, Department of Surgery, Indiana University School of Medicine, USA*

A career in surgery is extremely and unrelentingly psychologically demanding. Surgeons must master constantly evolving and difficult surgical procedures and techniques, maintain attention on intricate technical details of surgery while simultaneously shifting attention rapidly to manage external distractions and maintain vigilance of patient parameters, and execute performance flawlessly as mistakes have potentially devastating consequences (Wetzel et al, 2006). These factors can contribute to high cognitive demands during performance that can contribute to stress. Stress has been identified as a significant barrier to surgeons' fine motor skills, attention and concentration, dexterity and coordination, communication skills, and decision-making ability (Maher et al, 2013).

Inexperienced surgeons may be particularly vulnerable to debilitating stress, as their inexperience may prevent them from developing effective stress-coping schema (Arora et al, 2010a). Subsequently, identifying strategies to optimize surgical residents' performance during stressful situations is imperative.

Mental skills curricula (MSC), which consist of psychological techniques that enable performers to consistently perform in the upper range of their abilities in spite of potential cognitive barriers to performance (e.g., stress, loss of focus, etc.) (Williams, 2010), have been effectively implemented to enhance the performance of performers in various high-stress domains outside of surgery (Le Scanniff & Taugis, 2002; Selder, Burnett, Nideffer, 1989; McCrory, Cobley, Marchant, 2013). Conversely, MSC have rarely been implemented in surgery. However, in the limited instances when mental skills have been implemented to enhance the performance of surgical novices (Arora et al, 2011) and experienced surgeons (Arora et al, 2010b) the results indicate that these skills can enhance surgical skill acquisition, performance, knowledge, and confidence.

This presentation will focus on:

1. Identifying the cognitive barriers to residents' successful surgical performance
2. Describing the benefits and rationale of implementing mental skills training with residents

## SYM-15B

### DEVELOPMENT OF A NOVEL MENTAL SKILLS CURRICULUM FOR USE IN SURGERY

*Dimitrios Stefanidis, Department of Surgery, Indiana University School of Medicine, USA;*  
*Nicholas Anton, Department of Surgery, Indiana University School of Medicine, USA;*  
*Eric Bean, HigherEchelon, INC, USA*

In an effort to evaluate the need for mental skills training with surgical trainees, we initially performed a needs assessment with surgical residents and attendings (Anton et al, 2015). A survey was distributed to 95 surgeons, and based on the 72 responses received, 40% of respondents had witnessed a surgical error that was attributable to the primary surgeons' stress level. Furthermore, 83% of respondents indicated that stress management training designed for surgeons would be beneficial.

Based on the findings from this needs assessment, a novel mental skills curriculum (MSC) was developed by a diverse research team consisting of a surgeon educator with expertise in surgery and simulation-based research, a performance psychologist with expertise in mental skills training, and a PhD educator with expertise in instructional design. For curriculum development we used David Kern's (2009) model of curriculum design, which included the aforementioned needs assessment, development of curricular objectives based on this assessment, development of instructional methods, and identification of assessment methods to assess curricular outcomes.

The developed curriculum consisted of eight modules: introduction to mental skills, goal setting, energy management, attention management, mental imagery, refocusing strategies, and performance routines. The curriculum was implemented with a convenience sample of nine surgical novices during surgical simulator training as a pilot study of its effectiveness.

Following MSC training, participants displayed significantly enhanced performance on simulators, and significantly improved attention focus, mental imagery, and mental skill use (all  $p < 0.001$ ). Compared to historical controls this MSC trained group also displayed significantly lower performance deterioration in laparoscopic suturing during a transfer test to a live porcine model (45% vs. 26%, respectively;  $p < 0.01$ ).

This presentation will focus on:

1. Discussing the development of our novel MSC.
2. Disseminating initial results of the impact of our curriculum on surgical novices' performance under stress.

## **SYM-15C**

### **APPLICATION OF A NOVEL MENTAL SKILLS CURRICULUM IN SURGERY: RESULTS FROM RANDOMIZED-CONTROLLED STUDIES**

*Nicholas Anton, Department of Surgery, Indiana University School of Medicine, USA;*

*Dimitrios Stefanidis, Department of Surgery, Indiana University School of Medicine, USA;*

*Eric Bean, HigherEchelon, INC, USA*

Following our initial pilot study of the effectiveness of our mental skills curriculum (MSC), we further implemented this novel MSC in a randomized-controlled study with 55 surgical novices (students), and found that compared to controls who only underwent surgical simulator training, the MSC group displayed almost double performance improvements in IS performance between a porcine post-test and a porcine retention test 1-month later (MSC: +17.8% vs. Control: 10.1%,  $p < 0.05$ ). These results indicated that our MSC may enable learners to better retain surgical skills over time compared to controls. The trained group also demonstrated higher spare attentional capacity compared to the control group as measured by a secondary task.

Recently, we implemented this MSC in a randomized-controlled study with 38 surgical residents. Following MSC and surgical simulator training, residents participated in a live porcine transfer test of surgical skill (i.e., to better simulate the clinical environment). Common intraoperative stressors were implemented during 2 of 3 suturing repetitions to better recreate intraoperative stressors, challenges, and distractions. While the MSC and control groups displayed comparable performance during the transfer test repetition that did not include stressors, the MSC group significantly outperformed controls when stressors were introduced unexpectedly (MSC:  $148.2 \pm 150.3$  vs. Control:  $26.8 \pm 63.3$ ,  $p = 0.002$ ). Thus, the MSC group was able to better manage the demands of unexpected intraoperative stressors compared to controls, which has significant implications for surgical education. The results from these studies with diverse learners indicate that this MSC can lead to reproducible and generalizable performance benefits to a broader audience in surgical and graduate medical education.

The focus of this presentation will be:

1. Disseminating the results from randomized-controlled studies with surgical trainees.
2. Discussing lessons learned from implementing mental skills training with surgical trainees that symposium attendees can apply to their practice with diverse learners.

## **SYM-16**

### **INTO THE GREAT WIDE OPEN: EMPLOYMENT EXPERIENCES OF EARLY CAREER SPORT AND EXERCISE PSYCHOLOGY PROFESSIONALS**

*Sean Fitzpatrick, Marian University, USA;*

*Chelsea Wooding, National University, USA;*

*Samantha Monda, Robert Morris University/KPEX Consulting, USA;*

*Perri Ford, Bell Lap Mental Performance Coaching, Canada*

There have been few, systematic explorations of the experiences of early-career professionals since Williams and Scherzer's (2003) study of individuals who completed

their graduate degrees between 1994 and 1999. Their work followed a line of research began by Waite and Pettit (1993) and later Andersen, Williams, Aldridge, and Taylor (1997). Since this time, the field of Sport and Exercise Psychology has experienced tremendous growth and the professionals who are beginning their careers today face a much different employment outlook than their predecessors did nearly two decades earlier. This symposium will explore the experiences of early professionals and is organized around an explanatory sequential mixed-methodological (Creswell, Plano Clark, Gutmann, & Hanson, 2003) investigation of their initial career perceptions. The first presentation will provide an overview of the survey participants ( $n = 61$ ) completed in the first phase of the study. Individuals reported working in a variety of settings, including academia ( $n = 21$ ), private practice ( $n = 4$ ), as well as applied positions within an organization ( $n = 5$ ). Though many respondents expressed being satisfied with their current work, several faced many challenges and barriers. The second presentation will explore the results of qualitative interviews conducted with survey respondents. The interviewees were trained in a diverse range of academic programs and held varied roles within the field. The third presentation will be a first-hand account of a young professional's journey towards self-sufficiency as a master's trained private practitioner. A focus of this account will be on the decision making process involved in taking the risk of leaving a full-time position to open a private practice. The last presentation will bring together lessons from the prior components and will include a discussion on steps forward for current and future professionals, training programs, and the field.

## **SYM-16A**

### **RUNNIN' DOWN A DREAM: SURVEY RESULTS OF EARLY PROFESSIONALS' CAREER EXPERIENCES**

*Sean Fitzpatrick, Marian University, USA*

The increasing number of graduate programs (Burke, Sachs, & Schweighardt, 2015) and CMPCs (AASP, 2018) provides evidence that a growing number of individuals are interested in pursuing sport and exercise psychology as a profession. The continued uncertainty that has long surrounded the size of the job market (Meyers, Coleman, Whelan, & Mehlenbeck, 2001) has not slowed this growth. To gain a better understanding of the types of positions that early career professionals are pursuing and their experiences in doing so, a survey was conducted with participants who took part in an earlier study of then current graduate students (author info redacted). A total of 61 individuals took part in the survey, of which 49 had finished their graduate training program they were in when they participated in the previous study. Participants provided information on their training experiences, their current positions, as well as their future career goals. Though nearly half ( $n = 22$ , 46.81%) of the respondents did not feel that they were well informed of job opportunities while they were in graduate school, among those working ( $n = 35$ ), the majority were satisfied with their current career ( $n = 27$ , 77.14%). The percentage of participants who reported they were experiencing challenges such as a limited market ( $n = 19$ , 63.33%) and limited financial support ( $n = 15$ , 50%) was much higher than their predecessors reported in similar studies (Williams & Scherzer, 2003). This presentation will detail these findings and others, comparing the results with previous studies of early career professionals to provide insight into changes in how individuals are entering and progressing through their chosen profession.

**SYM-16B****I WON'T BACK DOWN: QUALITATIVE RESULTS OF EARLY PROFESSIONALS' CAREER EXPERIENCES***Chelsea Wooding, National University, USA*

In an effort to gain a richer, more in-depth understanding of participants' perspectives (e.g., Hatch, 2002), we qualitatively studied 12 recent graduates who completed the survey discussed in the previous presentation. Using a constructivist framework (Hatch, 2002), semi-structured interviews were conducted before analysis of the quantitative results to reduce bias in the questions asked. Early professionals in both academic and applied positions were interviewed, and participants discussed three main topics, identified using interpretive analysis (Hatch, 2002; Patton, 2002). First, participants discussed the challenges faced in obtaining their current position, such as inconsistent job availability, relocating or travelling for work, and a lack of guaranteed contracts. Second, participants spoke about the resources available to them that helped throughout the process; for example, reliable mentors, a strong network of colleagues and friends, passion for the work, and transferable experience from graduate training. Last, participants offered suggestions for current graduate students and programs, like offering close mentorship, integrating more sport disciplines, and offering courses beyond traditional sport psychology topics (e.g., business development or strategies for teaching and pedagogy). Overall, participants were involved in a wide range of employment activities and described themselves as having to be versatile. Regardless of their current position, there was no clear path to get there. Over time, their career goals and interests changed, and they adapted to employment opportunities as they became available. In an applied setting, they might have taken a job for experience rather than a perfect fit. In academia, they might be teaching classes outside of sport psychology in hopes of later finding a more appropriate position. Learning from these early professionals can help current students create realistic expectations, graduate programs refine training experiences, and the field understand needs of its professionals.

**SYM-16C****YOU DON'T KNOW HOW IT FEELS: FIRST HAND EXPERIENCES OF AN EARLY CAREER PROFESSIONAL***Perri Ford, Bell Lap Mental Performance Coaching, Canada*

To further expand on the experiences of the participants in the present study, an early career professional will detail the significant milestones, challenges, and accomplishments that have marked her journey to becoming a sport psychology practitioner. The presenter is a former NCAA student-athlete coming from a background in kinesiology and corporate health. She obtained a master's degree in sport psychology and graduated from a program heavily focused on applied work. Upon graduating, she continued her job in the field of corporate health for almost two years. During this time it became clear that finding her perfect career via traditional mechanisms such as job boards was unrealistic, and creating a fulfilling sport psychology career would need to be a self-directed process. She took calculated steps towards the goal of becoming a full-time mental performance coach in private practice, and incorporated sport and exercise psychology into her current work. When she felt ready to move into a full-time position as a business owner and mental performance coach, she left her job. This presentation will explore her

actions leading up to taking the leap by highlighting areas such as pursuing professional membership in an organization, forecasting financial risks, reaching out for support, and building confidence as a practitioner. Attention will also be given to the challenges that accompany starting out in the field such as hiccups in business ownership, struggling to access gatekeepers, and maintaining motivation in a sometimes lonely field. The aim of this presentation is to highlight one participant's experience as a newcomer in order to demonstrate life as a early career professional to students, academic programs, and others in the field.

**SYM-16D****LEARNING TO FLY: PREPARING FOR A CAREER IN SPORT AND EXERCISE PSYCHOLOGY***Samantha Monda, Robert Morris University/KPEX Consulting, USA*

Exploring the early career experiences of sport psychology professionals can provide insight into how to best prepare for a successful career in the field (Owton, Bond, & Tod, 2014; Tod, Andersen, & Marchant, 2009). Understanding the facilitators and barriers to workforce entry can help graduate students and those assisting in training young professionals make educated choices in the early stages of their career. The purpose of this presentation is to discuss implications of the quantitative and qualitative research presented in this symposium for current and future professionals, those involved in graduate and undergraduate training, and the field of sport and exercise psychology as a whole. Based on the research, suggestions for best practice include: keeping abreast of current trends, purposefully choosing experiences to prepare for the realities of the field, creatively seeking professional opportunities in non-traditional settings, and determining if a doctorate degree or counseling licensure is right for you. Discussion will also focus on recommendations for future directions in the field including publicizing the work of sport and exercise psychology professionals to the general public, clarifying the difference between mental health and performance work, and exploring the potential value of graduate program recognition.

## WORKSHOPS

### WKSP-01

#### **COACHING THE COACHES: AN APPROACH FOR SPORT PSYCHOLOGY PRACTITIONERS TO HELP COACHES MOVE FROM LEADERSHIP IDENTIFICATION TO LEADERSHIP DEVELOPMENT**

*Jason Mead, Waubonsie Valley High School, USA;  
Scott Pierce, Illinois State University, USA;  
Jedediah Blanton, University of Tennessee, USA;  
Todd Gilson, Northern Illinois University, USA;  
Kylee Ault, University of Tennessee, USA*

Great coaches view youth sport as a means to develop champions in their sport and productive future citizens off the field. Youth leadership is often targeted as one skill valuable for athletic success and as a life skill to be transferred beyond sport. It is concerning, however, that youth often believe they have few real leadership opportunities in sport (Voelker et al., 2011). Moreover, coaches view a lack of youth athlete leadership as a current issue in high school sport (Gould et al., 2006) and there is an absence of training for coaches in this area (Gould et al., 2013). As a result, coaches more often than not, engage in 'leadership identification' instead of 'leadership development,' and struggle to systematically teach leadership. The goal of this workshop is to equip sport psychology practitioners to help coaches become more leadership development-oriented with young athletes. We'll first help attendees understand the theoretical and empirical views of leadership for youth athletes. We'll then discuss what has been learned from coaches known for having leadership development as part of their central philosophy, and what athletes have experienced from coaches. We'll then discuss how practitioners can create a common vernacular around leadership with coaches, so that these coaches can emphasize sport psychology knowledge and terms around leadership skills on a daily basis with their athletes. Last, we'll leave attendees with a set of strategies to share with coaches to help them explicitly teach leadership and to identify and leverage opportunities in youth sport for leadership skills to emerge. In this workshop, attendees will react to and reflect on video interviews of youth athletes and coaches, be provided examples of curricula for youth leadership development, and collaborate on the development of approaches that could be used when helping coaches become developmentally-oriented in regards to leadership.

### WKSP-02

#### **BRIEF INTERVENTIONS TO MANAGE THE MIND CHATTER: A PRACTITIONER'S ACCEPTANCE-BASED APPROACH TO MANAGING DOUBTS IN COMPETITION**

*Mitchell Greene, USA*

Most sport psychologists are forever attempting to get athletes to be more positive and to stop their negative thinking. The idea is that if you can replace your negative beliefs with positive ones, your performance will improve. There is only one problem. The research data supporting the negative-to-positive replacement strategy has shown less promise for helping athletes as have acceptance-based approaches, such as Acceptance and Commitment Therapy (ACT) (Hayes, Strosahl, & Wilson, 2016), and sport interventions like the

Mindfulness-Acceptance-Commitment (MAC) protocol (Gardner & Moore, 2017). Ask any experienced athlete and he or she will tell you that second-guessing and whispers of doubt remain despite repeated attempts at positive affirmations, and other attempts at controlling one's internal states (Gardner & Moore, 2017).

Acceptance-based intervention approaches accept the inconvenient truth that we have less control over our thoughts than we would wish. Thus, practicing non-judgmental awareness of thoughts and feelings can give athletes some much-needed separation from their inevitable second-guessing. In this workshop, led by a clinical and sport psychologist with over 15 years' experience with athletes on and off the field, the learning objectives are: a) to teach how to recognize and label what the presenter terms "mind-chatter," the kind of doubt-filled self-talk that need not be "controlled"; b) to teach attendees, using case examples, how to help athletes "make room" for chatter rather than fight against it and, c) to use the conversation about mind chatter to teach attendees how they can help gradually shift their athletes' focus away from how he or she feels, and more towards game-specific goals. The presenter will use handouts, in addition to case examples, to show the step-by-step model he uses to assist athletes in becoming masters at managing their mind chatter.

### WKSP-03

#### **UNCOMFORTABLE SILENCE: AN OPEN DISCUSSION ABOUT MICROAGGRESSIONS IN SPORT AND THE TOOLS NECESSARY TO ADDRESS THEM**

*Leeja Carter, Long Island University - Brooklyn, USA;  
Carlos Davila, Long Island University-Brooklyn, USA*

Microaggressions are subtle, commonplace verbal or nonverbal slights that often go unnoticed or unaddressed (Sue et al., 2007). Common in various interactions and spaces, sport is not immune to intersectional microaggressive incidences. Microaggressions are often confusing and hard to identify for both the victim and perpetrator (Sue, Capodilupo, & Holder, 2008) with sport being a space that reinforces identity blindness (for example: color or gender blindness) and conformity thus increasing the likelihood of microaggressive incidences (Burdsey, 2011). This presents a need to assist athletes and helping professionals in sport to identify the causes and effects of microaggressions, as well as develop skills to thoroughly understand and address such incidences before and when they occur.

The purpose of the workshop is to provide an intersectional skill-building training for students and professionals on ways to address microaggressions as they occur during peer-to-peer, consultant-to-peer, and group sporting spaces. With an emphasis on assisting attendees in first identifying 'where' they may be in understanding multicultural sport psychology and intersectionality, to understanding cultural differences of themselves and others, learning methods to avoiding microaggressive acts, validating instances when they occur, as well as holding space with clients and peers the workshop has the following goals: 1) create a safe space for attendees to openly communicate; 2) provide a sport psychology-specific model of microaggressions and its components; 3) delve into attendee's level of awareness (or lack thereof) of their own microaggressions; 4) create a framework for small group discussion with attendees at differing levels of microaggression awareness to formulate strategies to help

understand and combat microaggressive behavior; and 5) facilitate a larger group conversation emphasizing the tools needed to address microaggressive behavior as well as the skill set necessary to create a safe space to have conversations about microaggressions.

### WKSP-04

#### TRAUMA INFORMED CARE: A FRAMEWORK FOR UNDERSTANDING AND ADDRESSING TRAUMA AND ITS IMPACT ON ATHLETES

*Liz Holthaus, James Madison University, USA;  
Christian Hasse, James Madison University, USA;  
Anne Stewart, James Madison University, USA*

An increasing number of athletic organizations have begun to recognize athlete well-being and mental health as an important aspect of sport; at the same time, there are compelling reports about the prevalence of trauma. A clearer picture of the prevalence of trauma experienced by athletes is forming, and ultimately, those who work with athletes will benefit from an understanding of the impact of trauma. Trauma is defined as “an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual’s functioning and physical, social, emotional, or spiritual well-being” (SAMHSA, 2017). Athletes may face trauma during life experiences as children, adults, and through sport participation (Kaier et al., 2015). To address the needs of those who have experienced trauma, trauma-informed care (TIC) has been implemented in a variety of health care, educational, and community settings. However, little has been found on these principles being implemented in athletic settings.

TIC is based in contemporary trauma theory and is a strength-based, developmentally minded approach to enhance well-being and avoid re-traumatization. This approach includes three tenets: realizing the prevalence of trauma, recognizing how trauma affects everyone in a system, and responding by putting this knowledge into practice (SAMSHA, 2014). TIC encourages those who work with athletes to consider mental well-being as an integral part of their personal and athletic development.

The purpose of this workshop is to provide sport psychology professionals a framework of TIC to facilitate their work with organizations, coaches, or athletes. Learning outcomes include a) Understanding the physical, cognitive, and emotional impact of trauma, b) Understanding the organizational impact of understanding and addressing trauma, and c) Considering the ethical implications of employing a trauma-informed approach.

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### WKSP-05

#### FROM RESISTANCE TO RESILIENCE: HELPING ATHLETES MAKE POSITIVE CHANGE

*Fred Hanna, Adler University, USA; Russ Flaten, SAIC, USA*

Why is it that some athletes can make change so easily, while some athletes appear resistant or defiant? What are the active ingredients to help athletes make change? In today’s athletic landscape, sport psychology services continue to be more widely accepted and embraced by coaches and athletes (Williams, 2015), so what tools do sport psychology professionals and coaches have when athletes appear defiant or resistant? Common models such as the transtheoretical model provided much in the way of describing stages of change (Prochaska & DiClemente, 1982) and is utilized among exercise (Vinci, 2003) and sport communities (Armentrout, 2013). The difficulty lies within the ambiguity of what it means to stay motivated and engaged in the process, especially when change can be highly complex (Hanna & Ritchie, 1995). Many commonly used strategies in therapy for example, assume some motivation is inherent and discussing how to re-motivate individuals are too vague to be of help to professionals (Hanna & Ritchie, 1995). The Precursors Model for Positive Change focuses solely on key principles for change and not on stages or personality traits for change (Hanna, 2000). These principles, called “Precursors”, can be thought of as preconditions that give rise to change (Hanna, 2000). When the precursors are in place to that degree, individuals will appear willing and motivated to that degree and at that point you can resume or begin the coaching or training of that athlete.

The purpose of this workshop is to introduce and practice specific techniques to help professionals re-engage and motivate resistant clients. Specifically, participants will be able to identify common behavior challenges that coaches and sport psychology professionals deal with and which specific techniques can help address those challenges. This workshop will be lead by two professionals who specialize in working with difficult and defiant individuals and mental skills training among a wide variety of mental health, sport, and military communities.

### WKSP-06

#### DIALECTICAL BEHAVIOR THERAPY FOR ATHLETES

*Miriam Rowan, Amplify Wellness + Performance, USA;  
Catherine Drury, The Actors Fund, USA*

Dialectical Behavior Therapy (DBT) is a comprehensive treatment developed by Marsha Linehan, PhD, to improve the lives of chronically suicidal and self-harming individuals. Today, DBT is the only effective treatment for this population (Linehan et al., 2006), and has been modified to treat major depressive (Harley, Sprich, Safren, Jacobo, & Fava, 2008), bipolar (Van Dijk, Jeffrey, & Katz, 2013), eating (Telch, Agras, & Linehan, 2001), and substance use disorders (Linehan et al., 2002). As a principle-based model, DBT emerges from a tripartite theoretical framework: Hegel’s Theory of Dialectics, Behaviorism, and Zen Buddhism. DBT includes Skills Training to increase individuals’ competencies across the domains of Mindfulness, Interpersonal Effectiveness, Distress Tolerance, and Emotion Regulation. Given the broad relevance and applicability of DBT, these skills are increasingly disseminated within non-clinical settings, including schools (Zapolski &

Smith, 2016) and offices (Hyland, Lee, & Mills, 2015). There is reason to consider how DBT skills may be used in the service of athlete well-being and performance.

This 60-minute workshop is led by two trained DBT experts who specialize in working with athletes and performers. The first presenter is a member of McLean Hospital/Harvard Medical School's DBT team, former professional ballet dancer, and private practice sport and performance clinician. The second presenter is a psychotherapist and mental health consultant for The Actors Fund and American Ballet Theatre's school, where she is implementing DBT skills into pre-professional dance training. This workshop includes an introduction to DBT principles and skills and provides suggested applications for athletes in both clinical and performance settings. Attendees will gain introductory knowledge of DBT principles, learn one skill from each of the four DBT modules, and understand how DBT concepts may be tailored to athletes in clinical and performance contexts. Teaching methods will include a didactic presentation, interactive skills training, and a Q&A session.

## **WKSP-07**

### **ATHLETE INTAKES AND SPORTS CONCUSSION: FROM A TO ZINGER**

*Joe Mannion, Pepperdine University, USA*

A concussion is a mild traumatic brain injury (mTBI) that results from a blow or sudden jolt that causes the brain to twist or move within and against the skull, damaging neurons and creating biochemical changes. In the United States, the annual incidence of sports-related concussions, including those for which no medical treatment is sought, has been estimated to be between 1.6 million and 3.8 million (Langlois, Rutland-Brown, & Wald, 2006). Despite such prevalence and increasing scientific, public, and legal attention, there has been a relative paucity of formal training in this area in sport psychology graduate curricula. The urgency to enhance interdisciplinary competency is underscored by the sophistication of neurological injury, potential risks, and the likelihood that sport psychology professionals will encounter clients with such histories.

The purpose of this workshop, therefore, is to offer specific considerations for participants when gathering relevant athlete intake information. Learning objectives include (a) reviewing sports concussion basics (e.g., mechanisms, recovery, complications), (b) exploring symptom domains in which to ask questions (e.g., neurological, neurocognitive, psychological), (c) examining collateral sources of information and special considerations (e.g., secondary gain), and (d) mitigating legal and ethical challenges with consent and referrals (e.g., sports neurologists, sports neuropsychologists). Information will be presented in a biopsychosocial manner and draw upon evidenced-based sport psychology literature (e.g., Wiese-Bjornstal, White, Russell, & Smith, 2015) and guidelines set forth by the American Academy of Neurology (Giza et al., 2013). Attendees will have opportunities for active learning through discussion of previous training and case experiences and in role-play practice. Handouts will include workshop content as well as web-based resources and further reading for practitioners and clients.

## **WKSP-08**

### **MAKING THE MOST OF OUR TIME: APPLIED CONSIDERATIONS AND BRIEF CONTACT INTERVENTIONS IN TIME-LIMITED SPORT CONTEXTS**

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Nohelani Lawrence, University of Southern California, USA;  
Lennie Waite, Waite Performance Strategies LLC, USA;  
Stacey Alvarez-Alvarado, Florida State University, USA*

Certain circumstances involve athlete relationships of a temporary nature, whether with a coach or Sport Psychology (SP) professional. For instance, when one coach leaves a team, an interim may be appointed before a permanent replacement is found. In the same vein, coaches and staff assembled for elite national and international competitions are not typically the personal, regular coaches or support staff for many athletes. These time-limited situations are unique, and warrant special consideration for coaches, athletes, and SP professionals working or traveling with the team (e.g., McCann, 2008). For the proposed workshop, based upon applied experiences and building upon relevant theoretical frameworks, presenters will reflect upon special considerations for such time-limited circumstances, including developing rapport and trust individually with athletes, establishing team cohesion, mental skill building and brief contact intervention applications (e.g., Giges & Petitpas, 2000; Haberl & Peterson, 2006; McCann, 2008). Importantly, the workshop will include attention to factors impacting these time-limited athletic contexts and highlight interventions that may enhance performance outcomes. For instance, presenters will guide audience members through activities illustrating concepts and theoretically driven, brief contact intervention techniques for athletes and coaches. Audience members will also be directed to resources to further their understanding of these principles and relevant techniques which may be used in applied contexts. Together, audience members will be given an overview of these unique time-limited athletic contexts, and also introduced to a variety of techniques and resources which will enable them to more effectively consult with athletes and coaches.

Three of the presenters are CMPCs: Two work with US elite national teams, and a third is an elite athlete, participating in the most recent Summer Olympic Games. A fourth presenter is a young professional with significant relevant applied and athletic experiences. Collectively, presenters have extensive applied and athletic experience in these time-limited sport contexts.

## **WKSP-09**

### **SUPERVISION OF SPORT PSYCHOLOGY TRAINEES FOR A DIFFERENT ERA: NEW ETHICAL CONCERNS, EXPLORING BIAS, AND TRANSITION FROM ONLINE TO REAL WORLD**

*Michelle Bartlett, West Texas A & M University, USA;  
Megan Byrd, John F Kennedy University, USA;  
Hillary Cauthen, Texas Optimal Performance & Psychological Services, USA*

Supervision is a critical element in the training of sport psychology practitioners. Purposes include interpersonal and professional growth for the trainee, the development of competent and ethical practitioners for the profession, and as a quality control mechanism for consumers. Unfortunately, an often cited issue in sport psychology supervision is the lack

of training in supervision practices for supervisors. Studies report that 50-80% of supervisors have received little to no training on supervision practices (Foltz et al., 2015; Hutter et al., 2015; Milne et al., 2011; Watson et al., 2004.). It is essential that supervisors are cognizant of how changing times (e.g., political landscapes, sociocultural factors, and technological factors/online learning environments) can impact their supervision and that they account for this in their supervision practice. Current important supervisory issues that may be neglected are multicultural competency, acknowledging bias, and ethical concerns, with trainees largely reporting these as a perceived deficiency (Foltz et al., 2015). Further, Hutter et al. (2015) found that these prominent supervisory issues are rarely brought up by trainees and must be proactively addressed by supervisors. Therefore, given the paucity of formal training in supervision available for sport psychology supervisors, the learning objectives of this workshop are the following: to provide supervisors with materials and activities to assist trainees in acknowledging and removing biases that may interfere with consultations, to explore current ethical issues, to establish best ethical practices, and to assist students moving from multimodality learning environments to applied experiences. Additionally, the workshop will address ethical issues that trainees face when moving from the classroom to the field that are pertinent for supervisors. Attendees will learn best practices from each other and will receive instruction on supervision from the moderators, all of whom had formal training in supervision and are published in their respective areas of supervisor education.

### **WKSP-10**

#### **DEVELOPING A PERSONAL MEDITATION PRACTICE THAT ENHANCES YOUR MINDFULNESS TEACHING PRACTICES FOR CLIENTS**

*Adam O'Neil, Pinnacle Performance Psychology, USA;*  
*Jessica Bartley, University of Denver, USA;*  
*Nicole Davis, Compete to Create, USA;*  
*Robert Diehl, Boston University, USA;*  
*Trevor Cote, Boston University, USA*

The term "mindfulness" has become a widely used intervention in various mental health domains, including the field of sport and performance psychology (Baltzell, 2016; Baltzell & Akhtar, 2014). Of particular importance for sport psychologists and consultants, mindfulness meditation been shown to enhance the capacity for learning new mental skills (Kee & Wang, 2008), decrease stress and burnout (Roeser et al., 2013), enhance social functioning (Roeser et al., 2014; Brendel et al., 2016), and foster resiliency and mental toughness (Meiklejohn et al., 2012) with athletes and performers in various performance disciplines. While mindfulness-based interventions clearly hold value for the performer, research supports that it is vital to not only provide empirically supported approaches of mindfulness but also that the provider embodies the practice in their own life before implementing mindfulness into professional practice (Crane et al., 2010; Crane et al., 2012; van Aalderen et al., 2014). Some practitioners have gone so far as to posit the effectiveness of teaching mindfulness is based on one's personal practice (Kabat-Zinn et al., n.d.; Pollak, Pedulla, & Siegel, 2014). The main learning objectives of the workshop are to advance the training of sport and performance psychologists and consultants on the personal practice of mindfulness; to explore how a personal commitment to a regular mindfulness practice relates to performance as a consultant; and to practice multiple types of mindfulness trainings in a collaborative group environment. The experience will be shaped by a discussion of the

plaudits and pitfalls of mindfulness training for use as a client intervention, as well. Digital materials will be shared with attendees, including book recommendations, reference lists of scholarly articles specific to the art and science of teaching mindfulness from a health care professional lens, and other resources that support the ongoing meditation practices of sport psychologists.

### **WKSP-11**

#### **APPLICATION OF PHYSIOLOGICAL MONITORING TO GUIDE SPORT PSYCHOLOGY CONSULTING WITH ELITE TACTICAL POPULATIONS**

*Sam Whalen, IMG Academy, USA;*  
*Seth Haselhuhn, Booz Allen Hamilton, USA*

The purpose of the workshop is to demonstrate how to use existing technology to monitor physiological responses within training and non-training environments. The ultimate goal of the sport psychology practitioner is to increase performance through self-regulation strategies during training sessions and subsequently competitions. Using biofeedback devices during training sessions gives the sport psychology practitioner and the end user data points to specify exactly when self-regulation techniques should be used and provide valuable insight into individualized mental preparation plans. Recent research has demonstrated how mental skills coaching combined with biofeedback training can increase heart rate variability (HRV) which can lead to increased performance with elite soccer players (Rijken, et al., 2016) and tactical competition shooters (Thompson, Swain, Branch, Spina, and Greico, (2015). Additionally, di Fronso, Robazza, Bortoli, and Bertollo (2017) presented a framework for using biofeedback as a method to further understand activation and underlying mechanisms for elite performance. However, knowing which biofeedback system to use and how to go about integrating it within a broader sport psychology training program may be unclear to practitioners with less exposure to biofeedback systems. Therefore, the presenters of this workshop will give a review of goals, strategies, and intended outcomes of using physiological data collected during training sessions to increase sustainable high performance. Specifically, attendees of the workshop will learn specific methods for employing physiological monitoring systems to inform sport psychology interventions with elite tactical populations to include lessons learned and best practices. Feedback from the practitioner in these contexts must be timely, accurate, and clearly add immediate value to the training environment. The practitioner must also consider how data from these systems is to be stored, analyzed, and disseminated. To be most effective, the practitioner must have a clear understanding of how the data can facilitate the increase skill acquisition and expertise development.

### **WKSP-12**

#### **HOW TO EFFECTIVELY INTERVENE WITH CYBER-BULLYING IN YOUTH TEAM SPORTS**

*Charlotte Raue, University of Muenster, Germany;*  
*Sydney Querfurth, WWU Münster, Germany;*  
*Sebastian Brueckner, Muenster University, Germany;*  
*Michael Zito, Morristown Clinical and Sport Psychology, USA*

The importance of social media networking permeates today's professional, recreational and youth sports settings (Cotterell, 2013). However, along with positive features (e.g. self- presentation & communication) these platforms bring privacy and security concerns inherent in those fast-paced

technologies as well as opportunities for cyber-bullying. Youth sport settings are no exception regarding risk for cyber-bullying, which is defined as social media communication intended to damage, threaten, expose, or harass persons, usually over an extended period of time (Leest, 2014). Thus, youth sport coaches, mental performance consultants and sport psychology practitioners need to be aware of the specific dynamics as well as possible signs for and damage caused by cyber-bullying. Traditional conflict resolution and communication strategies (Hedstrom, 2009) can be a good starting point, but more specific strategies and resources will be required to effectively deal with cyber-bullying.

The learning objectives of this workshop are threefold: 1) provide a theoretical foundation and conceptual framework for cyber-bullying interventions (e.g. systemic short interventions); 2) provide background information on legal issues, as well as a list of potential resources outside of sport organizations that can be helpful in seeking guidance and designing interventions; 3) offer a forum for discussion of personal experiences and best-practice interventions, as well as raise awareness for ethical and professional boundaries.

In order to achieve these objectives, the following pedagogic approaches will be implemented: Lecture and presentation of information on core theories and concepts, small group case discussion, time for self-reflection and large group discussions. Intervention strategies and reflections generated in the small group discussion will be shared with the larger group. Furthermore, a proposed cyber-bullying intervention framework will be provided. Attendees will leave this workshop with personal and shared reflections and exemplary strategies for future interventions in cyber-bullying in youth sport.

## **WKSP-13**

### **IN THE TRENCHES: BUILDING AND IMPLEMENTING A MENTAL SKILLS TRAINING PROGRAM FOR ROTC CADETS**

*Morgan Eckenrod, University of Tennessee, USA;*  
*Matthew Jones, University of Tennessee, Knoxville, USA;*  
*Danielle DeLisio, University of Tennessee, USA;*  
*Jared Crain, University of Tennessee, USA;*  
*Rebecca Zakrajsek, University of Tennessee, USA*

Mentored consulting opportunities for graduate students can be limited, though experiential knowledge gained through practical experience is considered vital training for young practitioners to grow in knowledge and skill (Martens, 1987). The military is arguably one of the largest employers of sport psychology services. Therefore, it would be beneficial for graduate training programs to consider ways that graduate students can gain military consulting experience. Throughout the United States, there are over 30,000 cadets enrolled in Reserve Officers' Training Corps (ROTC) programs (U.S. Army Cadet Command, 2016), making them a prime population for graduate training programs to build relationships with and deliver mentored sport psychology services. Using insights from an existing partnership between a graduate sport psychology program and ROTC program, the purpose of this workshop is to provide the audience with ways to (a) form a partnership with an ROTC program, (b) identify the psychological demands faced by cadets and cadre, (c) create and implement a sport psychology program following a theory to practice model for each Military Science (MS) class (i.e., MSI, MSII, MSIII, MSIV), (d) adopt and devise a meta-mentoring structure to enhance graduate student training, and (e) evaluate sport psychology service delivery. Lessons learned and future considerations

when working with a military population will be highlighted throughout the workshop. The audience will also engage in the development of interventions designed for the needs of an MS class. Specific examples of how cadets adopted and adjusted sport psychology interventions (e.g., reframing) to fit their performance needs will be provided. An ROTC manual that outlines each implemented intervention for all MS classes over the course of an academic year will be available. Overall, this workshop will engage members in a structured, detailed, and collaborative approach to developing and implementing sport psychology services with an ROTC program.

## **WKSP-14**

### **PSYCHOLOGICAL SKILLS TRAINING IN YOUTH SOCCER: A STATION-BASED APPROACH**

*Teresa Fletcher, Adler University, USA;*  
*Felix Yu, Adler University, USA;*  
*Carol Melso, Adler University, USA;*  
*Alan Masline, Adler University, USA;*  
*Alex Wulbecker, Adler University, USA;*  
*Jarrod Juszkiewicz, Adler University, USA*

Research over the past few decades supports the benefits of psychological skills training in youth sport to optimize the overall development of athletes (i.e., Gucciardi et al., 2009; Vealy, 1988; Visek, Harris, & Blom, 2013). Mental skills can be aligned with physical skill development to maximize a positive, healthy mindset and proactively develop good habits and life skills while enhancing performance. In sport, the surface and size of the playing field, the rules, and the equipment, all vary depending on the age, size, strength, or ability of athletes to optimize physical skill development. As players learn better by doing, coaches develop practice plans to divide the playing field into "stations" with high activity levels and age-specific drills. Practices are designed to isolate basic skills (i.e., dribbling, passing, shooting, etc) where kids are in smaller groups for shorter durations, while experiencing more repetitions and have better access to coaches and instruction. US Youth Soccer highlighted the benefits of training to optimize both activity level and engagement as well as long-term development. It is imperative, then, to implement a psychological training program that reflects this mindset. This presentation will expand on previous work with youth hockey where a station-based psychological skills training program was implemented with a youth soccer club consisting of 10 teams and included athletes ranging in age from 6-16 at various levels of competition. The purpose of this presentation is to: 1) Provide an overview of the literature emphasizing the role of psychological skills training in youth sport, specifically soccer; 2) Apply station-based training as a framework for developing an experiential sport-specific program; 3). Adapt the method of teaching mental skills to the physical and cognitive level of the athlete and; 4). Enhance graduate education in teaching students how to implement psychological skills training with a range of athletes.

## **WKSP-15**

### **COACHING ATHLETES FROM THEIR SEAT TO THEIR FEET: IMPLICATIONS OF CONSTRAINTS-BASED COACHING FOR MENTAL PERFORMANCE CONSULTANTS**

*Zach Brandon, IMG Academy, USA;*  
*Christian Smith, IMG Academy, USA;*  
*Lindsey Hamilton, IMG Academy, USA*

Constraints-based coaching has proved an effective approach to movement skill acquisition in sport and performance settings



(Newell, 1986; Newell et al., 2003). A constraints-based coaching approach is a pedagogical framework emanating from concepts in ecological psychology and dynamical systems theory (Renshaw et al., 2009). This approach to coaching identifies individual, task, and environmental factors as constraints that can be manipulated to enhance the effectiveness and efficiency of learning physical skills (Newell et al., 2003). Mental performance consultants (MPCs) should aim to optimize the environment around the athlete or team, and should do so by conducting interventions inside the athletes' performance arena (Larsen, Henriksen, Alfermann, & Christensen, 2014). Given that the job of an MPC is to help athletes acquire, refine, retain and transfer mental skills to enhance performance, it stands to reason that MPCs can draw principles from constraints-based coaching to frame their mental training programming and increase their impact on the athletes with whom they work. Therefore, the objective of the workshop is to introduce constraints-based coaching as a framework for how to develop mental skills and attributes. Specific learning objectives include (1) understanding mental skill development through a constraints-based coaching approach, (2) examples of constraints-based coaching in the training environment, and (3) variations of constraints-based coaching across sports. The workshop will include examples of in-training coaching techniques from the mental performance consultants' experience, as well as provide the attendees an opportunity to learn new mental skills activities by participating in interactive exercises. Attendees will also leave with handouts summarizing the core messages and ways to implement constraints-based coaching into their practice with all types of athletes.

## WKSP-16

### LET'S TALK ABOUT SUICIDE: KNOWING THE SIGNS, RISK FACTORS, AND BEST PRACTICES FOR ADDRESSING ATHLETE WELL-BEING

*Angel Brutus, Synergistic Solutions, LLC, USA;*  
*Rachelle Scott, Research Foundation CUNY, USA;*  
*Mitchell Abrams, Learned Excellence for Athletes, USA*

Suicide is the 10th leading cause of death in the United States and is considered a public health concern by the Centers for Disease Control (CDC, n.d.). Broaching the conversation of suicidality can be a jarring experience for practitioners, as there is often a fear of losing a client on the proverbial "professional watch". Both clinical and non-clinical sport psychology professionals have an ethical obligation to know the signs and symptoms of clients served to best gauge appropriate referral options to support athlete well-being. Given that sport-participation requires high levels of risk-taking, loss of fear, and perpetual building of tolerance and pain threshold, there are many factors to consider when working with athletes demonstrating additional risk factors for suicidality (Sommers-Flanagan & Shaw, 2017; Thomas, 2011). Discussion involving the effects of psychopharmacologic interventions on motor behaviors within the context of sport-performance will foster attendees' understanding of the complexities surrounding client well-being in the pursuit of elite performance. The Interpersonal-Psychological Theory of Suicide (IPTs) is the the dominant framework used when understanding why people engage in suicidal behaviors (Joiner, 2005; Van Orden, Witte, Cukrowicz, Braithwaite, Selby & Joiner, 2010). Through use of videos, case presentations, and role play, presenters will assist attendees in building skills to further understanding definitions, rates, screening options, and ways to assess for both risk and protective factors for suicidality within the athletic population via the Suicide Risk Assessment Decision Tree (Chu, 2015).

## WKSP-17

### INCORPORATING GAME-BASED STUDENT RESPONSE SYSTEMS – LIKE KAHOOT, SOCRATIVE AND QUIZLET – TO ENHANCE SPORT AND EXERCISE PSYCHOLOGY LEARNING IN THE CLASSROOM

*Ashwin Patel, Humber College, Canada;*  
*Greg Young, James Madison University, USA;*  
*Noah Gentner, Humber College, Canada*

Educators are constantly looking to technology to stimulate interest and engagement in students (Mu & Paparas, 2015). Beaudoin (2013) noted how the wealth of technology opportunities (e.g., Twitter, Youtube, smart-phones) combined with an increasingly tech-savvy student population, have made these modalities not only helpful, but essential to facilitate learning.

One such technological strategy is the use of student response systems (SRSs). Also known as "clickers", this interactive technology allows instructors to pose multiple choice questions to students who can respond electronically providing immediate feedback. While the use of "clickers" has been positive, drawbacks include a potentially high cost; and a lack of portability. However, a newer trend harnessing the benefits of "clickers" and portability is the incorporation of personal technology (e.g., tablets and smart phones) for teaching and learning activities (Afreen, 2014). This Bring-Your-Own-Device (BYOD) approach opens several avenues for learning in the classroom. The instructor can connect their laptop to a projector and administer a multiple choice quiz or poll through an SRS. Students can wirelessly connect with their devices and interact with peers and instructors, engaging in motivating and fun learning activities. However, with such advances in technology, come associated challenges as to deciding which SRS is best to enhance learning and retention in one's classroom?

This workshop will present three game-based SRSs (Kahoot, Socratic and Quizlet) that can be used in a sport and exercise psychology classroom. Consideration will be given to: 1) the functionality of each SRS, 2) how it can help promote student autonomy in learning, and 3) how to practically apply each SRS to facilitate a fun and competitive learning environment. Attendees will receive tip sheets on the SRSs as well as how to incorporate images and video clips in these applications to further enhance the learning environment.

## WKSP-18

### DON'T THROW GAS ON THE FIRE: EMOTIONAL CONTROL FOR COACHES

*John McCarthy, Boston University, USA;*  
*Val Altieri, Jr., Boston University, USA;*  
*Robert DiBernardo, Boston University, USA;*  
*Robert Diehl, Boston University, USA;*  
*Fritz Ettl, Butler University, USA;*  
*Frank Perry, Boston University, USA*

Because of the results-oriented culture surrounding sports coaching, emotional intensity can run high at all levels of sport (Coakley, 2011). In order to thrive within these emotionally charged environments, coaches can benefit from acquiring certain tools to help them regulate their emotions (Davis & Davis, 2015). When emotions are not regulated, verbal and nonverbal messages in the form of (i.e. anger, frustration,

disappointment, etc.) is conveyed by coaches that can be counterproductive to enhancing athlete performance. In many cases they may have negative impacts on athletes leaving them emotionally scorched (Baltzell et al., 2014). In addition, there is growing evidence on coach ill-being (Cropley et al., 2017; Fletcher & Scott, 2010). Therefore, it is vitally important for coaches to better understand and carefully consider the impacts of such emotional dysregulations. Fortunately, there are different ways of considering “distress tolerance” (Baltzell, 2016), and utilizing mindfulness-based approaches (Baltzell et al., 2014; Mannion & Andersen, 2016) to cultivate strategies for coping with the inherently demanding task of coaching (Longshore & Sachs, 2015). Mental performance consultants can use these mindfulness-based approaches to assist coaches in their emotion regulation. However, efforts in this regard need to be sensitive to coaches’ awareness of their ability to regulate emotions. Trying to persuade coaches to put mindfulness into practice may first require consultants to gain a deeper appreciation of coaching stressors and for them to practice educating coaches to consider novel approaches. The learning objectives of this workshop are threefold. First, participants will generate and share their understanding of the impacts of emotionally dysregulated coaching. Second, through role plays, participants will practice strategies that they can use to persuade coaches to consider mindfulness-based practice. Third, participants will practice mindfulness-based approaches and explore how they can be tailored for coaches in different contexts.

## WKSP-19

### SPORT PSYCHOLOGY AND PERSONAL FINANCE: MIXING OIL AND WATER

*Todd Gilson, Northern Illinois University, USA*

When Googling “how to become wealthy” a total of 326,000,000 webpages are returned in under one second. Content from this search will focus on anything from the five steps necessary to becoming a millionaire, secrets rich people know that you don’t, and even how hypnosis can help you break free of current financial barriers. Sifting through all of this information to even find a starting point is a monumental task, especially when one is consumed with trying to advance in a profession. Therefore, the purpose of this first of its kind workshop at AASP is to assist with understanding of key financial terms, the theoretical foundations of investing, and immediate strategies individuals can use to aid in financial decision making. First, participants will learn investment terms that are used in advertisements/prospectuses and how investing has produced huge gains (and losses) in the past. Moreover, by understanding core concepts such as Animal Spirits (Keyes, 1936), Intelligent Investor (Graham, 1949), Bottom-up (Lynch, 1989), and Keep It Simple (Bogle, 1999), individuals will be better able to align their investment decisions to their own personal philosophy(ies). Finally, through a self-reflection exercise, participants will be able to identify personal finance strengths and weaknesses and leave with actionable steps they can immediately utilize to advance their financial position. By acquiring greater insight into the value of personal finance, participants in this workshop will be poised to better exemplify the notion of money as a tool and the individual as the technician.

## WKSP-20

### UTILIZING A STANDARDIZED INTERVENTION PROTOCOL FOR THE IMPLEMENTATION OF THE REVISED PERFORMANCE PROFILE TECHNIQUE

*Elmer Castillo, Florida State University, USA;  
Matteo Luzzi, Florida State University, USA;  
Matthew Bird, Florida State University, USA;  
Graig Chow, Florida State University, USA*

To date, there is a dearth of standardized intervention protocols available within the sport psychology literature to guide sound intervention implementation and research. To address this issue, a systematic protocol and training manual were developed for the implementation of the revised performance profile technique (Gucciardi & Gordon, 2009) with athletes. As the performance profile is designed to enhance several psychological outcomes such as confidence, motivation, and self-awareness in athletes and teams, appropriate training is imperative to implement the latest iteration of this classic sport psychology technique with fidelity. The learning objectives of this workshop are threefold: (1) to briefly review the theory and research related to performance profiling including a recent intervention study we conducted with collegiate athletes, (2) to utilize the training manual and standardized intervention protocol, so that workshop attendees can implement the different stages involved with the revised performance profiling technique, and (3) to suggest and discuss various alternative uses and adaptations of the technique. Teaching methods include a brief didactic component, experiential learning to provide hands-on experiences for participants, and role-plays to allow practice. The standardized intervention protocol and revised performance profile worksheets will be disseminated for review and completion through the collaborative workshop. Questions and feedback will be encouraged at the conclusion of the workshop.

## WKSP-21

### STILL LEARNING TOGETHER: A CASE STUDY WORKSHOP FOR NON-CERTIFIED STUDENTS AND PROFESSIONALS

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Ashley Coker-Cranney, West Virginia University / MindRight  
Performance Consulting, LLC, USA;  
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Ashley Samson, California State University, Northridge, USA*

Although many students benefit from peer networking within their respective programs, opportunities to benefit from peers outside those programs are often limited to regional conferences and texts (e.g., Aoyagi, Poczwadowski, & Shapiro, 2017). The last two years, AASP has offered a case study workshop open to students and non-certified professionals at the national conference. Similar to its first offering in 2016, attendees gave positive feedback after the 2017 workshop, sharing: “Definitely beneficial to students like myself. Hopefully will become a regular part of the program.” and “This is such a valuable workshop. It is practical. It is thought-provoking ... I hope to see this workshop continued to be offered.” Given the benefits of peer mentorship (e.g., Chester et al., 2013; Dennison, 2010; Furnisky et al., 2013), and positive response to the workshop, we aim to continue offering this workshop to students and non-certified professionals alike.

To improve the workshop, only one case conceptualization will be presented for review to ensure time for group discussion, and question and answer time with the panelists. However, the case will include multiple time points to challenge attendees to consider the case long-term with continued assessment and flexible intervention planning. During the workshop, attendees will split into small groups, each assigned a specific topic – conceptualization, intervention development, ethical considerations, and evaluation. During large group discussion, students will share their ideas and hear expert panelists' reactions. Panelists will provide students with unique perspectives as they represent various training backgrounds and diverse work settings. To provide additional peer-networking opportunities, groups will be re-assigned between case time points.

Continuing to offer this workshop builds on AASP's commitment to the next generation of CMPC's, providing an opportunity for non-certified attendees to grow peer networks, learn from certified professionals, and build confidence in their practical skills.

### WKSP-22

#### **THE ATHLETE GRATITUDE GROUP (TAGG): A POSITIVE PSYCHOLOGY INTERVENTION FOR ATHLETES AND TEAMS**

*Nicole Gabana, Florida State University, USA*

Gratitude has been identified as a life skill worth cultivating within the youth population given its association with numerous indicators of well-being (e.g., increased positive affect, optimism, social connectedness, and hope; decreased depression and anxiety). Additionally, gratitude has been correlated with increased life and sport satisfaction, perceived social support, and decreased burnout and psychological distress among high school and collegiate athletes (Chen, 2013; Gabana et al., 2017). Learning how to intentionally cultivate gratitude can be a valuable life skill, allowing one to reframe negative situations and persist in the face of adversity. In sport and life, resilient individuals persist by utilizing effective coping strategies. Gratitude can serve as a positive coping mechanism which boosts resiliency (Bono, Krakauer, & Froh, 2015). While one-time interventions have demonstrated significant benefits, multi-session gratitude interventions have the potential to strengthen these effects, as well as team dynamics. The purpose of this experiential workshop is to present The Athlete Gratitude Group (TAGG), a newly developed positive psychology intervention aimed at helping athletes, coaches, and teams practice and cultivate gratitude in life and sport. This group program has been adapted from a general Gratitude Group Program originally designed and tested by Wong et al. (2017) who found that post-intervention, college student participants demonstrated significant increases in state gratitude, life satisfaction, and meaning in life, and a significant decrease in psychological distress. The Athlete Gratitude Group consists of six 60-minute sessions including Micro Gratitude, Macro Gratitude, Interpersonal Gratitude, Intrapersonal Gratitude, and Redemptive Gratitude. During the workshop, the facilitator will begin with a 10-minute overview of TAGG. Next, attendees will participate in a 45-minute simulation of the first group session. The remaining 15-20 minutes will be dedicated to a discussion of considerations and practical guidelines for implementing gratitude interventions with athletes and teams, followed by a Q&A period.

### WKSP-23

#### **WHAT WE REALLY TELL OUR CLIENTS: APPROACHES AND METHODS THAT WE DON'T LEARN IN TEXTBOOKS**

*Jean Francois Menard, Kambio Performance Inc., Canada*

It is exciting to witness how much the field of performance psychology has grown during the last few decades. There is more and more mental performance consultants (MPCs) being utilized in several different high-performance industries (Cremades & Tashman, 2014; Schinke & Hackfort, 2016). Many universities across the globe have built robust applied performance psychology programs to train students to deliver quality services to performers who want to achieve their goals. Even though several programs provide vigorous applied training, reality is very few young MPCs feel well equipped and ready to jump into the consulting world. While conferences, books, seminars, and podcasts can offer some insightful educational tips to develop as MPCs, some of the most powerful learning strategies are sharing with other professionals in our field (Lee, Gillespie, Mann, & Wearing, 2010) and having a growth mindset about ongoing learning (Dweck, 2012). Nurturing learning opportunities is essential to thrive (Trudel & Werthner, 2009) and it is advantageous to have the willingness to both give and receive advice and ideas (Pyrko, Dorfler, & Eden, 2016). Through mastermind groups and personal networking, there is tremendous value in hearing from colleagues about how they dealt with unique and challenging situations. The learning objectives of this workshop include: identifying, planning, and executing specific approaches to working with individual athletes and teams, handling challenging situations that emerge working with athletes, and creating and managing a business in sport psychology. Participants will hear about specific methods utilized in a consulting private practice and receive a handout to guide their own work.

### WKSP-24

#### **PREPARING FOR TRANSITION: IMPLEMENTING THE STUDENT-ATHLETE RETIREMENT PROGRAM (SARP) WITHIN A COLLEGIATE ATHLETIC DEPARTMENT**

*Joanne Perry, UNC Charlotte, USA;  
Ashley Hansen, Saint Louis University, USA;  
Taylor Montgomery, Saint Louis University, USA;  
Michael Ross, Saint Louis University, USA;  
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Only a small percentage of collegiate student-athletes continue competitive sport following graduation. Given that 15-20% of elite athletes report clinically significant distress following sport retirement, preparing student-athletes for this transition is critical (Alfermann, 2000). Furthermore, the demands of collegiate athletics may prevent student-athletes from engaging in exploratory and planning activities that help prepare for life after graduation (e.g., summer internships). In order to holistically support student-athletes, interventions addressing this transition are warranted. Surprisingly, no universal programs have been established; therefore, many universities have created their own (Leonard & Schimmel, 2016; Reifsteck & Brooks, 2017). The current workshop will teach attendees how to implement the Student-Athlete Retirement Program (SARP), aimed at facilitating a successful transition out of sport. The SARP utilizes Schlossberg's (1984) human adaptation to transition model as a theoretical framework and includes four major sections: (1) psychoeducation, (2) psychological interventions (i.e.,

cognitive-behavioral techniques, value-based goal setting, and an identity exercise), (3) discussions to process the end of collegiate sport, and (4) the identification of additional resources. There are three learning objectives of this workshop: (1) briefly review the experience of student-athlete sport retirement, (2) introduce the structure, content, and evaluation of a pilot program for athletes transitioning out of sport, and (3) utilize small groups to practice interventions and exercises. Within the small groups, attendees will be asked to participate in experiential exercises used in the program to process their own transitions (e.g., sport retirement, college graduation). Exercises will help attendees gain a comprehensive understanding of how these interventions are used in a group setting. Additionally, small groups will enable collaboration between workshop attendees and consultation from workshop leaders. All attendees will receive access to a SARP manual, enabling individuals to replicate this program at other universities and/or settings.

## WKSP-25

### LINKING FUN TO PHYSICAL LITERACY AND THE 3PS: A LOGIC MODEL APPROACH TO TRANSFORMING YOUTH SPORT CLIMATES

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Heather Mannix, George Washington University, USA;  
Monna Arvinen-Barrow, University of Wisconsin - Milwaukee, USA*

Fun is not a mutually exclusive experience apart from athletic development; however, adults' misguided schema for fun often minimizes the significance it plays in the development of young athletes (Blinded, 2018). Therefore, the purpose of this workshop is to introduce attendees to a logic model approach to understanding relationships among fun (i.e., within the scope of the fun integration theory; Blinded, 2015), physical literacy (i.e., motivation, confidence, and physical competence; IPLA, 2014), and the 3Ps (i.e., enhanced performance, personal development, and sustained participation; Côté & Hancock, 2014). Logic models are useful because they can help key stakeholders including coaches, administrators, and parents understand the deliberate flow of a young athlete's sport activities that are intended to lead to specific outcomes. Using the logic model as a program planning tool, at the conclusion of the workshop, attendees will be able to: (a) identify and debunk common misconceptions of fun; (b) develop creative solutions for transforming adults' misguided schema of fun to one that is astutely informed by science; (c) apply these solutions within the American Development Model (USOC, 2014), a pathway supporting young athletes' healthy sport experiences; and (d) generate specific recommendations for making fun a focal point of youth sport programming for both recreational and high-performance pathways. This workshop will share the latest research findings with respect to sport-based fun and will use didactic, complimentary teaching methods including story telling, picture prompts, think-pair-share interactive techniques, and word walls to achieve the learning outcomes. Workshop materials will be provided to attendees to facilitate their efforts at implementing evidence-informed approaches in the sport settings in which they practice. These materials will include: innovative infographics displaying complex, multivariate fun research in easy, consumable images; pocket guides for parents and coaches; and, recently published literature on the fun integration theory.

## WKSP-26

### MARKET LIKE A PRO: LEVEL UP YOUR CONSULTING PRACTICE WITHIN THE NEXT YEAR

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Being a competent practitioner doesn't mean much if you can't get the word out that you exist. In order to do the work, you need to get the work. You don't have to have an MBA to understand that marketing a business in 2018 is much different than what it looked like even 20 years ago (Kerulis & Cheadle, 2015). The rapidly changing world of mobile and web-based technology has some practitioners, especially late technology adopters, feeling confused, overwhelmed, and intimidated (Cheadle, Pfenninger, & Carlson, 2014).

The importance of developing business skills has been recognized by the field of sport psychology (Blann, Shelley & Gates, 2011; Taylor, 2014). We spend hours on continuing education for sport psychology competency. If you are in private practice, it's just as imperative to spend time continuing your education on the best practices of entrepreneurship and building a successful business.

This workshop will be facilitated by two successful practitioners who have embraced their continuing education in best business practices and have built thriving businesses. In this workshop, you will learn effective strategies covering five different areas in order to feel confident in your ability to market like a pro. Topics covered include: 1) creating a social media presence with tips for Facebook, Twitter, and LinkedIn, 2) building an opt-in email list to create a strong relationship with your "fans", 3) generating traditional media (i.e., newspaper, radio, etc.), 4) leveraging marketing through publishing, and 5) emerging opportunities in podcasting. Workshop participants will walk away having identified their own first steps for their marketing goals as well as essential knowledge and cutting-edge resources for marketing like a pro.

## WKSP-27

### TRAINING POLICE FOR DEADLY FORCE ENCOUNTERS: A ROLE FOR SPORT PSYCHOLOGY

*John Heil, Psychological Health Roanoke, USA*

Police use of deadly force has a profound impact on the community, the law enforcement agency and the police officer. The infrequency and unpredictability of these encounters creates a significant training challenge. The use of sport psychology principles and practices in training for deadly force encounters may improve decision making and skilled performance, minimize loss of life, and facilitate officer coping with post incident trauma.

The learning objectives are: 1-provide insight into the performance challenge faced by police officers in the use of deadly force; 2-develop a general understanding of the application of psychology principles in police tactical environments; and, 3-gain awareness of a specific police deadly force training program that is the result of 15-year collaboration between a sport psychologist and an urban police tactical team.

The learning methods include: group discussion, case study review, and a didactic overview of relevant principles and practices. Materials include: a presentation overview, a paper blending flow theory and critical incident stress, and access to a high fidelity simulation training manual jointly produced by the sport psychologist and police tactical team.

The session opens with a series of discussion questions addressing common perceptions of deadly force encounters, in order to raise awareness about decision making, parameters of engagement and performance challenges. This is followed by a brief case study detailing a deadly force encounter, which will serve as a stimulus to subsequent discussion regarding concepts including high fidelity simulation, critical incident stress, flow theory, cognitive priming, normalization of cognitive disruption/distortion, and stress inoculation.

An overview of a multi-dimensional training program integrating sport psychology and police-based tactical training is presented, which includes: didactic instruction, high fidelity simulation, blended tactical and psychological debriefing, and video review with guided psychological self-critique. The program concludes with comment on the potential for high quality training to overcome implicit racial bias.

### **WKSP-28**

#### **IT STARTS WITH THE COACH: EVIDENCE-BASED STRATEGIES FOR IMPROVING COACH-ATHLETE RELATIONSHIPS AND COMMUNICATION IN TRAINING AND COMPETITION ENVIRONMENTS**

*Lucy la Cour, University of Missouri, USA;  
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Research highlights impact of the coach-athlete relationship on athlete performance enhancement and well-being separately, indicating it as a vital component of performance (Jowett & Poczwardowski, 2007; Kerr & Dacyshyn, 2001; Poczwardowski, Barrot, & Henschen, 2002). After studying auditory and visual recordings of coach-athlete interactions within a Division I gymnastics program, one salient finding is that performance and well-being of athletes are intertwined, such that direction and strength of athlete performance mirrors direction and strength of coach-athlete relationship. One critical piece that builds healthy relationships is congruence, meaning that coaches' actions match their words, leading to reciprocal trust and respect. This relationship allows for a more effective training environment as athletes' desire for relatedness along the motivation continuum is satisfied (Ryan & Deci, 2000; 2002). One component of this training environment is active-constructive instruction (ACI). ACI is a coaching tactic characterized by language highlighting, for example, what was positive about the performance, why that performance was achieved, and how to improve upon or repeat said performance.

This workshop's teaching methodology includes review of literature, findings of our applied experience, and teaching demonstrations. Partner exercises geared towards ACI in a performance setting to follow. Demonstrations will highlight typical ways coaches offer feedback and encouragement, followed by discussing how ACI positively impacts these. Workshop participants will partner up and experience utilizing ACI while teaching a specific sport skill.

Learning objectives highlight health of coach-athlete relationships as the cornerstone in securing athlete well-being, making high performance more approachable. We intend to increase CMPCs' awareness of coaching behaviors directly impacting athletes' performance and well-being. Thus, we improve athletes' sport environment by going through coaches to athletes rather than focusing solely on athlete intervention. Participants will receive packets of information regarding research findings and best practices concerning working with coaches and athletes on this critical relationship.

### **WKSP-29**

#### **INCLUSIVE LANGUAGE STRATEGIES FOR WORKING WITH TRANSGENDER ATHLETES**

*Elizabeth Mullin, Springfield College, USA;  
Ryan Socolow, Springfield College, USA*

The trans population intersects all social domains, including sport. Some transgender people may stop involvement in sport prior to and/or during transition because of feelings of alienation or experiencing discrimination in their sport (Hargie et al., 2017). The trans population is increasingly linked to poorer mental health outcomes, including higher levels of alcohol and drug abuse, depression, anxiety, targeted abuse/assault, suicidality, and lower education levels (Singh et al., 2014). The Minority Stress model (MSM; Meyer, 2003) can be used to illustrate the connection between distal and proximal stressors and the severity of symptoms in mental health disorders. It posits that stressful social environments, such as sport, can disproportionately affect members of heavily stigmatized groups. Not only are trans athletes coping with the typical stressors of sport, they are also struggling with feelings of gender dysphoria, or incongruence between the actual and ideal physical self. Inclusive language used to address and describe these minority members can be one way to change the way trans athletes are viewed when participating in sport. The purpose of this workshop is to identify strategies for appropriate use of inclusive language with trans athletes in one-on-one and team settings. The presentation will begin with an overview of the MSM and its application to sport and identify a host of communication-related stressors for trans athletes common to sport. Attendees will learn and practice a number of communication approaches MPCs can use in one-on-one interactions with trans athletes, or when supporting a team where a trans athlete comes out and/or begins transitioning. Group-based facilitation strategies will be demonstrated during break out discussions. Attendees will engage in role playing one-on-one strategies. Attendees will receive handouts outlining the theoretical framework and approaches practiced in the workshop.

### **WKSP-30**

#### **TEACHING POSITIVE PSYCHOLOGY TOPICS IN SPORT PSYCHOLOGY CLASSES**

*Lisa Miller, American Military University, USA*

How do positive psychology and sport psychology intersect in the sport psychology classroom? Where would positive psychology fit into the typical sport psychology learning objectives? These questions challenge sport psychology faculty to consider how to incorporate the increased interest in positive psychology techniques for coaches, athletes, and other sport leaders and learners. The search for new

positive ways to train, motivate, and lead others infiltrates into new ways of teaching sport psychology. Are sport psychology faculty discussing ways to synergize meaningful contemplation about this intersection (Seligman, 2011; Ryan & Deci, 2000)? In what ways could we begin to address positive psychology in classroom discussions, assignments, and group interactions (Kinnunen & Windmann, 2013)? The current workshop provides information on positive psychology in the sport psychology classroom. The learning objectives of the workshop include: exploring the topic intersections of positive psychology with sport psychology; mapping curriculum adjustments with the addition of positive psychology; and discussing resources to facilitate confidence in positive psychology teaching for sport psychology faculty. Attendees will learn how to utilize teaching techniques of positive psychology to facilitate sport psychology outcomes, map patterns of positive psychology in the sport psychology curriculum, and teach approaches that incorporate positive psychology interventions into sport psychology classes both in-person and online.

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**Patrick Young**, Wingate University  
**Reginald Younger Jr.**, VRC Sports Psychology Performance Consulting Group P.L.L.C.  
**Rebecca Zakrajsek**, University of Tennessee  
**Sam Zizzi**, West Virginia University  
**Brian Zuleger**, Adams State University  
**Itzhak Zur**, Sport & Performance Psychology of New York

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