Abstract Summary
(In alphabetical order by first author surname)

Ref: Invited Workshop
Topic: Performance Psychology

‘Bringing Thrive Alive’
Danielle Adams, Norenberg IoS

The EIS psychology team’s modus operandi #ProjectThrive is aimed at the development of psychologically informed environments within Team GB that enable individuals to thrive. In this context, ‘thrive’ has been defined as, ‘being energised through the joint experience of growth, challenge and success in pursuit of evolving human performance’. In this workshop, the development journey of #ProjectThrive, guiding principles and case studies will be shared alongside supporting group work opportunities. The aims of the workshop are twofold, firstly, to consider the translation of working knowledge into guiding principles that are appropriate in the current context of performance sport guided by the ultimate objective of ‘thriving’, and secondly explore the application of #ProjectThrive principles with specific focus on delivery at a system/environmental level. Participants can expect to leave having developed guiding principles that represent their own working philosophy, having considered the notion of thriving and operating at a system level, as well as experienced exposure to operating examples of sport psychology delivered according to #ProjectThrive on a variety of levels within Team GB performance sport environment.

Ref: 3528 Workshop
Topic: Performance Psychology

Using Single-Case Experimental Designs (SCEDs) in applied sport and exercise psychology
Jamie Barker¹, Marc Jones²
¹Loughborough University, ²Manchester Metropolitan University

Objectives/Purpose/Background: Much applied work in sport and exercise psychology is conducted with small samples or individuals making it difficult to determine change through conventional group methods and analysis. Finding methods to rigorously determine change are necessary to establish consultant, researcher, and/or coach effectiveness. Single-case experimental designs (SCEDs) are a form of ideographic research design that offer an appropriate and powerful method to explore intervention efficacy and effectiveness in applied practice (Barker, McCarthy, Jones, & Moran, 2011; Barker, Mellalieu, McCarthy, Jones, & Moran, 2013). SCEDs are accordingly appropriate for applied researchers and practitioners who seek to explore the effects of their work with various client groups.

Design/Background/Key Points: This 2-hour interactive and discursive workshop (aimed at both researchers and practitioners working with athletes or exercise participants) will
provide delegates with information and guidance on using SCEDs in practice and research. For example, information is provided regarding behavioral assessment, general procedures in SCEDs, key research designs, and data analysis procedures. This workshop will enable delegates to demonstrate an informed knowledge of SCEDs including:

1. General procedures and behavioral assessment
2. Research designs including the A-B and multiple baseline
3. Data analysis including visual, graphical, and statistical techniques.
4. Assessing treatment efficacy and effectiveness including the use of social validation and the development of effective performance indicators

Methods/Conclusions: Delegates will be provided with knowledge and insights into how best to apply SCED procedures into their applied practice and research to enable them to determine their accountability and provide beneficial feedback to their clients.

Ref: Panel Discussion

Sport psychology in disability and Paralympic sport – Considerations for practice

Jamie Barker¹, Clare Cunningham², David Shearer³, Andrew Wood⁴
Loughborough University¹, British Paralympic Association², University of South Wales³, Staffordshire University⁴

In this session, the panel will discuss the role of sport psychology in supporting those competing in disability and Paralympic sport. Drawing on a range of experiences, including as athletes and practitioners, the panel will discuss a range of questions around the considerations which are important when providing sport psychology in disability and Paralympic sport and the way this varies from working with non-disabled athletes. The panel will also discuss questions from the audience to give insight into ways to ensure the best support for all athletes.

Ref: 3990 Experimental & Applied Poster Presentation
Topic: Mental Health and Wellbeing

Investigating the relationship between young adult’s emotion regulation and indicators of mental health in sport

Georgia Bird, Jennifer Cumming, Mary Quinton
University of Birmingham

Objectives: Based on the tenets of the Process Model of Emotion Regulation (PMER), this study investigated the relationship between reappraisal and suppression and positive and negative indicators of mental health amongst University sport participants. It was hypothesised that reappraisal would be associated with lower levels of depression and greater levels of positive mental health (PMH), whereas suppression would be associated with greater levels of depression and reduced PMH.
Design: Cross-sectional.

Methods: Participants were recruited from University sport clubs (N = 185; M age = 20.19; SD = 1.45; 87 male, 98 female) and completed a multi-section questionnaire pack including demographics, depression, anxiety, and stress scale-21, positive mental health scale, and emotion regulation questionnaire.

Results: Following preliminary analyses, hierarchical multiple regressions were calculated with depression or PMH at Step 1 and reappraisal and suppression at Step 2. Reappraisal positively predicted PMH after controlling for depression (ΔR² = 0.05, ΔF (2, 181) = 6.23, p = 0.002, suppression β = -0.052, p = .402 reappraisal β = 0.21, p = .001), but neither strategy predicted depressive symptoms after controlling for PMH (ΔR² = 0.003, ΔF (2, 181) = 0.407, p = 0.667, suppression β = 0.052, p = .413 reappraisal β = -0.03, p = .706).

Conclusions: Results highlight the potential for sport as a context for promoting PMH through the use of reappraisal. In line with the PMER, antecedent strategies appear adaptive for this population and associated with PMH. Findings may implicate how athletes and coaches promote wellbeing through sport.

Ref: 3694 Case Study
Topic: Mental Health and Wellbeing

Wellbeing and youth talent development: A strengths-based approach to sport psychology services
Kim Blewett, West Bromwich Albion FC

Purpose: The purpose of the present case study is to describe a strengths-based intervention package delivered in a UK category one football academy.

Background: The English football academy systems have undergone significant changes in recent years including increased staffing and multidisciplinary working, and an ever-increasing focus on holistic player development. Players within academy systems go through adolescence and critical moments in their football journey simultaneously, often creating challenges to mental health and wellbeing for players, and the staff in recognising and supporting these.

Method: The case study describes the consultancy process of a strengths-based intervention package delivered by the lead sports performance coach at the organisation. The intervention strategy looked to build on organisational strengths with two clear aims: 1) to foster enhanced collaboration amongst staff, particularly with regards to mental health and wellbeing, and 2) to enhance individualised support in place for players. 45 part and full-time members of staff were part of a three part intervention strategy: 1) self-awareness building, 2) adolescent growth and maturation education, and 3) group formulation and the introduction of a specialist group to aid management of concerns.

Conclusions: The strategy employed demonstrated success in fostering enhanced collaboration through developing a shared understanding of challenges and concerns.
Additionally it also increased staff confidence in dealing with challenging behaviours through the maximisation of individualised support strategies. While this study is based within a unique environment, this represents a successful intervention to enhancing wellbeing while successfully developing youth talent in an elite youth sport system.

Ref: 3644 Workshop
Topic: Sport & Exercise Psychology in the 21st Century

The performing well framework: Developing shared understanding in a high-performance context
Chris Bradley, Jon Marzetti, Alex Feary, Giles Carre
Changing Minds UK

Background: This workshop aims to illustrate an advancement in the practice of sport psychology from the traditional ‘mental skills’ approach to a more holistic way of working. Performing Well adopts a holistic approach to understanding the developmental needs of individuals, teams and organisations seeking to both enhance performance and support wellbeing. When striving to achieve great things in high performance, it can get ‘messy’. Pushing ourselves to the edge can lead to psychological distress and some dysfunction can be expected rather than avoided or denied. Relationships with people around us are vital as one person cannot be expected to have all the answers. Although sometimes appearing unusual, all behaviour is understandable in the context of the person and their environment. Shared understanding gives us a chance to recognise what we are dealing with by identifying any barriers to success and prompt more impactful solutions and impactful interventions.

Key points: Everyone in a performance system has a different perspective and can describe a situation from their own unique, isolated perception which paints a picture of a complex reality. Giving people the opportunity to share perspectives by collaboratively engaging in purposeful discussion and reflection – developing shared understanding – allows teams to arrive at a more accurate conclusion.

Conclusions: Appreciating the complexity of a situation through skilful facilitation helps identify any barriers to success and avoids people working in isolation. This prompts more coordinated solutions and impactful interventions. It also provides the opportunity to approach ‘difficult’ conversations about the things people are potentially avoiding.
A cross sectional survey of national football associations in Europe support for dual careers and mental health

Gavin Breslin, Stephen Shannon, Kyle Ferguson, Tandy Jane Haughey
Ulster University

Objectives/Purpose/Background: To explore, across Europe, national football associations support for player dual career and player and coaches mental health.

Design/Background/Key Points: Cross sectional online survey

Methods/Conclusions: Forty-one participants took part (male=38, female 3, mean age = 47.5, SD= 11.25). When duplicates were removed a total of 28, from a potential 55, European Football Associations were represented.

Results/Conclusions: The survey showed 60% of associations had a dual career programme in place. 52% of associations provided opportunities for players to learn about their mental health. Participants were asked did their National Association have a strategy/policy to support players and coach’s welfare, mental health and education. Policies/strategies were most likely to be in place for coach and player’s education, while mental health and welfare were least likely to be supported. 65% of associations did not have a mental health policy/strategy for players, 60% did not have a welfare policy or strategy. For coaches, 85% of associations did not have a policy/strategy in place to support mental health or welfare. However, associations had the view that mental health should be supported.

Conclusions: Football association across Europe should consider aligning their policy and strategies on dual careers to the guidelines provided by the European Union on athlete dual careers. More proactive attempts are required to support players and coaches mental health and wellbeing.

Dispositional profiles and situational achievement goals: the consequences for task performance

Rebekah Brockbank, Durham University

Objective: Achievement Goal Theory (AGT) postulates individuals are motivated to achieve through mastery and performance-based achievement goals, in dispositional (domain general) and situational (task specific) orientations. However, little is know about the consequences of the interaction of dispositional and situationally oriented mastery and performance goal conditions. Therefore, this study investigated the effects of goal interaction on task performance. The primary hypothesis was that performance would be better when imposed situational goals were congruent with individuals' dominant
Dispositional goal, then when they were incongruent.

**Design:** Using a repeated-measures, mixed model design participants completed a reaction time task under mastery and performance goal conditions.

**Method:** UK University students and sports club members (N=86) were opportunistically sampled. The Achievement Goal Questionnaire – Sport (AGQ-S) was used to determine participants’ dispositional orientation. After being presented with goals (counterbalanced across participants), participants completed questionnaires assessing their situational orientation, goal valuation and state anxiety, prior to a computerised reaction-time light tapping task.

**Results:** More participants held a mastery dominant (n=50) then performance dominant (n=24) dispositional orientation. However, contrary to our hypothesis, reaction times were significantly faster in the performance goal condition (p=.039), for both mastery and performance dominant participants.

**Conclusion:** Results suggest that performance goals motivate individuals to react faster, irrespective of their dispositional orientation. As reaction times are used as a core component of successful performance in a range of cognitive and physical tasks, this study demonstrates the need for further investigation into the consequences of achievement goal environments on athlete performance.

**Ref:** 3600 Review/Theoretical & Practice Oral Presentation
**Topic:** Sport & Exercise Psychology in the 21st Century

**The participation and performance podcast: Exploring new approaches to teaching sport and exercise psychology**
*Daniel Brown, Thomas Langston\nUniversity of Portsmouth*

**Purpose:** Create and trial a podcast series to support undergraduate student learning of sport and exercise psychology (SEP) content.

**Background:** With growing numbers of students accepted onto undergraduate degree programmes, a rising concern for academic staff is ensuring that all students are adequately supported to progress through their studies. Increasingly, staff cite poor student engagement (e.g., lack of interaction with learning resources) as a barrier to learning, with students also commenting that the timing and length of lectures result in non-attendance. A challenge faced by staff, therefore, is to generate alternative or supplementary methods of educational delivery which overcome these issues and stimulate students’ engagement in their learning.

**Methods:** The Participation and Performance Podcast was created and five episodes were released to students. The podcast captured discussions between the host and experts as they explored and examined core and contemporary areas of SEP (e.g., stress and coping, sedentary behaviour). Each episode was aligned to taught content and therefore offered
students a supplementary resource to support their acquisition of subject knowledge alongside existing materials. However, unlike traditional teaching methods, the podcast was available as an audio resource for students to download and listen to at their own convenience.

Conclusions: Student feedback indicated better understanding and interest in SEP after listening to the podcast. However, despite indicating high levels of intention to use the podcast to assist revision, students’ access of the resource was low. Impact on student attainment and reflections on the experience of creating a podcast will also be presented.

Ref: 3527 Review/Theoretical & Practice Oral Presentation
Topic: Mental Health and Wellbeing

‘Do me a favour and ask if you need some help’: Understanding antecedents leading to adverse mental health in professional sport
Thomas Buck, Robert Morris
Liverpool John Moores University

Objectives/Purpose/Background: The study builds on previous literature and provides a unique insight into the experiences and careers of world class, elite level athletes who have suffered with mental health issues. The objective of the study was to explore the potential antecedents leading to adverse mental health in professional athletes and into retirement. The study aimed to investigate what factors were most common in potentially causing mental health issues during a playing career, and subsequently into retirement, and also the general understanding, awareness and treatment of any mental health issues during and post-career.

Methods/Conclusions: The participant sample in particular offers a unique perspective, recruiting four ex-professional athletes from football (English Premier League), English Rugby League, and English Cricket. All participants had competed to the highest elite level possible, achieving sustained success in their careers, as well as also competing to international level for their respective countries. All participants also revealed experiences of dealing with adverse mental health during their career and/or into retirement. The study is qualitative in its methodological design and employed the use of in-depth, semi-structured interviews with participants. The study was designed as an exploratory study in order to understand potential antecedents of adverse mental health based on the findings of previous literary recommendations. Participants were recruited purposively through the use of a gatekeeper.
An inductive thematic content analysis following Braun and Clarke’s (2006) six phases of thematic analysis was conducted to reveal emergent themes. Themes were all associated with experiences of adverse mental health, and were categorised as; Mental Health, Transitions, Identity, Injuries, and Coping Strategies.

Results/Conclusions: Results of the thematic analysis revealed themes of Mental Health, Transitions, Identity, Injuries, and Coping Strategies. The themes all showed various antecedents of adverse mental health issues, and also showed evidence of mental health issues being worsened by the themes mentioned above. Associations between themes were
also found to be a prominent effect on mental health issues, E.g. failure to plan for retirement transition leading to a loss of identity, affecting ability to cope adaptively, leading to AMH, or worsening an existing issue.

Each theme represented a process of causing/leading, or exacerbating an existing mental health issue. Conclusions suggest a holistic improvement in the professional support services available to professional athletes during their careers through to and into retirement. Recommendations regarding the overall understanding, awareness and education of mental health issues in professional sport environments are made with a focus on improving self-awareness in athletes in order to recognise and prevent further mental health issues & maladaptive coping mechanisms in pro sport, as well as a greater emphasis on understanding and treating issues when retiring from sport.

Ref: 3565 Experimental & Applied Oral Presentation
Topic: Performance Psychology

Mental performance training and collegiate softball umpires’ self-efficacy:
The effect of a workshop approach on self-efficacy
Megan Buning, Hannah Bennett
Augusta University

Background: Mental performance training (MPT) is used frequently to help athletes overcome psychological barriers to peak performance (e.g., self-talk, routines, negative psychological states, focus). Game officials, necessary components to competition, are vital to competition outcomes and are targets for heavy scrutiny and criticism. Self-efficacy (SE) is the cornerstone for performance, and conceptual models of SE for this population have been explored, but quantitative evidence of how MPT could benefit this population is lacking. Using Bandura’s SE model and SE studies, sport researchers have hypothesized that referees with high occupational SE should make faster and more accurate decisions, receive higher satisfaction marks from coaches and athletes, and experience less occupational stress.

Purpose: The purpose of this study was to explore how MPT can be applied to collegiate softball umpires’ training camps to improve umpires’ SE toward their ability to umpire. The relationship between SE and performance evaluation scores was examined.

Methods: Collegiate umpires (n = 45) took part in an MPT workshop (14 hours) at a training camp. Umpires completed an occupational SE survey pre- and post-workshop.

Results: Umpires were highly confident pre-MPT, ranging from 80% to 85% across four SE subscales. Paired samples t-tests revealed significant improvements in general SE (+2%) and resilience of SE post-test (+2%). There was no change in SE in the ability to regroup or SE to control distressing thoughts. Performance evaluations were not significantly correlated to SE.

Conclusions: Results are guiding additional MPT opportunities for umpires and other officials. A control group has been added.
Experiences influencing walking football initiation in 55-75 year-old adults
Rachel Cholerton, Jeff Breckon, Joanne Butt, Helen Quirk
Sheffield Hallam University

Objectives/Purpose/Background: The purpose of this study was to explore experiences of walking football initiation in 55-75 year old adults.

Design/Background/Key Points: A pragmatist approach informed the study design. Due to the exploratory nature of this topic, qualitative enquiry was used to address the research aims.

Methods/Conclusions: Walking football players were purposefully sampled. In line with physical activity maintenance research (Van Stralen et. al, 2008) participants were maintaining walking football play for over six months. 17 players were interviewed, and transcripts then transcribed and analysed using inductive thematic analysis (Braun & Clarke, 2006). Triangulation of data themes was used as one method to ensure trustworthy analysis and conclusions drawn.

Results/Conclusions: Several factors and experiences perceived to influence initiation, before and during the initiation process, were identified. Themes representing pre-initiation influences included factors delaying participation. Further higher-order themes were found, relating to positive and negative experiences during initiation, influencing ongoing engagement. Influences pre-initiation included previous sporting experiences and values and perceptions. Positive experiences during initiation included mental development and social connections. Negative experiences included physical inability and social-specific restraints.

Conclusions: This research highlights new knowledge surrounding initiation of walking sports in older adulthood. The importance of values and perceptions, alongside the awareness of walking football, opens up discussion points on how to diversely promote the sport to reach potential players. As walking football may empower older adults to cognitively and socially develop, clubs and sporting bodies should consider tailoring sessions for different ability levels and genders, alongside promoting awareness of a positive club environment.
An exploration of athlete leadership and leadership development within an elite professional youth football academy

Isobelle Cocker¹, Stewart Cotterill²
¹University of Winchester, ²AECC University College

**Objectives:** To explore the perceptions of premier league football club academy players regarding athlete leadership and leadership development.

**Design:** The current study adopted a qualitative research thematic analysis approach. Thematic analysis was deemed the most suitable methodological approach due to the flexibility in its epistemological position; enabling the researcher to identify the participant’s experiences of leadership while also understanding the meanings attached to these experiences and the effect that the broader academy context has had on perceptions.

**Methods:** 34 elite male youth football players from 8 different age groups were recruited from one professional English football academy. Semi-structured focus groups, of 3-5, were conducted with each age group. Data were analysed adopting an inductive thematic analysis approach.

**Results:** Two super-ordinate themes emerged from the data analysis: qualities they believe are required to be an effective leader (e.g., traits, behaviours and physical attributes); and factors considered to have an impact upon leadership development (e.g., process of maturation, changes in the game, and nature vs nurture). Participants rejected age and position on the pitch as being critical leadership. Participants also recognised that leadership skills can be learnt and developed through personal experiences and learning from others, as opposed to being fixed traits.

**Conclusions:** The results suggest that coaches and applied professionals within elite youth sport should look to reinforce the belief that athlete leadership can be developed, expose players to changes in the game earlier in their development and encourage the sharing of leadership duties and responsibilities amongst team members.

Gender stereotype threat in youth hockey: Investigating the role of cognitive load

Elanor Cormack, Glasgow Caledonian University

**Objectives/Purpose/Background:** Gender stereotype threat is thought to reduce skill performance, but there has been limited exploration in youth sport. This paper investigated the effect of gender stereotype threat in youth hockey and explored cognitive load as a moderating factor.
**Design/Background/Key Points:** Randomised control trial where all participants took part in a low (straight shot at goal) and a high (left/right shot decision based on indicator) cognitive load hockey task. Prior to the tasks, participants were told one of three gender stereotype statements (similar to previous studies) that boys or girls were better at the tasks or that both genders usually performed equally.

**Methods/Conclusions:** Seventy-three players of secondary school age from hockey clubs, an after-school club, and national squad programmes participated. Hockey programmes in central Scotland were invited to participate. Successful shots and demographics were analysed using ANOVA, general linear model, and t-test to assess differences and interactions in stereotype conditions, sex, and cognitive load.

**Results/Conclusions:** A main effect of stereotype threat was not found, but females performed better on the low load task than males, $r = -0.305$, $p = 0.004$, particularly in the negative threat condition, $t(25) = 2.601$, $p = 0.015$.

**Conclusions:** The lack of significant results is itself a significant finding. Explored in the context of situational and internalisation models of stereotype threat, gender identity may play a key role in vulnerability to or protection from gender stereotypes, with particular variability in young people. Situational factors such as self-choice of activity and the study context (out with school curricular classes) may also have influenced the impact of the stereotype threat.

**Ref:** 3646 Experimental & Applied Oral Presentation
**Topic:** Sport & Exercise Psychology in the 21st Century

---

**Social media use and perceptions of sport psychology practitioners**

*Stewart Cotterill, AECC University College*

**Objectives/Purpose/Background:** In recent years there has been a significant increase in the use of social media across society. While there is an increasing awareness of the social media habits and impacts in society there is currently a limited understanding of the social media habits and practices of sports performers and sport psychology and Exercise (SEP) practitioners. This fact makes it difficult to understand the developmental needs of SEP practitioners. As a result, the aim of this study was to explore the social media habits and experiences of SEP practitioners.

**Design/Background/Key Points:** Due to the exploratory nature of the study an inductive thematic approach was adopted with data collected online.

**Methods/Conclusions:** Participants were 44 trainee/qualified SEP practitioners recruited via online social media posts. Participants completed an online survey, and the social media posts of volunteering individuals were further analysed using inductive thematic analysis to understand what participants used their professional Twitter accounts for. Ethical approval was granted from the Institution of the first author.
Results/Conclusions: Twitter, Facebook, LinkedIn, Whatsapp and Instagram were the most used social media platforms by participants, with 38% of participants reporting using social media to communicate with clients. Five first order themes emerged from the social media post data including: promoting events, commenting on sporting events, sport psychology advice, promoting own content, and retweets.

Conclusions: There was a strong view among participants that there is currently insufficient training available within the field to maximise the benefits of social media to the SEP practitioners and to their clients.

Ref: Keynote

Mental health promotion: Learning from interventions in primary care
Professor Diane Crone, Cardiff Metropolitan University

Primary care referral programmes, now commonly referred to as social prescribing, have been in existence since the early 1990s. Initially, in the guise of exercise on prescription, these programmes were designed to target public health concerns such as coronary heart disease, hypertension, etc. However, as knowledge of their potential role for comprehensive health benefits has become more convincing, their use in targeting other health concerns, such as mental health, has given rise to an increasing range of interventions available. These programmes have now moved beyond physical activity to include more social programmes of purposeful activities such as creative arts. This presentation will consider a portfolio of evidence underpinning these programmes in the context of mental health promotion. Moving beyond the evidence base, it will draw together related conceptual and theoretical knowledge to discuss those factors that may facilitate mental health outcomes for the range of population groups that are referred to interventions which promote purposeful activity; be it physical activity or creative art. Reflecting on where these programmes have come from, for whom they may, or may not, be successful, and for what reasons; presents a different perspective on such schemes that can inform the future use of primary care referral schemes for mental health promotion in primary care and public health.

Ref: 3563 Experimental & Applied Oral Presentation
Topic: Mental Health and Wellbeing

How the bright and dark side of self-determination theory influence participants’ life skills development in youth sport
Lorcan Cronin¹, Paul Ellison¹, Justine Allen², Emma Huntley¹, Laura Houghton¹, Maria-Christina Kosteli¹, Anna Hollis¹, David Marchant¹
¹Edge Hill University, ²University of Stirling

Objectives: This study investigated whether basic needs satisfaction versus frustration mediated the relationships between autonomy-supportive versus controlling coaching and participants’ life skills development in youth sport.
Design: This descriptive study used a cross-sectional research design. To ensure a diverse sample, participants were recruited from a wide range of sports.

Methods: British and Irish youth sport participants (N = 309) completed measures of autonomy-supportive and controlling coaching, basic need satisfaction versus frustration (autonomy, competence, and relatedness), and life skills development in sport (teamwork, goal setting, social skills, problem solving, emotional skills, leadership, time management, and communication skills).

Results: Correlational analyses showed that coach autonomy support was positively related to participants’ basic need satisfaction and life skills development. Controlling coaching was only positively associated with participants’ basic need frustration. Mediational analyses revealed that satisfaction of the three needs combined mediated the relationships between coach autonomy support and participants’ development of all eight life skills. Relatedness satisfaction mediated the relationships between coach autonomy support and participants’ development of all life skills except for goal setting. Autonomy satisfaction only mediated the relationships between coach autonomy support and time management; whereas, competence satisfaction mediated the relationships between coach autonomy support and participants’ goal setting and emotional skills.

Conclusions: Findings indicated that basic need satisfaction is a mechanism that helps explain the relationships between coach autonomy support and sport participants’ life skills development. As such, coaches should create an autonomy-supportive climate that satisfies participants’ three basic needs and may help to develop their life skills.

Ref: 3585 Workshop
Topic: Sport & Exercise Psychology in the 21st Century

Applied regional hubs – Shaping the future
Helen Davis¹, Andrew Wood², Zoe Taylor³, Luke Barnes⁴
¹Think Believe Perform, ²Staffordshire University, ³Taylored Mindset, ⁴Leeds Beckett University

Objectives/Purpose/Background: Applied regional hub sites offer aspiring and established practitioners an opportunity to communicate, network, and share experiences with others in their local area. Currently, four hub sites exist across England (i.e., north, south, east and west-midlands), which are voluntarily run by Stage 2 and qualified practitioners with the aim of engaging in and providing continued professional development opportunities.

Design/Background/Key Points: Each hub site is faced with unique opportunities (e.g., professional development) and constraints (e.g., geographical location). If hub sites are to continue to serve the increasing numbers of training/practicing sport and exercise psychologists, a collective and concerted strategy is warranted.

The purpose of this workshop is to: (a) briefly describe the current status and key events provided by each applied hub; and (b), engage the audience in wider conversations that shape applied hubs.
Methods/Conclusions: The current hub leads will summarise the current status of regional hubs provision and challenges, to give members clarity on the history and activity of hubs thus far. Next, the hub leads will facilitate discussions through group activities with the purpose of seeking new directions, ideas and contributions from the audience.

Results/Conclusions: Based on the collaborative aims of the hub sites, discussions will revolve around a range of pertinent themes emanating from existing hub leads (e.g., what members would value, the use of technology to solve pragmatic challenges, effective organisation and sustainability of the hubs).

Conclusions: Ultimately, the workshop will increase the awareness and participation of the regional hubs, whilst allowing DSEP members to shape their future direction.

Ref: 3625 Symposia
Topic: Sport & Exercise Psychology in the 21st Century

(S) Person or performer: Who comes first?

Elaine Duncan, Glasgow Caledonian University

Currently, Glasgow Caledonian University is the only Scottish University to offer a taught doctorate programme in Sport and Exercise Psychology. A unique feature of this three-year programme is its underpinning humanistic person-centred philosophy, supported by in-depth study of cognitive-behavioural therapies. Such is aimed at facilitating the development of therapeutic skills required to sustain effective relationships with clients. In this symposium students from year one and two present their experiences of integrating person-centred and/or cognitive-behavioural approaches within a sport and exercise context. The symposium begins with a critical review of the applicability of person-centred approaches within sport and exercise psychology with the second presentation arguing that practice informed by person-centred principles is flexible enough to respond to the idiographic needs of clients. The third presentation proposes that coaches can also be construed as ‘performers’ and may gain from engaging in a consulting process that is underpinned by a humanistic philosophy. The focus of the fourth presentation is professional self-care which explores the impact of dual role conflict and how a person-centred approach to consulting facilitated self-reflection and self-care. Finally, the fifth presentation explores how interpreting dilemmas in practice through the lens of a cognitive-behavioural framework facilitated the client-practitioner relationship. Through its own foci, each presentation explores a central debate in sport and exercise psychology applied practice; who comes first, the person or the performer?
Paper 1: A person-centred approach – pointless, presumed or perfect within sport and exercise?
Elaine Duncan, Zoe Moffat
Glasgow Caledonian University

Purpose: The purpose of this paper is to provide a review of the applicability of person-centred approaches within sport and exercise psychology.

Background: Adopting a theoretical perspective to practice is considered essential for ethical and effective consultancy. Despite this, little literature is available pertaining to how such theoretical perspectives can integrate and feature within applied contexts. This is particularly evident with modalities underpinned by a humanistic, holistic philosophy. Professional doctorate students at a British university are required to utilise person-centred approaches to practice during their first year on the programme. As part of this process, the author was required to consider the professional feasibility of adopting the approach, in light of obstacles faced when working within varying sport and exercise contexts.

Methods: Literature regarding salient features of applied practice is drawn upon; in tandem with theoretical literature from sport and exercise and wider domains (e.g. counselling). Literature is supplemented by the critical reflection, considerations and perspectives of the author.

Conclusions: This paper seeks to provide a novel insight into the utility of person-centred approaches within sport and exercise contexts. In doing so, practitioners may consider potential benefits/costs of the approach as a theoretical underpinning for applied practice. Alongside this, consideration regarding the efficacy of conventional sport psychology programmes (e.g. psychological skills training) and utilising singular elements of person-centred theory (e.g. empathy) is invited.

Paper 2: ‘The ball’s in their court’. Implementing a person-centred approach within the context of professional basketball.
Elaine Duncan, Zoe Black
Glasgow Caledonian University

Purpose: A trainee Sport and Exercise Psychologist will share reflections from practice underpinned by the person-centred approach. Reflections from work with two clients will show how the trainee accommodated the idiographic nature of client preferences and experiential processes.
**Background:** Collaboration with a Team Manager from a basketball squad enabled the trainee to offer individual team members a one-to-one session with further follow-up sessions being optional. Two members of the team chose to voluntarily engage in at least five of these additional sessions.

**Methods:** A reflective approach was adopted to review the ways of working with each client and the appraisal of adopting a holistic approach to work in this setting. This was supplemented by learning logs and supervision as part of coursework components on a taught doctorate in Sport and Exercise Psychology.

**Conclusions:** Trainee reflections will focus on several aspects of this applied practice. Firstly, the experience of working in a non-directive manner, offering unconditional positive regard and empathy, secondly an overview of client change processes, and finally insights as to how this manner of working shaped future applied practice. In addition, it will be argued that working in a non-directive and relational manner enabled these clients to take responsibility for shaping sessions in order to meet their unique realities, needs and preferences.

Ref: 3630 Part of Symposia  
Topic: Sport & Exercise Psychology in the 21st Century

**Paper 3: Coaches are Performers Too**  
*Elaine Duncan, Elanor Cormack*  
*Glasgow Caledonian University*

**Purpose:** To present reflections on working with coaches as ‘performers’.

**Background:** Psychological support is often targeted either at athletes in performance programmes directly or at coaches to indirectly improve athlete outcomes. It rarely focusses on the coach as an individual. This presentation presents reflections on work with coaches in a national youth programme that focussed on coaches as ‘performers’.

**Methods:** A doctorate placement gave the opportunity to use person-centred principles in applied practice and resulted in an alternative approach within a national performance programme. The starting point was support to the squad of athletes, progressing to individual sessions with the coaches that explored their experiences within, and as a result of, the programme.

**Conclusions:** The person-centred approach created space for coaches to explore their experiences, rather than focussing on the squad’s needs. It was an unexpected approach for the coaches; instead of direct feedback on their coaching, it increased their self-awareness and provided reflective space for them to find their own route forward. This ultimately improved their coaching experience and their relationships with the athletes. The placement demonstrated the benefits of working with coaches construed as individual ‘performers’ and also the potential of doing so in a person-centred way. It highlighted that this approach may not be suitable for all coaches but can be combined with more directive practices to fit the individual involved. The practitioner was able to find a comfortable and
flexible balance with her practicing philosophy and the needs and expectations of the coaches as clients.

Ref: 3631 Part of Symposia  
Topic: Sport & Exercise Psychology in the 21st Century

Paper 4: Professional self-care: What happens when you are the last domino?  
*Elaine Duncan, Leigh McGeachy-Martin*  
*Glasgow Caledonian University*

**Purpose:** Delivering sport and exercise psychology services can be viewed as a performance, creating two distinct roles; psychologist-as-performer and psychologist-as-person. With reference to extant literature on the benefits of self-care this presentation will argue for the provision of more education in self-care as a way to protect practitioner functioning and wellbeing as they balance this dual role.

**Background:** There is a dearth of research in self-care within applied sport and exercise settings. The author documents experiences of self-care in year one of a professional taught doctorate in sport and exercise psychology. Being pregnant while striving to excel in the course, placement and personal life, meant battling to maintain a work-life balance, resulting in negative physical and psychological consequences to overcome. Adopting a person-centred approach to consulting and participating in triad counselling sessions, facilitated self-reflection and ultimately self-care.

**Methods:** A reflective approach was adopted drawing on self-reflections, learning logs and supervision, in line with the therapeutic philosophy adopted in year one of the doctoral programme.

**Conclusion:** The author’s reflections review the impact that a lack of self-care could have on professional practice and practitioner in training wellbeing. It is hoped that sharing such experiences prompts others to reflect on their own levels and strategies for self-care. It is hypothesized that a sport and exercise psychology that is fit for the 21st century embeds self-care as an explicit component in both trainee and continuing professional development.

Ref: 3632 Part of Symposia  
Topic: Sport & Exercise Psychology in the 21st Century

Paper 5: When your clients’ cognitive distortions mirror those of your own: A reflexive narrative  
*Elaine Duncan, Gillian Strathearn*  
*Glasgow Caledonian University*

**Purpose:** Many researchers have called for more emotional representations of applied practitioners experiences to better equip neophyte sport and exercise psychologists for the cognitive and emotional demands of the role. However, novice psychologists can be reluctant to disclose their personal struggles due to the perceived adverse effect this could have on their future career. Nevertheless, the purpose of this case study is to provide a true
representation of the struggles faced by the author when working with an athlete whose experiences resonated with her own.

**Background:** The case study documents cognitive-behavioural therapeutic (CBT) work conducted with a National level triathlete. While the similarities in experiences allowed the author to develop a deeper empathic connection with the athlete, she had an ongoing internal conflict over whether to self-disclose these similarities, resulting in feelings of incongruence as a trainee sport and exercise practitioner.

**Methods:** A reflexive approach was adopted to highlight perpetuating factors inclusive of avoidance behaviours and cognitive distortions displayed by both the author and the athlete. A description of the ongoing conflict the author experienced will be provided within a CBT framework based on the therapeutic philosophy adopted during Stage 2 of a taught doctorate programme in part fulfilment of the qualification to become a Sport and Exercise Psychologist.

**Conclusion:** It is hoped that the authors admissions of weakness and how she managed these inner struggles as a trainee practitioner, equip novice sport and exercise psychologists with examples of the challenges they could be faced with in real-world therapeutic contexts.

Ref: 3998 Experimental & Applied Poster Presentation

**Topic:** Other – Any applied practice or research that does not fit within the other themes

**Raising the bar: The lived experience of late-adulthood powerlifters**

*Elaine Duncan, Nina Lepaus*

*Glasgow Caledonian University*

**Objectives/Purpose/Background:** Extant literature suggest that various forms of strength training (ST) is functionally beneficial for older adults. However, there is a lack of consensus as to which types of ST confer which benefits, there is less focus on psychosocial benefits and some forms of ST are not represented. For example, despite increasing uptake there are no published studies examining psychosocial aspects of powerlifting. This study addressed this gap and investigated the lived experience of older adult powerlifters.

**Design/Background/Key Points:** Qualitative design adopting Interpretative Phenomenological Analysis.

**Methods/Conclusions:** Three powerlifters over the age of 60 were recruited through powerlifting federations. Semi-structured interviews were conducted, transcribed and analysed.

**Results/Conclusions:** Common themes grouped around the perceived benefits of powerlifting (social integration, mental health, physical functioning, defying stereotype). Participants felt empowered by having a distinct identity which they felt separated them from their peers and normative views of aging as a time of decline. Idiosyncratic features were also identified, such as gaining new structure to life, the desire to be strong, and
Conclusions: These findings add meaningful insight into powerlifting in older adulthood and expand upon extant literature on the benefits of strength-based exercise and training. Powerlifting could confer positive psychosocial as well as physical benefits. Future studies should focus on evaluating this form of strength training to identify optimum conditions and/or contraindications. The views of these participants remind practitioners that perceptions of aging can be suffused with potentiality, rather than atrophy.

Ref: 3674 Experimental & Applied Oral Presentation
Topic: Performance Psychology

‘Things have changed, and I don’t know the factors for those changes’: Macro-cultural change in British Olympic Sports
Niels Feddersen, Robert Morris, Frank E. Abrahamsen, Martin Littlewood, David J. Richardson

Objective: This study examined the influence of macro-cultural changes in a change of culture process in a British national governing body (NGB) of an Olympic sport.

Design: We conducted this study using a combined grounded theory and action research methodology over 16 months and collected data from eighteen interviews with participants from governing sports organisations (n=6; GSOs) and NGBs (n=3). Moreover, we supplemented this with data from one NGB using ethnography; ten focus-groups with athletes, coaches, parents, and NGB personnel; and eight interviews with stakeholders. Data were analysed using a grounded theory approach.

Results: Results emphasised that political support and trust had isolated Olympic sports from the influence of societal changes. This gave GSOs and NGBs significant autonomy, which they utilised to dictate appropriate avenues for pursuing results. They did so through an evolving system of interorganisational dependency; however, loose coupling between organisations and antagonism from stakeholders buffered their influence and led to conflict. NGBs experienced this dependency as an insecure funding relationship partly linked to offers they were compelled to accept. Changing social norms and the increasing power of athletes meant that athletes used their reinforced position to expose issues concerning welfare and less socially desirable behaviours. This public exposure served as an unanticipated source of change, which shaped radical changes and highlighted that the organisational culture was increasingly deficient.

Conclusions: These findings indicate that sports organisations are vulnerable to fragile relationships and unanticipated sources of change. Also, competing interests could make change extremely difficult and lead to conflict.
Ref: 3681 Workshop
Topic: Sport & Exercise Psychology in the 21st Century

Reviewing organisational culture in elite sports through the lens of functional stupidity
Niels Feddersen, Robert Morris, Martin Littlewood, David J. Richardson
Liverpool John Moores University

Background: Most research builds on an assumption of ‘smartness’; that organisations are inherently based on knowledge, information, and competence (Alvesson and Spicer, 2012). However, to understand why individuals sometimes accept and reproduce adverse or destructive cultures in elite sports, this workshop addresses an under-recognised part of organisational life, namely the concept of functional stupidity. Paulsen (2017) explains that this concept refers to a lack of reflexivity, substantive reasoning, and justification in other than myopic ways. Besides, Alvesson and Einola (2018) suggest that it is prevalent cultures where high-performance is all that counts.

Key points: The purpose of this workshop is that we will consider the normalisation of cultures that might deny, ignore or allow unacceptable behaviours to happen through the lens of functional stupidity. In British sports, several accounts of unacceptable behaviour emerged (cf. Grey-Thompson, 2017) and we will explore rationales such as ‘trying to be the best’, ‘winning at all costs’, or it being ‘banter’, which might buffer addressing concerns over welfare because people felt they had to ‘get on with it’ (Alvesson and Spicer, 2012).

Conclusions: This workshop is designed to support participants to develop competencies in recognising when organisations might get trapped in problematic patterns of thinking. Participants will engage in collaborative problem-solving tasks to develop alternatives to unwanted conditions. On the conclusion of this workshop, it is expected that participants will have a more in-depth understanding of how scientific inquiry using collaborative approaches can influence real-world practice.

Ref: 3545 Case Study
Topic: Other – Any applied practice or research that does not fit within the other themes

‘The Best or the Rest’: A case study of a Rugby Union coaching team’s team selection decisions
Matthew Fiander\(^1\), Juliette Stebbings\(^2\), Mark Coulson\(^3\)
\(^1\)Oxford Brookes University, \(^2\)University of Portsmouth, \(^3\)Middlesex University

Purpose: The primary aims of this study were to (a) examine which (and how many) cues rugby union coaches, working within the same coaching team, used to make team selection decisions, (b) discover the processes coaches went through when making team selection decisions, and (c) investigate if the relationships among the coaching team impacted team selection decisions.
Background: A key decision that coaches must regularly make is the selection of individuals to a team, which has both positive (e.g., improved psychosocial functioning) and negative (e.g., loss of identity) consequences for players. Despite this, little is known about why or how coaches make team selection decisions.

Methods: This study adopted an exploratory case study approach with a single-case, embedded (i.e., multiple units of analysis) design. An exploratory case study is appropriate when “how” or “why” questions, with no propositions, are being asked about a real-life, contemporary bounded system where the researcher has little or no control over relevant participant behaviours. Data were collected through observations of the head coach in training across one season and semi-structured interviews with five coaches post-season.

Conclusions: Coaches mostly relied on player cues when making selection decisions (but also coach cues, cues from other sources, and situational cues) and employed a “the best or the rest” selection strategy for important and unimportant games, respectively. Dominating behaviours from one coach was also found to influence team selection decisions. Coaches are given an opportunity to read about, and reflect on, a topic that is often treated as secret.

Ref: 3610 Experimental & Applied Oral Presentation

Topic: Performance Psychology

Heart rate variability training and emotional control: Investigation of acute and long-lasting effects
Charalampos Fountoulakis1, Marc Jones2, Zoran Nikolovski3
1ASPIRE Academy, 2Manchester Metropolitan University, 3ASPIRE academy

Objectives/Purpose/Background: The purpose of this research study was to investigate the acute and long-lasting effects of heart rate variability training (HRVT) on the stress levels of Middle-Eastern adolescent student-athletes of a sports academy.

Design/Background/Key Points: Fifty-seven participants were randomly assigned to an experimental (n = 30) and a control (n = 27) group which both went through a biofeedback-based stress profile as well as biochemical investigation before and after the intervention period.

Methods/Conclusions: The experimental group completed a 5-week HRVT protocol which consisted of five weekly lab-based and five weekly home-based 20-minute HRVT sessions, whereas the control group went through five weekly educational sessions.

Results/Conclusions: There were acute effects of HRVT on a-amylase levels within each session (F (1.85, 53.76) = 64.98, p < .0001, ηp2 =.691) with a-amylase levels decreasing over the course of the session. Both cortisol and a-amylase levels reduced over the course of the 5-week HRVT protocol. The data collected after the training by means of the stress profile and salivary samples showed significantly lower cortisol levels (F (1, 49) = 7.57, p = .008, ηp2 =.13), and skin conductance levels (F (1, 53) = 9.35, p = .003, ηp2 =.15) in the experimental compared to the control group.
**Conclusions:** These findings suggest that HRVT may be an effective way of reducing psychological stress in Middle-Eastern adolescent student-athletes. To increase effectiveness, HRVT should be practiced regularly and included as part of a pre-competition routine.

Ref: 3658 Experimental & Applied Oral Presentation  
Topic: Exercise and Physical Activity

The qualities and content of helpful and unhelpful encouragement at mass-participation running events  
*Sophie Gibbs-Nicholls, Dr Alister McCormick, Melissa Coyle*  
Plymouth Marjon

**Objectives:** Thousands of runners participate in mass-participation running events and receive encouragement from the crowd, as well as ‘Psyching Teams’ who translate psychology research evidence into simple interventions. There is little guidance on how crowds and Psyching Teams can maximise the impact of their support. The reported study aimed to understand the qualities and content of helpful and unhelpful encouragement given by the crowd at two mass-participation running events, as well as by our Psyching Team.

**Design:** A qualitative survey and interviews, in the context of a mass-participation 10k or half-marathon.

**Methods:** Six hundred and twenty-seven runners completed surveys about helpful and unhelpful encouragement. The experiences of 10 runners were then explored using one-to-one interviews.

**Results:** Within the survey, the most commonly-cited types of helpful support were encouragement relating to effort (e.g. ‘you’ve got this’) and personal encouragement (e.g. the use of names). Encouragement perceived to be unhelpful included distance (e.g. ‘Nearly there’) and negative comments relating to effort (e.g. ‘stop slacking’). Interview data highlighted that the crowd and Psyching Team supported a greater sense of pride in participation and an improved emotional state. Support that was personalised, enthusiastic and perceived as genuine was particularly well received.

**Conclusions:** Most well-meaning encouragement is welcomed by runners, although distance-related encouragement is somewhat risky. Genuine, personalised encouragement that involves a personal connection makes a difference that goes beyond the exact spoken words. Enthusiasm is a key quality needed by Psyching Team members.
**Ref: 3637 Review/ Theoretical & Practice Oral Presentation**  
**Topic: Mental Health and Wellbeing**

**Measuring wellbeing in sport performers: Where are we now and how do we progress?**  
*Sam Giles, David Fletcher*  
*Loughborough University*

**Purpose:** The purpose of this article is to review psychometric issues in wellbeing research and discuss the implications for the measurement on wellbeing in sport psychology research.

**Background:** The importance of optimal wellbeing and mental health in the athlete population has recently attracted a great deal of attention from both research and applied perspectives. Notably, there exists an increasing emphasis on the development of appropriate sport-specific measures of athlete wellbeing, which are required to underpin strategies targeted at the protection and enhancement of psychosocial functioning. The wealth of psychometric research that exists on general human health, happiness, and flourishing offers scholars the opportunity to review the lessons that have emerged from previous psychometric developments, and apply these insights to inform the construction of a measure in sport.

**Methods:** The central tenet of the narrative review presents a conceptual scope for the measurement of wellbeing in sport. Specifically, we review what we currently know about this topic in sport psychology and contemplate how psychometric advancements in psychology more broadly can inform progress in sport. The structure of the narrative presents a focussed commentary on four psychometric areas: Conceptual and theoretical issues, item design and development issues, measurement and scoring issues, and analytical and statistical issues.

**Conclusions:** To conclude, a summary of the main implications and recommendations are presented which sport scholars should consider in the design of a psychometric tool to assess wellbeing in sport performers.

**Ref: 3690 Experimental & Applied Poster Presentation**  
**Topic: Performance Psychology**

**Gender as a moderator of the association between the coach-athlete relationship and athlete satisfaction**  
*Jyoti Gosai, Sophia Jowett, Daniel Rhind*  
*Loughborough University*

**Objectives:** This study aims to explore associations between coach-athlete relationships (CAR) and athlete satisfaction of male and female athletes’ coached by male head coaches. In addition, the study aims to examine the mediating role of communication.
**Design:** A cross-sectional analytical design is being used where athletes completed a multi-section questionnaire assessing quality of their relationships with their coach (CART-Q), communication strategies employed to maintain good quality relationships (CARM-Q), and different facets of satisfaction (ASQ).

**Methods:** A sample of (male and female) athletes are being currently recruited from exclusively team-based sports. Data obtained from questionnaires administered to athletes are being analysed using Barron and Kenny’s mediational procedures and analyses.

**Results:** (Data analysis is ongoing). Based on previous studies, it is expected that female athletes will experience higher levels of relationship quality: closeness, commitment and complementarity, and in turn higher levels of satisfaction than their male counterparts. Additionally, different communication strategies between males and females athletes may better explain the association of relationship quality and satisfaction.

**Conclusions:** Findings may contribute towards enhanced understanding of links between CAR, athlete satisfaction and the role of communication. If females are found to be more satisfied as a result of the higher quality relationships they develop with their coaches, then coaches’ practices may be questioned related to how coaches connect with their male athletes. Moreover, if different strategies are found to be employed by males and females athletes to develop and maintain good quality relationship with their coaches, then this could provide helpful information for coaches.

**Ref:** 3660 Experimental & Applied Oral Presentation
**Topic:** Mental Health and Wellbeing

---

**Generation gains: Building capacity amongst young person practitioners, delivering physical activities to older isolated people**


¹University of Bath, ²Solent University, ³Zurich Community Trust, ⁴Saints Football Foundation

**Objectives/Purpose/Background:** This papers contributes towards capacity building and knowledge translation. Objectives: 1. Work with young people, at risk of not being engaged in employment, education or training (NEET) who were practitioners in a two year paid apprenticeship. 2. For these practitioners to deliver physical activities to older socially isolated people.

**Design/Background/Key Points:** A realist informed design, comprising capacity building workshops was utilised. Funder, delivery partners and participant stakeholders engaged, mobilised by academic evaluators which embedded Schula et al's (2016) collaborative approaches to evaluation framework.

**Methods/Conclusions:** Participants were apprentice practitioners and older people. Collaboratively, capacity building workshops, interviews and a focus group were undertaken with the apprentices. For the older participant cohort, reliable, valid outcome measures
were administered over time. These focused on mental wellbeing (Warwick Edinburgh Scale), social isolation (Social Isolation Index) and loneliness (UCLA Loneliness Scale). Zurich Community Trust funded three sites in the Generation Gains Programme. One of the sites, a football club foundation participated.

**Results/Conclusions:** Emerging data demonstrates statistically significant advancement in professional capacity amongst the apprentices, reduction in NEET risk, and transformational psychosocial outcomes, including increased mental wellbeing and resilience. For older participants, statistically significant reductions in social isolation, loneliness and an increase in mental wellbeing were realised. Qualitative data from workshops, interviews and the focus group supported these themes.

**Conclusions:** Capacity building around evaluations is an effective approach with young people who engage in apprenticeships, to empower them to realise their professional development goals. A generation divide was bridged and positive psychosocial outcomes occurred amongst young people and older isolated people.

**Ref:** 4006 Review/Theoretical & Practice Poster Presentation
**Topic:** Mental Health and Wellbeing

**A mental wellbeing screening process in an elite football academy**

Séamus Harvey¹, Chin Wei Ong², Nichola Callow¹, James Hardy¹, Cherrie Daley¹, Cassie Wood¹, Luke Dennison³, Philippa McGregor³, Lorraine O'Malley³, Jennie Killilea³

¹Bangor University, ²Bangor University/City Football Services, ³City Football Services

**Purpose:** We sought to develop a mental wellbeing screening process in Manchester City Football Club Academy, to detect male and female players at risk and implement a support system.

**Background:** Previous mental wellbeing research within football academies was scant. However, research demonstrated that elite adolescent athletes in general were vulnerable to poor wellbeing. Antecedents included pressure and injury. Symptoms included depression and anxiety.

**Methods:** Phase One: We reviewed the mental wellbeing and wellbeing screening literatures to understand how wellbeing was conceptualised and assessed, in order to identify a brief, valid, and adolescent-friendly screening tool. We deemed Keyes’ 14-item Mental Health Continuum–Short Version questionnaire suitable due to its relevance and psychometric properties. It assessed eudaimonic (the actualisation of human potential) and hedonic wellbeing (happiness), two perspectives dominant in this area and reflective of mental wellbeing’s traditional conceptualisation. Phase Two: We adapted this questionnaire for use with players. Based on our academy-related experience, we removed irrelevant items, and edited the remaining items to further enhance relevance and readability. Phase Three: We conducted screening with players every twelve weeks during the season. Players, guided by academy psychologists, completed the questionnaire and discussed their responses. We identified players at risk if their scores exceeded a cut-off point – a point guided by previously established scoring norms.
**Conclusions:** Screening facilitated the detection and support of players at risk, an understanding of the prevalence of poor wellbeing in this population, and an appreciation of factors that affected their wellbeing. Other football academies could adopt this process.

**Ref:** Keynote

**Deploying effective duties of care in youth sport: The critical positioning of sport psychology**

*Professor Chris Harwood, Loughborough University*

In this keynote presentation, Professor Chris Harwood will propose how ‘duty of care’ in youth sport extends well beyond traditional notions of safeguarding and into the quality of the broader psychosocial development of young people. Drawing upon his career as a scientist-practitioner, he will attempt to illustrate how sport psychologists should be at the forefront of effective duties of care, and place equal emphasis on performance and positive youth development, through their work with coaches, parents, and organisations. He will reflect on over 25 years of research that has served to inform such practices and attempt to position sport psychology as the ‘go to’ discipline to address prevalent issues (e.g., burnout, dropout, de-selection, mental health concerns) within this context. Finally, he will address some of the key challenges and opportunities for researchers, students, and practitioners in positioning sport psychology at the centre of youth sport provision.

**Ref:** 4003 Review/Theoretical & Practice Poster Presentation

**Topic: Mental Health and Wellbeing**

**#Mental Health & Wellbeing Programme – Theory into practice from a community perspective**

*Tandy Jane Haughey, Gavin Breslin, Stephen Shannon, Drew Neill*

*Ulster*

**Objectives:** To explore the effectiveness of a psycho-educational programme, previously delivered within an educational setting, on mental health in a community sports sector. The aim of this project was to develop capacity within the sporting community to deliver practically applied awareness raising sessions within their own context.

**Design:** Mixed Methods Approach, delivery of programme, observation and evaluation of programme using focus groups and thematic analysis was conducted.

**Methods:** Seventeen tutors received training, representing five organisations (3; National Governing Bodies ; 2; community/voluntary sector). Tutors trained delivered the programme in their setting (n = 10 ; people impacted n = 1000), post-delivery focus groups were conducted (n = 5), transcribed and thematic analysis was conducted.

**Results:** Findings varied across each programme delivered and the impact was dependent on the need of the group receiving the programme. It was the ability of the delivery organisation to adapt the programme to meet the needs of their community group being
the consistent outcome for all. The programme had a positive impact on the sporting community as it engaged the learner. The approach taken helped to promote and support understanding of mental health and wellbeing and could be adapted dependent on the end user. Learning from the programme assisted each organisation build capacity, identify and inspire those involved to be open about their mental health and wellbeing. The way in which the programme was delivered supported the learning environment which is critical in this setting.

Conclusions: It was clear from focus groups that this was a positive learning experience for all. Positive impact was the flexibility of the programme and that it could be utilised in a number of settings. Ability to contextualise the learning for participants in the sports sector is important which can assist in influencing policy and practice.

Ref: 3598 Experimental & Applied Oral Presentation
Topic: Exercise and Physical Activity

The effect of goal type on affect, enjoyment, and physical activity in active and inactive adults
Rebecca Hawkins¹, Dr. Lee Crust¹, Dr. Patricia Jackman¹, Dr. Christian Swann²
¹University of Lincoln, ²Southern Cross University

Objectives: Evidence suggests that different goal types produce different types of experience in physical activity. Understanding the types of interventions most effective in enhancing the experience of exercise and eliciting affective responses for physical activity promotion is of paramount importance. The purpose of this study was to investigate the effect of specific, open, and do-your-best goals on cognitive and affective responses in a walking task in active and inactive adults.

Design: The study employed a 4 x 4 x 2 mixed design, combining repeated measures (condition/attempts) and between-group (active/inactive) variables.

Methods: Participants (n = 36) completed three attempts of the 6-minute Walk Test in each of four conditions: specific goal; open goal; do-your-best goal; and control (i.e., no goal). Perceived exertion, affect, arousal, and heart rate were assessed at 2-minute intervals during each attempt. Following each attempt, participants rated perceptions of: confidence; performance; and challenge. A questionnaire assessing enjoyment and four single items related to post-exercise perceptions were taken after each session.

Results: Significant differences (p < .05) were found in at least one goal condition, and in at least one attempt, for perceived exertion, affect, arousal, heart rate, perceived confidence, performance, and challenge, enjoyment and post-exercise perceptions between active and inactive participants.

Conclusions: Findings support the efficacy of open goals and suggest different cognitive and affective responses are elicited from different types of goals, and may offer potential methods for enhancing the experience of physical activity in different population groups for the purposes of physical activity promotion.
Co-creating podcasts with teams: A modern tool for applied practitioners?

Pete Jackson, Sport Psychology Trainee

**Purpose:** Disseminating information is one of the key challenges one has as an applied practitioner (Eubank, Nesti & Cruishank, 2014). This presentation will focus on the use of podcasts to increase the engagement of disseminated information by encouraging athletes to co-create the content.

**Background:** This initiative built on a wealth of emerging evidence from across education, nursing and hospitality domains (Stoten, 2007; Lee, McLoughlin & Chan, 2008; Dale & Povey, 2009; McArthur, 2009; Mears, 2009; Alpay & Gulati, 2010; Smith & McDonald, 2013), where co-creating podcasts with students and teams has been shown to increase engagement with the material.

**Methods:** Using a single case study approach, this presentation will centre around how a podcast was co-created with an Ultimate team in advance of traveling 9 hours from London to Chicago for their World Championships. The podcast was deployed to all players and the success was measured by how many players engaged with the content.

**Conclusions:** This talk will focus on how a perfect storm of a) content appropriateness, b) team cohesion, c) practitioner relationship with the team, d) technology adoption, and e) opportunity to consume, facilitated a positive outcome, as measured by the percentage of the team which listened to the entire 1 hour 15 minute podcast (n = 23, 91.3%), and anecdotal feedback picked up by the team captains and coaches. The conclusion will focus on arming practitioners with information, inspiration and tools to test out co-creating podcasts with the teams and businesses they work with.

---

The Sports Integrity Initiative: A collaborative approach to the development of psycho-educational tools with Police Scotland

Laura Kiemle-Gabbay¹, David Lavallee², Andrea Cameron²

¹LJMU, ²Abertay University

**Purpose:** The development phase of the Sports Integrity Initiative (SII) focused on providing a sport and exercise psychology evidence base and data-driven approach underpinning the production of a future product as a means to communicate the Divert/Deter branches of Serious Organised Crime (SOC) strategy to its intended audience.

**Background:** Police Scotland’s strategy to tackle SOC in sport includes the SII aimed at youth (<21yrs) athletes. The SII relates to the ‘Divert’ and ‘Deter’ elements of Police Scotland’s ‘4 D’s Strategy for SOC’; Divert, Deter, Detect and Disrupt. The strategy’s intention is to educate and empower athletes to make informed choices relating to the risk of SOC and its
products within competitive/recreational sport, enabling it to be promoted as an educational and positive experience for athletes, coaches, parents and wider support staff within the field.

Methods: Six workshops were conducted within 84 youth (13-22yrs) sport populations (across a range of individual and team sports) in Scotland. Participants engaged in a range of quantitative and qualitative activities.

Conclusions: Findings from the workshops informed key messages associated with: 1) Why people behave immorally; 2) ‘Tipping points’ for why somebody may choose to engage in match fixing/bribery and/or take performance enhancing drugs; 3) The importance of role-models as a deterrent; and 4) Suggestions for effective communication. This development phase of the SII provided the evidence-base underpinning the production of a short film that can be distributed Nationally.

Ref: Keynote

The elephant in the room: Sports psychiatry in a psychological world
Dr Allan Johnston, Sports Psychiatrist to the English Institute of Sport Mental Health Expert Panel, Consultant Performance Psychiatrist to the League Managers Association & Sports Psychiatrist with The Spire Leeds Hospital

Dr Allan Johnston, a Consultant Sports Psychiatrist with the English Institute of Sport mental health expert panel will describe his work across the world class programmes. Aspects of multidisciplinary working will be considered as Dr Johnston discusses his roles in wellbeing and performance and working alongside Sports and Clinical Psychologists in the high performance system. The EiS mental health strategy will be presented alongside quantitative and qualitative data on referral patterns and feedback from the first year of the mental health expert panel work. The presentation will discuss areas of common interest between Sports Psychology and Psychiatry including one important aspect commonly refereed to as "everyone's business" - that of suicide prevention in Sport.

Ref: 3640 Review/Theoretical & Practice Oral Presentation
Topic: Mental Health and Wellbeing

Understanding respiratory (di)stress in young elite athletes
Liv Jorunn Kolnes, UiT The Arctic University of Norway

Purpose: Adolescent athletes with a dysfunctional breathing pattern (asthma and similar diagnosis are excluded) are faced with a complexity of stressors in elite sport. A more thorough understanding of the mechanisms that may underpin the development of problematic breathing in adolescent athletes seems warranted. How respiratory conditions and psychological and physiological stress manifestations are interrelated, have to date received little update within the stress and athletic injury frame of reference and will be debated in this paper

Background: A number of respiratory symptoms associated with physical exertion (e.g., exercise-induced asthma (EIA), exercise-induced laryngeal obstruction (EILO)) are frequently
reported in adolescent athletes. Such conditions may invoke negative feelings and have negative effects on athletes’ health. In the case of EILO, in which the aetiology is unclear and which is often mistaken for asthma, there are no effective treatments. During a physiotherapeutic treatment intervention (combined with elements of cognitive behavioural therapy), a dysfunctional breathing pattern was conveyed in adolescents presenting with EILO. By changing the breathing towards a more diaphragmatic breathing, symptoms of EILO were reduced.

Methods: Conceptual and theoretical frameworks for exploring stressors encountered by adolescents athletes include the lifespan model, stress and athletic injury model, models of stress as interaction within the sport psychology research field and neuropsychological theory.

Conclusions: The theoretical exploration show that the interrelatedness of psychological and physiological stress manifestations needs to be accounted for in order to understand the nature of and in preventing disrupted breathing and other psychological and physical overloads in competitive sport.

Ref: 3608 Review/Theoretical & Practice Oral Presentation
Topic: Performance Psychology

Personality profiling of South African Rugby Union players
Ankebe Kruger, Kobus Du Plooy, Pieter Kruger
North West University, Potchefstroom, South Africa

Objective: Given the theoretical predictions that govern associations between personality and performance-related domains, such as academia and organizational settings, it is tempting to assume that similar associations will emerge between personality and sports performance. The study aimed to explore whether personality score differences exist in the five-factor model of personality between professional and semi-professional rugby union players. We hypothesized that the professional players would obtain significantly higher scores in the personality dimensions of extraversion, openness, agreeableness and conscientiousness and a significantly lower score in neuroticism.

Design: A cross-sectional self-report design with a convenience sample was used.

Method: Seventy-three male rugby players, divided into a professional (n=52) and semi-professional group (n=21) completed the NEO Five-Factor Personality Inventory (NEO-FFI) which formed part of the WebNeuro Sport online assessment.

Results: An independent t-test was conducted on extraversion, openness, agreeableness, conscientiousness and neuroticism. A significant p-value was set at p < 0.05. Findings indicated a statistically significant difference only in neuroticism (p = 0.03) between the two groups. The magnitude-based inference method confirmed the findings of the independent t-test with a moderate effect in favour of the semi-professional players.
Conclusions: The potential practical value of these findings is that the Neuroticism scale Big Five personality dimensions can be used as a screening tool for indicating which players a team would want to recruit and invest time and money in since these players will most likely be capable of progressing to the top level in their sport. Key limitations of this study were the small sample size which could account for insufficient statistical power; having used a cross-sectional self-report design, we could not control for other confounding variables which might account for the results; and as participants of only one team sport were considered, the results might have been affected by sport specificity – the notion that participation in rugby might have led to the development of individual personality characteristics.

Ref: 3609 Review/Theoretical & Practice Poster Presentation
Topic: Performance Psychology

The effect of expertise on emotional intelligence of professional and semi-professional South African rugby union players
Ankebe Kruger, Kobus Du Plooy, Pieter Kruger
North West University, Potchefstroom, South Africa

Objectives: Emotional intelligence (EI) is increasingly recognized as an essential component of success in sport. The study investigated whether differences exist in the level of emotional intelligence (EI) between professional and semi-professional South African (SA) rugby players. According to research athletes scoring higher on EI tests are more successful in their chosen sport. Based on these findings, we hypothesized that the professional players will significantly outscore the semi-professional players in the subscales of EI, as well as total EI.

Design: A cross-sectional self-report design with a convenience sample was used.

Methods: Seventy-nine male rugby players, a professional group (n = 55) and semi-professional group (n = 24), completed the Brain Resource Inventory for Emotional Intelligence Factors (BRIEF) comprising of three factors namely internal emotional capacity (IEC), external emotional capacity (EEC), self-concept and a total EI score.

Results: All three factors as well as total EI were subjected to an independent t-test which indicated no statistically significant difference in total emotional intelligence nor the associated subscales. The magnitude-based inference (MBI) method showed that the external emotional capacity (EEC) attained medium worthwhile effect in favour of the professional players.

Conclusions: It seems that players with a higher level of EEC, who are capable of maintaining better interpersonal relations, having better social skills and managing relationships more effectively are those performing at higher levels in rugby. Therefore, the EEC subscale of the BRIEF might be used as a screening tool for identifying players that teams would prefer to recruit since these players might contribute to a positive team environment and progress to the top level in their sport. Another implication of these findings is that practitioners should promote the implementation of EI,
particularly external emotional capacity development programs as an integral part of a rugby player’s training regime. Limitations were the small sample size; having used a cross-sectional self-report design, we could not control for other confounding variables; and as participants of only one team sport were considered, the results might have been affected by sport specificity – the notion that participation in rugby might have led to the development of EI.

Ref: 3692 Workshop
Topic: Other – Any applied practice or research that does not fit within the other themes

Supporting each other’s professional practice: Understanding and using peer supervision
James Lambdon¹, Ross Shand²
¹University of Bath, ²Leeds Beckett University

Background: Peer supervision is one of a number of different approaches of supervision available to Sport and Exercise Psychologists and trainee practitioners alike. Widely considered a useful and impactful undertaking, engaging in supervision with peers is typically context dependent, based upon personal need, and facilitated on a one-to-one or group level basis. At present, there is limited literature and guidance available for practitioners to inform how they should source, engage in, and maximise their use of peer supervision. The majority of literature within sport and exercise psychology focuses on the supervision of in-training practitioners.

Key Points: By leveraging delegates experiences and expectations surrounding peer supervision, this workshop aims to provide multiple practical activities aiming to further delegates experience, understanding, current, and future use of peer supervision. Through exploration of recent literature surrounding different forms of supervision and by acknowledging guidelines from relevant professional bodies, workshop facilitators will provide a background to the use of, importance of, and offer some suggested frameworks to maximise the use and impact of peer supervision.

Conclusions: The facilitators will share personal reflections of using peer supervision across multiple contexts, including both individual and group-based examples. Delegates should attend this workshop if they are looking to develop their understanding of peer supervision availability, personal preferences for peer supervision, and possible frameworks to use to inform their current and future practice. To maximise engagement delegates are encouraged to bring a personal practice examples, challenges, or questions to the session that they are comfortable to discuss with other delegates.
Exploring the lived experience of low energy availability and its impact on psychophysiological wellbeing in athletes

Rachel Langbein, Dr Patricia Jackman, Dr Daniel Martin, Prof. Jacquelyn Allen-Collinson
University of Lincoln

**Objectives:** Low energy availability (LEA) occurs when energy intake is insufficient to support optimal physiological functioning, once exercise activity has been accounted for. This research aimed to develop understanding of the lived experience of LEA by exploring factors influencing its onset, pertinent characteristics of the experience, and facilitators and barriers to overcoming LEA.

**Design:** A qualitative design consisting of in-depth, semi-structured interviews was employed to develop rich, detailed insights into the experience of LEA.

**Methods:** Using purposive sampling, 13 athletes (M age = 31.2, SD= 5.5 years; female n = 11, male n = 2) took part in semi-structured interviews, conducted face-to-face (n = 8) or via Skype (n = 5). All athletes were sub-elite (n = 11) or elite-level competitors (n = 2) in their primary sports (distance running; n= 11; rugby n = 1; and dance n = 1). Data were analysed inductively and thematically.

**Results:** Psychological stressors and societal/situational pressures were commonly reported antecedents of LEA. The lived experience was characterised by six themes: disordered eating/eating disorders; exercise behaviours; personality characteristics; psychological consequences; physiological impairments; and professional education/advice. Significant others appeared to facilitate recovery efforts, whilst cognitive dissonance was identified as a barrier to overcoming LEA.

**Conclusions:** These findings contribute to a growing body of literature concerning LEA in athletes and provide novel insights into psychological and physical experiences from the perspective of information-rich cases. The research provides avenues for future work and development of tailored educational interventions for prevention and treatment of LEA among sport participants.

An examination of the current use of pre-game speech strategies in basketball

Catherine Lutz, University of Essex

**Objectives:** Pre-game speeches are an intentional interaction between members of the team’s staff and their athletes prior to competition for the purposes of final game preparation. Limited research has focused on the individuals who typically deliver the pre-
game speech: coaches. Therefore, the aim of this study was to identify pre-game speech strategies used by basketball coaches and better understand coaches’ perceptions of the usefulness and influence the strategies have on a team’s collective efficacy and performance.

**Design:** This study employed a concept mapping approach comprising of six stages: preparing, generating, structuring, representing, interpreting, and utilising maps.

**Methods:** Initially, a convenience sample of 118 basketball coaches completed an online questionnaire in which they listed strategies they use in pre-game speeches. Responses were collated and a sub-sample of 59 coaches then sorted the strategies into groups reflecting similar themes and rated each of the strategies on how often they use them, and the impact they have on collective efficacy and performance.

**Results:** Data analysis is ongoing and full results will be presented at the conference. However, coaches provided 424 unique responses, which reflected 65 strategies. The most commonly used pre-game speech strategy was employing positive language, which was perceived to strongly influence collective efficacy and performance. The least commonly used pre-game speech strategy was creating excuses.

**Conclusions:** Coaches use a wide range of strategies within pre-game speeches, which are perceived to have different effects on teams’ collective efficacy and performance. The findings could help coaches optimise the delivery of their pre-game speeches.

**Ref:** 3634 Workshop
**Topic:** Sport & Exercise Psychology in the 21st Century

Using ‘Escape Room’ games to unlock students’ learning

*Andrew Manley¹, Gareth Jowett¹, Richard Simpson¹, Liz Cable², Debbie Smith²*

¹Leeds Beckett University, ²Leeds Trinity University

**Background:** This 90-minute workshop will showcase a game-based approach for enhancing engagement and academic performance of undergraduate students. Attendance at the workshop will offer delegates the following learning experiences and anticipated outcomes:

i) Active participation in “Escape Room”-style formative assessments that were recently delivered as part of a Level 5 Research Methods module;

ii) Engagement in facilitated discussion and debate regarding preliminary findings from a project designed to assess the efficacy of gamification as a contemporary pedagogical approach.

iii) Be able to identify where and how game-based approaches to learning and teaching could be embedded within practice.

**Key points:** Research Methods represents an essential yet highly-challenging component of many undergraduate degree programmes, including Sport & Exercise Psychology. Specifically, Research Methods is commonly perceived by learners as a threat to their educational experience, and of limited use to their future academic or career aspirations. The resulting lack of student engagement has been cited as one of the key factors that
prevents progression and facilitates student drop-out. This workshop will offer a stimulating and interactive demonstration of an innovative, evidence-informed approach to learning and teaching. Delegates will learn about examples of how such an approach could be confidently implemented into existing curricula.

**Conclusions:** Drawing on theories of “learning through play”, the workshop will provide an overview of methods by which the “gamification” of teaching, learning, and assessment in Sport & Exercise Psychology can be achieved. Emerging evidence will be presented to support a pedagogical solution which has potential in both scope and longevity.

**Ref:** 3659 Experimental & Applied Oral Presentation
**Topic:** Exercise and Physical Activity

**Jogging your memory: Exercise characteristics influence true and false recall**

David Marchant¹, Katelin Hall¹, Lorcan Cronin¹, Paul Ellison¹, Craig Thorley²

¹Edge Hill University, ²James Cook University

**Objectives:** Acute exercise can benefit cognitive function, yet research assessing its effects on memory processes is inconsistent. Two studies are presented that examine how the timing and intensity of acute moderate intensity aerobic exercise impacts delayed recall. The Deese-Roediger-McDermott (DRM) paradigm was used, which examines both true and false memory through encoding lists of semantically related words associated with a non-presented ‘critical lure’.

**Design:** Within-subjects design experiments with counterbalanced conditions.

**Methods:** Healthy and regularly physically active young adults volunteered to participate in both experiments. In experiment 1, participants completed rest, moderate and high intensity treadmill running, after which they immediately completed the DRM memory encoding task. In experiment 2, participants completed the DRM task either during (ENCDur) or after (ENCPost) completing moderate intensity cycling exercise. In both experiments participants then completed a free recall task one week later.

**Results:** In experiment 1, correct recall was significantly higher in the moderate condition compared to resting and maximal exercise. Critical lure recall was also significantly higher in the maximal condition. In experiment 2, correct recall was higher in ENCDur condition, compared to rest and ENCDur. However, errors and critical lure recall were higher in ENCDur.

**Conclusions:** Both the timing and intensity of acute exercise can influence the accuracy of delayed information recall. Critically, moderate intensity exercise appears to support enhanced accuracy in recall, without a consequential increase in false recall. Whereas high intensity exercise and exercise during encoding can have a detrimental effect on false recall rates.
Objective: To assess the impact of behaviour change training on sport science students’ knowledge, confidence and skills in behaviour change support.

Design: This was a single arm, non-randomised pre-post study.

Method: Fifteen sport science students (mean age=22.46; SD=6.14; 7 female; 46.7%) took part in a training programme consisting of seven 2-hour weekly face to face group sessions. Effectiveness was evaluated using the Kirkpatrick model of evaluation. Student satisfaction with training methods was assessed. Pre-to-post training changes in students’ knowledge and confidence in the design of behaviour change support was evaluated. Delivery of behaviour change support was assessed by an audio recorded role-play rated by an expert using the Health Care Climate Questionnaire (HCCQ), and an adapted version of the Communication Evaluation in Rehabilitation Tool (CERT). Students also completed a reflective diary.

Results: Students were satisfied with the training programme (median 3.8; interquartile range (IQR) 0.6; min-max 2.9-4.7). There were increases in students’ confidence (z=2.3; p=0.002) and knowledge (z=3.2; p=0.001) of certain behaviour change components post-training but not behaviour change techniques (z=0.80; p=0.41). Students delivered behaviour change support in a broadly needs supportive manner (HCCQ median 5.0, IQR 1.17, min-max 1.67–6.67; CERT median 4.73, IQR 1.36, min-max 2.09–6.27). Diaries showed that students found particular strategies difficult to implement (e.g., collaborative goal-setting).

Conclusion: While refinements are required to the training for behaviour change techniques, this study provides preliminary evidence of the feasibility of a training programme to develop students’ competencies and ensure they are well placed to provide behaviour change support through programmes such as exercise referral schemes.
A longitudinal examination of selected psychological characteristics of academy level Rugby Union players: Initial findings

Julieanne McAuliffe¹, Mark Campbell², David Lavallee²
¹University of Limerick, ²Abertay University

Objectives: Psychological characteristics are considered a defining factor in the success of players in an academy. Therefore, it is crucial that we understand how they develop over time as it could enhance the support provided to players. Therefore, the main objective of this study was to monitor the psychological characteristics of academy level rugby union players.

Design: A longitudinal repeated measures design, using a series of self-report measures, was adopted for this study.

Methods: Twenty male rugby union academy players between the ages of 18 and 21 (M=19.17, SD=0.985) were assessed, at the start of the season (Time 1) and mid-season (Time 2), using the following measures: Athletic Coping Skills Inventory-28, Basic Psychological Needs Satisfaction in General Scale, Sports Motivation Scale and Task and Ego Orientation in Sport Questionnaire.

Results: A Wilcoxon Signed Ranks test indicated that coachability was significantly higher in Time 2 (Mdn = 9.00) than in Time 1 (Mdn = 6.00), Z= -3.531, p<0.000. Task orientation (Time 1 Mdn = 4.29, Time 2 Mdn = 4.14, Z = -2.06, p<0.039) and relatedness (Time 1 Mdn = 5.94, Time 2 Mdn = 5.63) Z= -2.36, p<0.018 increased from Time 1 than Time 2.

Conclusions: The findings suggest that coachability can be developed in players during a season but task orientation and relatedness can decrease from start to mid-season. These are important characteristics for successfully negotiating an academy. Therefore, the results of this study could have implications for how coaches, psychologists and academy staff approach the development of these characteristics in players. Psychological characteristics assist players in negotiating an academy.

Suicide in sport – Do we need to be worried?

Thomas McCabe, Amit Mistry
RCPsycho sports and exercise specialist interest group

Background: Suicidality is one of the most feared presentation for practitioners and require unique management plans for athletes. There is a growing narrative within the mainstream media suggesting elite sportspersons are more likely to commit suicide as a result of sport related pressures. Studies into suicide rates in sporting populations are lacking and don’t necessarily equate to commentaries.
**Purpose:** To facilitate learning, open discussion and reflection of suicide in sport amongst attendees. The workshop will take the form of open discussion with trained psychiatrists and reflection of experiences, classroom style revision of theoretical basis and propose action plans for the future.

**Objectives:** Analyse the key publications on suicide in sport. E.g. GL Iverson - BJSM, 2014, D Webner - Brain injury, 2016, AL Rao - AOSSM 2015. Share experience of others involvement in assessment. Describe the accepted theories behind suicidal behaviour and intent E.g. Interpersonal-Psychological Theory, Escape Theory, Durkheim’s Theory. To gain awareness of how to risk assess in a sporting environment and how to create referral pathways. To understand why these presentations impact so significantly on professionals – why do we fear the presentation?

**Conclusions:** The proposal aims to assist professionals with exploring an aspect of care that many fear and do not regularly get an opportunity to learn from and discuss in an open forum. This workshop educates on theory and practice on an often ‘taboo’ subject matter in a sporting context.

**Ref:** 3648 Review/Theoretical & Practice Oral Presentation  
**Topic:** Mental Health and Wellbeing  
**'A lifestyle rather than a job': a review and recommendations on mental health support for British horse racing trainers.**  
*Will McConn¹, Will McConn-Palfreyman¹, Martin Littlewood², Mark Nesti²*  
¹sportscotland Institute of Sport  ²Liverpool John Moores University

**Purpose:** The paper examines how the working practices of racehorse trainers impinges on their respective mental health. Specifically, it examines how daily routine, ongoing, forms of work potentially facilitates both ‘poor’ and ‘good’ health for those involved.

**Background:** This Liverpool John Moores University (LJMU) research was part of a wider 14 month funded study commissioned by Racing Welfare to examine mental health across the racing industry. Overall, the focus on trainers was one part of this study which also looked at jockeys, training yard staff, and the stud sector as well as other administrative occupations in racing.

**Methods:** The paper is based on a multiple methods approach through interviews with 30 British racehorse trainers coupled with demographic statistics from 74 self completion questionnaires. Themes around mental health were identified through thematic analysis and supported with data that emerged from the questionnaire.

**Conclusions:** The research delineates three themes that influence mental health. Initially, the blurred boundaries trainers have both personally and professionally can ensure the balance between work and life is, at times, erratic, Second, the high business precarity
involved in training horses can place various forms of work related ‘strain’ on those involved. Finally, unlike many other sports, the needs and welfare of the horse can take an emotional toll on trainers as they look to ensure a duty of care to such animals alongside meeting performative demands. Furthermore, the paper finishes by highlighting some recommendations on how trainer mental health can be supported within the industry.

Ref: 3571 Experimental & Applied Oral Presentation
Topic: Performance Psychology

An initial investigation into the antecedents and consequences of psychological safety in sport
Desmond McEwan¹, Katrien Fransen², Mustafa Sarkar³
¹University of Bath, ²Katholieke Universiteit Leuven, ³Nottingham Trent University

Objectives/Purpose/Background: Psychological safety is described as the extent to which members of a team feel safe for interpersonal risk-taking (e.g., asking for help, seeking feedback, voicing opinions). Although research in organizational settings has shown that this construct is related to a range of team and individual variables, corresponding work has not yet been conducted within sport contexts. As such, the purpose of this study was to examine the relationships of psychological safety with various antecedents and outcomes within a competitive team sport context.

Design/Background/Key Points: Cross-sectional survey study.

Methods/Conclusions: Stratified sample of 325 handball players (62% female; mean age = 23.9 years) from 30 teams from Belgium and the Netherlands.

Results/Conclusions: Structural equation modelling showed that perceived leadership quality of team coaches, captains, and informal leaders acted as antecedents to social identity. Two subsequent pathways were found—one focused on individual health and one on team performance. In the health-related pathway, social identity led to psychological safety, which then predicted athlete voice, burnout, and quality of life. In the team performance pathway, social identity led to effective teamwork and, in turn, team resilience, and satisfaction with team performance.

Conclusions: The present study provides initial evidence of the importance of psychological safety for the health and wellbeing of the team members. In addition, our study findings also suggest that team leaders can foster psychological safety by nurturing athletes’ identification with their team. Future research should adopt experimental or intervention designs to corroborate the causality of the established relationships.
International youth coaches perception of the transition through underage international squads.

David McHugh¹, Dr. Robert Morris², Dr. Martin Eubank²
¹Athlone Institute of Technology, ²Liverpool John Moores University

Objectives/Purpose/Background: Although the objective of talent development environments is to aid progression senior sport, approximately only 17% of youth athletes progress to senior elite sport (Vanden Auweele et al, 2004). The skills acquired during preceding transitions can aid the athlete in acquiring the knowledge of what works for them before the transition to senior sport (Morris, Tod & Oliver, 2016). This study aimed to identify the challenges experienced and coping mechanisms utilized to successfully transition through underage international soccer squads.

Design/Background/Key Points: Semi-structure interviews were carried out with underage international coaches (Five male, M age=45.2, SD=2.7, range=43-50) based on transition models (Stambulova, 2003; Wylleman & Lavallee, 2004) and the youth to youth-senior transition literature (Morris, Tod & Oliver, 2016). Abductive thematic analysis was used to highlight commonalities and differences between the interviews.

Methods/Conclusions: Athletes experience challenges with being part of the national team environment and will experience challenges specific to the age grade they are within. Along the development pathway there are critical moments which can determine whether the athlete will progress to the next age grade. However, there are ways in which the athlete and key stakeholders can ease transitions.

Results/Conclusions: The results support previous research identifying that athletes go through a period of adaption when they move to senior sport (Morris, Tod & Oliver, 2016).

Conclusions: These findings extend previous research by identifying that a period of adaption also occurs when the athlete progresses to a higher level of competition within and between age grades.

A mixed-method examination of cumulative lifetime stress in elite athletes

Ella McLoughlin¹, David Fletcher¹, Rachel Arnold², Lee Moore², George Slavich³, Grant Shields⁴
¹Loughborough University, ²University of Bath, ³University of California, Los Angeles, ⁴University of California, Davis

Objectives/Purpose/Background: Numerous theories have proposed that stressors occurring over the lifespan may exert a cumulative effect on an individual’s physical and mental health, by causing biological “wear and tear”. Despite this, the empirical literature
on lifetime stress is sparse. As such, the purpose of the study was to explore the cumulative effect of stressors among elite athletes.

**Design/Background/Key Points:** A mixed-method explanatory sequential study design was used to examine the extent to which cumulative lifetime stress predicted poor mental health and wellbeing; whilst, qualitative interviews were used to further explicate these findings. This design was adopted given that the constructs have not been investigated in an elite athlete population.

**Methods/Conclusions:** 95 elite athletes (M = 29.81; SD = 10.88) completed the Stress and Adversity Inventory (STRAIN), Patient Health Questionnaire (PHQ-9), Generalised Anxiety Disorder (GAD-7), and the Scale of General Well-Being (SGWB). From the sample, six elite athletes indicative of high levels of cumulative life stress participated within semi-structured interviews. Hierarchical regression analyses and thematic analysis were used to analyse the quantitative and qualitative data, respectively.

**Results/Conclusions:** Results revealed that cumulative lifetime stress significantly predicted depression ($\beta = .42$, $p = < .001$), anxiety ($\beta = .34$, $p = .003$) and wellbeing ($\beta = -.42$, $p = < .001$) above and beyond potential covariates. Qualitative data analysis revealed four themes: motivation, susceptibility to future stressors, interpersonal relationships, and control.

**Conclusions:** This study provides a novel approach to examining lifetime stress in elite athletes; thus, advancing empirical knowledge and applied understanding of the cumulative effect of stressors.

**Ref:** 3673 Experimental & Applied Oral Presentation
**Topic:** Performance Psychology

**Evaluation of an organisational intervention aimed at enhancing performance management processes in an Olympic sport programme**

Conor Molan, Seamus Kelly, Rachel Arnold, James Matthews

1University College Dublin, 2University of Bath

**Objectives:** There is a lack of organizational intervention studies in elite sport and limited understanding of how performance management (PM) processes can support organizational functioning in sport. This study’s objectives were to (1) assess PM processes within an Olympic sport programme, (2) develop and implement an intervention to enhance targeted PM processes, and (3) evaluate its feasibility and potential efficacy.

**Design:** A two-phase action research design was employed.

**Methods:** In Phase 1, data was collected from 20 organizational documents and 17 staff interviews. Data was triangulated and supplemented by the researcher’s reflexive journal. In Phase 2, a 10-week intervention underpinned by job demands-resources (JD-R) and job crafting theory was developed to target selected PM processes. Quantitative and qualitative methods were used to evaluate the intervention’s feasibility and potential efficacy.
**Results:** In Phase 1, clarifying roles and professional development of elite coaches were identified as the PM processes for the intervention. Phase 2 results indicated that the intervention was feasible in terms of being implemented as planned and being acceptable to participants. Regarding potential efficacy, there were mixed findings, with no significant changes in coaches’ work engagement, organizational commitment, or perceived organizational support. However, qualitative results suggested that the intervention can provide benefits such as increased role clarity.

**Conclusion:** By drawing on JD-R and job crafting theory, this is the first study to demonstrate how theoretical frameworks can contribute to developing individual-level PM processes and how processes can be applied with personnel who play an important role in facilitating athlete performance.

**Ref:** 3639 Experimental & Applied Oral Presentation  
**Topic:** Performance Psychology

**Optimising pressurised performance: The effects of a stress mindset and arousal reappraisal intervention among badminton players**  
*Lee Moore, Aodhagan Conlon  
University of Bath*

**Objectives:** The ability to perform optimally under pressure is a key predictor of sporting success, leading practitioners to develop interventions that help athletes cope better with stress. This study examined the effects of a stress optimisation intervention, which promoted a ‘stress-is-enhancing’ mindset and a positive interpretation of stress-fuelled increases in physiological arousal, on the pressurised performance of competitive badminton players.

**Design:** Randomised controlled trial.

**Methods:** 32 badminton players (Mage = 21 ± 2 years) reported their stress mindsets and interpretations of physiological arousal before performing a pressurised service task (pre-test). Players were then assigned to a stress optimisation or control group, with the former receiving an intervention (stress mindset videos and arousal reappraisal reading/Q&A exercise), and the latter completing a non-demanding task. Finally, after reporting stress mindsets and interpretations of physiological arousal, the players repeated the pressurised task (post-test).

**Results:** There were no between-group differences at pre-test. However, during the post-test, the stress optimisation group reported a more ‘stress-is-enhancing’ mindset (p = .001), and a more favourable interpretation of stress-induced increases in physiological arousal (p = .031), than the control group. The groups performed comparably during the post-test (p = .114). However, while the stress optimisation group improved their performance between the pre- and post-tests (p = .035), the control group did not (p = .683).

**Conclusions:** The findings suggest that a brief stress optimisation intervention that promotes a ‘stress-is-enhancing’ mindset and a more favourable view of stress-fuelled
increases in physiological arousal, has the potential to improve performance under pressure.

**Ref:** 3616 Symposia  
**Topic:** Other – Any applied practice or research that does not fit within the other themes

(S) Dual careers in sport – latest research and practice  
*Robert Morris¹, Emily Deason¹, Emma Vickers², Grace Harrison², Luke Allen²*  
¹Liverpool John Moores University, ²Talented Athlete Scholarship Scheme (TASS)

**Purpose:** This symposium brings together research projects from the UK with the aims to present the most recent results from the ERASMUS+ Ecology of Dual Career (ECO-DC) project, which investigates the environmental factors influencing dual career (DC) experiences, and the latest research and practical innovations occurring within the Talented Athlete Scholarship Scheme (TASS) network.

**Background:** A DC in sport is recognised as the pursuit of multiple careers, including a sporting career and a vocational career or an education. Research in this area, particularly within the UK and Europe, has increased considerably during the last decade. The symposium will begin with a brief introduction of the recent trends in the dual career research.

**Methods:** The recent research conducted in the ECO-DC project will then be outlined, including the types of dual career development environments (DCDE) across Europe, and an example of a successful DCDE from the UK. Following this, findings from a narrative enquiry will be presented, which investigates the DC experiences of UK athletes across university. The fourth presentation will outline research findings from an examination of the DC opportunities and experiences within a UK female football talent pathway. The final research project to be presented will outline the practical considerations to be taken from an exploration of DC experiences across the athletic lifespan. The symposium will then provide a practitioner’s insights into a unique DCDE, including the challenges, features, and processes.

**Conclusions:** Finally, concluding remarks on the most relevant research and practical conclusions and future directions will be given.
Paper 1: Introduction to current dual career research in sport psychology and an introduction to the Eco-DC project

Robert Morris, Liverpool John Moores University

Purpose: The main aim of the introduction is to briefly outline the current state of play within dual career research and current UK and European projects focused on this topic area.

Background: A number of projects have focused on understanding the individual factors which influence athletes’ abilities to successfully manage dual careers. From this and other work focused on athletes’ development, there has been a recognition that the environment athletes are in can also influence talent progression (e.g., Henriksen & Stambulova, 2017; Henriksen, Stambulova, & Roessler, 2010) and dual career success (e.g., Wylleman & Lavallee, 2004; Wylleman, Reints, & De Knop, 2013).

Methods: The current presentation will outline this shift from research focused on individual factors to environmental considerations which influence dual careers and outline European Commission funded research which reflects this change, the Ecology of Dual Careers (ECO-DC) project.

Conclusions: The presentation will conclude the main research considerations that are addressed in the symposia presentations, including in-depth understandings of DCDEs.

Paper 2: A European taxonomy of dual career development environments across Europe

Robert Morris, Emily Deason, Liverpool John Moores University

Objectives: This research aimed to identify and classify the types of dual career development environments (DCDE) that are common across Europe and provide real-world examples of these categories.

Design: A qualitative exploration and identification of DCDEs across seven participating countries in Europe (Sweden, Spain, Belgium, Slovenia, Finland, and United Kingdom) was conducted.

Methods: A small team of researchers from each participating country conducted interviews and focus groups with national experts (n=31), and explored publicly available documentation (e.g., websites, brochures) on the existing DCDEs in their respective countries. A cross-country analysis was then conducted by a UK team and verified with a
further European focus group (n=17).

**Results:** The analysis and verification process resulted in the identification of eight types of DCDE which exist across Europe, classified according to key features such as, primary stakeholder, educational level targeted, and sporting level targeted. DCDEs identified include elite sport schools, combined dual career programs, and national sports programs.

**Conclusions:** A classification system of these environments aids the comparison of like-for-like environments in practice and in research. The taxonomy of these DCDEs also provides information of the gaps in support environments at certain stages of the athletic career, e.g., early schooling environments for early specialisation sports, vocational-based environments, and support in discontinuation/retirement from the athletic career.

**Ref:** 3619 Part of Symposia  
**Topic:** Other – Any applied practice or research that does not fit within the other themes

**Paper 3: European case study analyses of dual career development environments: Findings from a UK university scholarship system**  
*Emily Deason, Robert Morris, Liverpool John Moores University*

**Purpose:** The purpose of this presentation is to convey the findings from case study analyses of European dual career development environments (DCDE)s, with a particular focus on a UK case study of a university scholarship system. The research aims to develop a holistic model of the DCDE and identify common success factors through a cross-case analysis of the seven European cases.

**Background:** While the individual factors that impact a dual career (DC) have been widely explored in the research, there is a need to better understand and explore the environmental factors. As part of a European-wide project, and the aim to further explore DCDE environments, this research used a holistic ecological approach to explore seven DCDEs across Europe.

**Methods:** A holistic ecological approach enables an in-depth understanding of the DCDE, including the structure, processes, and philosophy which define it. In the case of the UK research, seven semi-structured interviews were conducted with various members of the DCDE, including DC athletes, lifestyle advisors, and sport science coaches. This data collection was supplemented with observations of the DCDE taken over a 3 month period and document exploration (e.g., websites and brochures).

**Conclusions:** A holistic model of the UK university DCDE is developed and factors which are common to successful DCDE environments are outlined, including the existence of a DC support team, communication within the DCDE, and a philosophy that emphasises health and development of the whole person. By understanding these factors practitioners can evaluate their own environments and identify areas for optimisation.
Paper 4: A narrative enquiry of the dual career experiences of UK athletes across university

*Emma Vickers¹, Robert Morris², ¹Talented Athlete Scholarship Scheme, ²Liverpool John Moores University*

**Objectives:** To examine the university dual career experiences of athletes as they move through different years of study. Specifically, this included an exploration of factors that influence positive and negative experiences at university and the importance of specific time points at university for athletes.

**Design:** A longitudinal qualitative design was employed to collect in-depth data from athletes as they moved through their undergraduate degrees at university.

**Methods:** Data were collected through semi-structured interviews (n=22) with student-athletes (n=9) in their first, second, and third years at university across 3 different time points in the academic year. Data were supplemented with autoethnographic data from the author (a former student-athlete), including an examination of news articles written about the author during university. Data were analysed using a form of narrative analysis by drawing on creative non-fiction principles.

**Results:** The results suggest that athletes have diverse and challenging experiences at university, represented within five narratives (e.g., sport focus narrative, injury narrative). Student-athletes recognised the value of being in a dual career, yet most had underwhelming experiences, failing to reach their desired potential. Factors that influenced experience included motives for entering university, quality of relationships, injury, issues in their home life, and perceived barriers in seeking social support.

**Conclusions:** Results highlight the individuality of dual career experiences, suggesting the importance of a tailored support package. The narratives also highlight the need for more efficient communication channels between university, clubs, and NGB’s, and education around the awareness of critical moments that could influence dual career outcomes.

Paper 5: The dual career opportunities, transitions, and experiences of female footballers across a talent development pathway

*Grace Harrison, Emma Vickers, Talented Athlete Scholarship Scheme (TASS)*

**Objectives:** Key changes within The FA have seen a focus on developing ‘home grown’ talent within the women’s side of the game, whilst also supporting players’ dual career development. The main objective of this research is to understand the women’s dual career pathway from the start of the pathway at age 14 through to the senior level, including an exploration of challenges, opportunities, transitions, and support structures within each age.
Design: A qualitative design was employed, allowing players and stakeholders to share their knowledge and experiences.

Method: Data were collected via interviews (n=20) and focus groups (n=4) with female players in different stages of the pathway, retired players, FA representatives (e.g., heads of education, coaching staff), individuals in managerial positions, performance lifestyle advisors, university directors of sport, and parents. Data were analysed thematically.

Results: Results suggest that female footballers experience different demands and decisions within each age group (e.g., entering new clubs, choosing educational options, and taking on new responsibilities being part of the England development pathway), and often do not have awareness of the available dual career opportunities. Recommendations have been made for education of different stakeholder groups (e.g. parent, coach and teacher education on how to support players through the challenges of a dual career; player, parent and coach education on educational options).

Conclusions: Results will inform the women’s football talent pathway, providing players and stakeholders with a framework tool they can utilise to find information on the dual career opportunities and support services that are available.

Ref: 3622 Part of Symposia
Topic: Other – Any applied practice or research that does not fit within the other themes

Paper 6: An theoretical and empirical exploration of the multitude of dual career experiences
Emily Deason1, David Fletcher2, Christine Coupland2, 1Liverpool John Moores University, 2Loughborough University

Purpose: To outline the key practical implications which have emerged from research projects conducted as part of a PhD on DC in sport. The presentation will also outline the involvement of practical knowledge in informing the research.

Background: The DC research context has largely focused on the experience of combining sport with compulsory education and/or higher education (Stambulova & Wylleman, 2019). While this is considered to be a common and normative pathway for DCs, in practice, a DC athlete can take a number of different pathways throughout the athletic lifespan, including the pursuit of sport with a vocation, which has been less explored in the research. The research aimed to better explain the various experiences of dual career seen in practice and factors which contribute to the development of these experiences.

Methods: Three mixed methods research projects, conducted as part of a PhD, informed this presentation. The aim to better reflect the various DC experiences seen in practice informed the participant recruitment process and research question of each of the projects. Furthermore, the experience of a practising expert was drawn upon to address the relevance of the research and it’s findings to the real-world context.
Conclusions: The contribution of these findings to the research context and the implications for practitioners and sport organisations will be outlined. In particular, the need to increase awareness of the various approaches to and experiences of DC. Furthermore, the need for further research which reflect these different experiences is considered.

Ref: 3623 Part of Symposia
Topic: Other – Any applied practice or research that does not fit within the other themes

Paper 7: Experiences of delivering dual career support to soldier-athletes: an applied lifestyle practitioner perspective
Luke Allen, Talented Athlete Scholarship Scheme (TASS)

Objectives: The presentation provides an applied perspective of a lifestyle practitioner delivering dual career support to soldier-athletes within the Talented Athlete Scholarship (TASS) programme. The objectives of the presentation are to provide the audience with an overview of the dual career support provided to soldier-athletes within the TASS programme, the unique challenges that soldier-athletes experience when combining sport and army duties, and methods of supporting this population.

Design: The presentation is an applied practitioner perspective.

Methods: The presentation contains the subjective views and experiences of a practitioner who has been embedded in an army dual career environment and delivering lifestyle support for 3 years to soldier-athletes. The views of lifestyle advisers delivering to soldier-athletes were also obtained through informal conversations with practitioners from the wider TASS network.

Results: The presentation highlights the skills that soldier-athletes acquire through managing their army career in collaboration with the pursuit of sporting aspirations. The presentation also highlights the differences and similarities between soldier and student athletes, alongside the benefits and challenges experienced by both army athletes and practitioners in pursuing and supporting this form of dual career.

Conclusions: The presentation gives insight and recommendations into areas to consider when delivering lifestyle and psychology support to soldier athletes to maximise their dual career and personal development opportunities.
Objective: The study investigated whether interoceptive accuracy mediates the link between physical activity and emotion regulation, in addition to examining if emotion regulation mediates the link between interoceptive accuracy and mental wellbeing. It was hypothesised that physically active participants would display greater interoceptive accuracy than less physically active/sedentary participants. Secondly it was hypothesised that participants with greater interoceptive accuracy would exhibit better emotion regulation and mental wellbeing.

Design: A correlational study looking to explore mediational relationships between the variables of interoception and physical activity.

Methods: 99 participants aged 18 to 35 were recruited. Participants completed an online survey which included the Global Physical Activity Questionnaire version 2 (GPAQv2), Interoceptive Accuracy Scale (IAS), Emotion Regulation Profile-Revised (ERP-R), and Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The Exercise Addiction Inventory: Short Form was also included to control for a clinical level of exercise addiction.

Results: Qualitative findings revealed that there were no significant correlations found between physical activity and any of the other variables. However significant correlations were found between emotion regulation, mental wellbeing, and interoceptive accuracy. Mediation results revealed that interoceptive accuracy had a significant indirect effect on mental wellbeing through emotion regulation, b=0.255, BCa CI [0.071, 0.477]. However physical activity did not have a significant indirect effect on emotion regulation through interoceptive accuracy, b=8.628, BCa CI [-43.458, 63.021].

Conclusions: The results suggests that emotion regulation has a link with interoceptive accuracy impacts mental wellbeing. Additionally, the relationship between physical activity, emotion regulation, and mental wellbeing was found to be more complex than the methods used within this study, therefore, these results serve as a base for future research.
Exploring male athletes’ perceptions of self-compassion in sport

Kacey C Neely, Louise C Paul
University of Stirling

Objectives: Self-compassion is a multidimensional construct comprised of three key components: self-kindness, common humanity, and mindfulness. While self-compassion has demonstrated many psychological benefits for female athletes, little research has focused on male athletes. The purpose of this study was to explore male athletes’ perceptions of self-compassion as a potential mechanism to cope with adversity in sport.

Design: The qualitative methodology of interpretative phenomenological analysis (IPA) was used.

Methods: To purposefully sample participants, 95 male university-level athletes completed the Self-Compassion Scale. Ten athletes (5 high and 5 low self-compassion scores; M age = 20.8 years, SD = 0.92) then participated in individual semi-structured interviews. Data were analysed using IPA.

Results: Results indicated that athletes thought self-compassion could have a positive impact on sporting performance and wellbeing. They thought mindfulness and common humanity could be particularly helpful in coping with injuries and putting their adversity into perspective. Although athletes acknowledged the potential benefits of being self-compassionate, they expressed concern about implementing self-compassion in their own sport experiences. Self-kindness was perceived as detrimental to performance and athletes reported that self-criticism was necessary to succeed at higher levels of competition. Athletes also thought self-kindness conflicted with the perceived masculinity and team environment that existed in male sport.

Conclusions: This study offers insight into male athletes’ understanding of self-compassion and their reservation to use self-compassion as a coping resource in sport. Findings may help to inform future self-compassion interventions tailored for male athletes.


Ref: 3994 Review/Theoretical & Practice Poster Presentation
Topic: Sport & Exercise Psychology in the 21st Century

Perceptions and attitudes to sport psychology interventions during rehabilitation: A premiership men's rugby union perspective.

*Marcus Nel, Ahead for the game*

**Objectives:** This research explored perceptions and attitudes held by rugby union players and SIRP’s towards sport psychology during the rehabilitation phase of injury.

**Design:** The research was conducted using a qualitative interpretive approach was taken to explore the meaning of the participants’ experiences.

**Methods:** Purposeful sampling was conducted in order to reach the desired population. Beyond this, random selection was employed due to the unpredictable nature of players injury. Data was collected through semi-structured interviews focusing on the rehabilitation process. Thematic analysis was used to analyse and interpret the findings.

**Results:** Findings indicated that both players and SIRP’s have positive attitudes towards sport psychology despite limited knowledge and experience. Return to rugby and performance was a key focus during the rehabilitation process. In order to achieve this, basic psychological skills were employed by players and SIRP’s throughout the process. Beyond this, different psychological concepts are employed by both players and SIRP’s at different stages throughout the RTP process.

**Conclusions:** There was a positive attitude within this sample towards sport psychology and the use of it during the rehabilitation process. Sport psychology could possibly be used to help manage the emotional responses that occur whilst injured and possibly accelerate certain stages of the rehabilitation process. Whilst motivation and adherence are key factors influencing rehabilitation, this could be an area in which sport psychology could contribute. The research only considered an academy rugby playing sample, therefore it would be useful to conduct research in other contexts to improve the transferability of findings.

Ref: 3607 Experimental & Applied Oral Presentation
Topic: Mental Health and Wellbeing

"The Dividing Line": Conceptualising bullying, banter and teasing in professional football

*James Newman¹, Victoria Warburton², Kate Russell²*

¹Sheffield Hallam University, ²University of East Anglia

**Objectives/Purpose/Background:** The purpose of this presentation is to explore how professional footballers conceptualise the terms bullying, banter and teasing. More specifically, this presentation seeks to explore the extent to which bullying, banter and teasing are conceptually distinct within professional football.
Design/Background/Key Points: The study adopted a phenomenological approach, which focused on the essences of the participants' perceptions and experiences. This approach was selected due to its aim of unearthing individual conceptualisations of these terms, as well as its ability to reflect the convergences and divergences both within and across the participants' accounts.

Methods/Conclusions: Guided by Interpretative Phenomenological Analysis (IPA) individual semi-structured interviews (MDuration = 44.10, SD = 10.81) were conducted with 18 professional footballers (Mage = 19.83, SD = 2.96) from three Premier League and Championship football clubs. Given IPA research calls for a homogenous sample, a purposive approach was adopted to recruit the study's participants.

Results/Conclusions: The findings from this study revealed several key superordinate themes in relation to the dividing line between bullying, banter and teasing. These themes included 'perception', 'intentionality', 'detecting the line', 'masculinity' and 'bantering'.

Conclusions: Although the findings support parts of the existing literature on the differences between bullying, banter and teasing, they also demonstrate how these concepts are nuanced by individual differences and context. From an applied perspective, these findings highlight the need for coaches, players and football clubs more broadly, to be aware of the individualistic nature of perception in relation to bullying, banter and teasing. Moreover, in places they challenge the typically positive view of the concept of banter in this environment.

Ref: 3579 Experimental & Applied Poster Presentation
Topic: Sport & Exercise Psychology in the 21st Century

To investigate the psychological effects of injury on footballers, and the implication this has on rehabilitation choice
Coral-Jade Oakley, Solent University

Objectives/Purpose/Background: Injury is a significant part of football; becoming increasingly more frequent. The rehabilitation process is becoming more advanced and a vast amount of research has taken place including males, however, little research compares the needs of both genders. It has been found that emotional response and cognitive appraisals differ across gender, yet they have been treated similarly for years without depth into the preferred rehabilitation techniques. This research aims to compare the differences of psychological effects of injury between genders and the implications this has on rehabilitation choice.

Design/Background/Key Points: A qualitative, case study design was adopted to gain in depth, textual data from a small sample of participants in order to provide this research with the necessary details to emerge specific and frequent themes.

Methods/Conclusions: 8 footballers recruited through a convenience sample and 5 inclusion criteria. A PHQ-9 was given to all participants previous to any interviewing and HESEC guidelines were adhered to. 6 stages of thematic analysis were followed after semi-structured interviews; adopting a latent, deductive approach.
Results/Conclusions: The main themes found were: Emotional Response - Fear of Re-Injury, Anxiety and Anger / Frustration; Preferred Rehabilitation Techniques – Physical Support, Social (Emotional) Support, Psychological Intervention.

Conclusions: Differences in emotions were experienced between gender and a differ in preference of rehabilitation techniques, due to the psychological experiences of injury. Differences in preferences towards rehabilitation techniques may lead to a change in application of future rehabilitation. Changes may need to be made in the support received between genders depending upon the findings from this study.

Ref: 3649 Experimental & Applied Oral Presentation
Topic: Performance Psychology

A think aloud protocol of meta-attention in golf
Alex Oliver, Paul J. McCarthy, Lindsey Burns
Glasgow Caledonian University

Objectives/Purpose/Background: A grounded theory study (Oliver, McCarthy & Burns, under review) depicted meta-attention as a bottom-up resource based process; showing concentration came from a positive evaluation of attentional resources and successful implementation of an attentional control strategy. The theory suggests that internal distractions occur when a resource is perceived to be missing when it is required. Nevertheless, there remains ambiguity over the operation of meta-attention during a performance. The aim of the present study is to use concurrent data collection to understand attentional processes within performance.

Design/Background/Key Points: Concurrent Think Aloud (TA) Level 3 (Ericcson & Simon, 1993) was used to explore attentional thoughts and control amongst golfers and provide an ecologically valid understanding of attentional processes within performance.

Methods/Conclusions: 7 (4 male, 3 female) experienced golfers (Handicap M= 14.43, SD= 8.78) engaged in TA over 6 holes of golf at their home golf club. Verbal reports were transcribed in their entirety and were then subject to verbal protocol analysis (Ericsson & Simon, 1993) and Maykut and Morehouse’s (1994) line-by-line content analysis.

Results/Conclusions: Themes were organised according to Oliver et al. (under review) model of meta-attention. The results show that golfers drew on a range of attentional resources at different times, however, golfers performed consistent pre-shot routines throughout as a means of controlling their attention.

Conclusions: The results provide greater theoretical insight into the operation and controllability of attention within an intermittent sport. Nevertheless, due to the intermittent nature of golf it is likely that the findings from the current study are limited to golf.
A systematic review of performance and image enhancing drug use in military personnel

Emily Pattinson\textsuperscript{1}, Ian Whyte\textsuperscript{2}, Jonathan Ling\textsuperscript{2}, Sandra Leyland\textsuperscript{2}
\textsuperscript{1}University of Leeds, \textsuperscript{2}University of Sunderland

Purpose: The current review aimed to address bring together disparate bodies of research relating to performance and image enhancing drugs (PIEDS) use in active military personnel and veterans to provide a substantial basis for further research into interventions and support to understand and reduce PIED use in veterans.

Background: As PIEDS become more widely available online their use is becoming a public health concern, particularly among active military personnel and veterans. PIEDS have been linked to poor physical health, poor mental health and a reduction in mission readiness in active personnel.

Methods: A systematic review was conducted using five academic databases, citation searching and targeted searching of military publications. Studies published before 2000 or without a focus on PIEDS use in a military sample were excluded. Twenty studies were identified for review.

Conclusions: The reviews found that anabolic steroids and weight-loss supplements were the most used PIEDS. Image enhancement was identified as the primary motivation for use, followed by keeping up with the physical and mental demands of active duty. Additionally, finding suggested that young, male, non-commissioned army personnel were the most likely to use PIEDS. The current review highlighted clear gaps in the literature surrounding when PIEDS use began and PIEDS use in the veteran community. A greater understanding of the motivations behind PIEDS use in military personnel is necessary to allow the development of interventions to reduce the impacts of PIEDS on health, welfare and military readiness.

Exercise in retirement: Barriers, motivations and activities

Josephine Perry, Performance in Mind

Objectives: A study undertaken to support the expansion of services by Silverfit, a charity promoting happier, healthier ageing though physical activity. Silverfit was keen to understand the barriers to retirees exercising, their motivations for doing so, specific activities they would be keen to try and who they trust to offer physical activity information.

Design: The study was designed as an online survey of those in the UK in receipt of a pension.
**Methods:** Recruited through Silverfit and parkrun networks, 5,916 participants (average age 66) fully completed the survey.

**Results:** The participants were already active (57.4% a member of gym or sports club; 85.5% 150 minutes of exercise a week), yet 61.1% said they would like to be more active. Their top three reasons for not completing more exercise were a lack of time, poor weather and a fear of injury. Their motivations focused around improving physical and mental health and feeling good. As the majority of participants already run we found that very few were looking to try that sport but retirees were really keen to try Pilates and Yoga, Bowls, Dancing, Walking, Golf and Martial arts. Their GP was the professional they trusted most to offer advice. 2,918 ideas were put forward by participants as to how to increase exercise options for retirees and were themed around accessibility, information provision, funding, professional support, social support, transport, facilities, activities and community infrastructure.

**Conclusions:** Silverfit sessions and promotional routes are now being designed with these findings in mind.

**Ref:** 3624 Workshop  
**Topic:** Mental Health and Wellbeing

**Dysfunctional behaviours and athlete wellbeing: The role of the sport and exercise psychologist**  
*Carolyn Plateau, Jamie Barker  
Loughborough University*

**Objectives/Purpose/Background:** Whilst only a relatively small proportion of athletes will experience a mental health disorder, all athletes will likely encounter stressors both within and beyond the sporting environment that can threaten their wellbeing. Managing stressors may often take the form of dysfunctional behaviours, such as disordered eating, compulsive exercise or substance use. The occurrence of such behaviours in athlete populations is high, and the potential negative impact on health, wellbeing and performance is considerable. It is likely that practitioners will encounter athletes engaging in dysfunctional behaviours; hence raising awareness of and acknowledging the role of the sport and exercise psychologist in managing these behaviours is of paramount importance.

**Design/Background/Key Points:** This interactive workshop will be useful to both researchers and practitioners working with athletes. Delegates will engage in discussions around the definition and meaning of athlete wellbeing. An overview of the presentation, causes and impact of dysfunctional behaviours will be provided and discussions around the remit of the sport and exercise psychologist in identifying and supporting athletes engaging in dysfunctional behaviours will be held. Delegates will demonstrate an understanding of:

1. The nature of athlete wellbeing and distinction from mental health disorders
2. Risk factors, triggers and presentation of dysfunctional behaviours among athletes
3. Challenges and opportunities for the sport and exercise psychologist
4. When to refer athletes for clinical support.
Methods/Conclusions: Delegates will be provided with knowledge and insights into the occurrence of dysfunctional behaviours among athletes and the role of the sport and exercise psychologist in identifying and managing these behaviours.

Ref: 3846 Experimental & Applied Poster Presentation
Topic: Performance Psychology

Archers’ experiences of target panic: An interpretative phenomenological analysis
Erin Prior¹, Dr. Janine Coates²
¹EP Sports Psychology, ²Loughborough University

Objectives: Performance blocks have been shown to impact athletes in a range of sports and can significantly impact athlete wellbeing and career progression. However, little is known about performance blocks in target sports like archery, better known as ‘target panic’. Therefore, this study aimed to better understand experiences of ‘target panic’ to explore the impact of this performance block for archers.

Design: The study used a qualitative Interpretative Phenomenological Analysis (IPA) design in order to give voice to archers’ experiences of the phenomenon.

Methods: Seven archers (male n=3, female n=4) who experienced target panic were recruited using snowball sampling. Data was collected using semi-structured interviews, which explored participants experiences of target panic. Data was analysed using IPA.

Results: The findings showed that target panic is a complex issue, highlighting that an archers’ desire to reach an expected outcome may lead to its’ manifestation. The focus on outcomes leads to increased need for control over execution alongside increased anxiety, and the development of anxiety-avoidant behaviours. Archers process this by attempting to regain control over their shot execution, using a range of coping mechanisms. The findings suggest that adopting an outcome focus can be detrimental to performance, leading to the development of performance blocks.

Conclusions: These novel findings add weight to the existing performance blocks literature by illustrating the similarities and differences between target panic experienced by archers and performance blocks in other sports. It concludes with recommendations for the management of performance blocks in archers.
Ref: 3665 Workshop
Topic: Performance Psychology

Supporting the staff as performers in elite sport: Conditions and considerations
Daniel Ransom¹, Mark Nesti², Martin Littlewood²
¹Liverpool John Moores University/Manchester United FC, ²Liverpool John Moores University

Objectives/Purpose/Background: Coaches often hold a significant degree of power and influence over the sport environment and the people in it. It is recognised that buy-in from coaches can add great credibility to the work of the sport psychologist, and without it their effectiveness can be significantly undermined. Whilst there is recognition that coaches are important, and their support can help the psychologist, little is said about how the psychologist can help the coach. Work in this area is often focused on “supporting the coach to support the athlete”, but given the challenges and pressures that coaches and support staff at the highest levels experience, isn’t it time they were considered a client group themselves? The workshop will focus on the conditions that must be developed for this work to take place, and provide examples of activities/intervention that may be considered when supporting staff as performers.

Methods/Conclusions: Informed by research related to effective service delivery in applied sport psychology, the workshop will provide an overview of the personal qualities and skills required by psychologists looking to carry out this work. Reflections and experiences of the workshop facilitators will draw attention to the importance of developing and maintaining cultural sensitivity.

Conclusions: Attendees will develop an understanding of cultural/contextual factors that should be considered when working with coaches/staff as performers, and develop an understanding of how to develop fertile conditions for this work to take place. Examples of previous work will provide attendees with practical application of these ideas to consider adopting in their own practice.

Ref: 3664 Case Study
Topic: Sport & Exercise Psychology in the 21st Century

‘What am I doing here?’: Supporting athlete transition between professional football clubs
Daniel Ransom¹, Mark Nesti², Martin Littlewood²
¹Liverpool John Moores University/Manchester United FC, ²Liverpool John Moores University

Purpose & Background: A career in professional football is likely to see players move between clubs numerous times throughout their career. The growing professionalisation of youth development programmes and competition for talent means more young players are moving between professional clubs at a younger age. The purpose of the case study is to 1) present an overview of the challenges young people in particular may experience during this
transition, and 2) provide a framework to help guide a systemic approach to supporting young people transitioning between clubs.

**Methods:** Utilising a reflective single case study design, the presentation will be guided by applied reflections of the author, developed through varied forms of reflective practice, supervision during professional doctorate study, and experiences of working full time in a sport psychology role in professional football. Additionally, the case study will draw on research and theory related to transition and cultural adjustment. Insight into the case will be provided via the case formulation and an overview of the support that followed.

**Results & Conclusions:** Consideration will be given to the complexities associated with providing psychology support to young people, and “inside” professional football clubs. The explanatory model developed during the case study will be presented to help provide insight into the changes experienced by the client and provide a framework to guide a systemic approach to support during this time. Key considerations for supporting young people experiencing transition related challenges will be presented.

Ref: 3992 Experimental & Applied Poster Presentation

**Topic:** Exercise and Physical Activity

**Promoting physical activity amongst university employees through the ‘10,000 steps challenge’**

*Ayazullah Safi, Adam Kelly, Matthew Cole, Natalie Walker*

*Birmingham City University*

**Objectives:** In the UK, ~20 million adults are inactive, whilst estimation shows ~32 million people are in employment. Occupations involving sedentary behaviour are considered a main contributor to inactive lifestyles, whereas research demonstrates a high proportion of adults do not meet the recommended guideline of 10,000 steps a day. Thus, the aim of this intervention was to promote physical activity (PA) amongst university employees through ‘10,000 steps challenge’ (10kSC).

**Design:** A mixed methods, explanatory sequential design was employed.

**Methods:** Baseline data was collected using the ActiGraph (WGT3X-BT) within a UK university (*n*=64). Subsequently, eight teams participated in the 10kSC, including Academic Senior Management (*n*=4), Admin Assistants (*n*=4), Educational Social Work (*n*=7), Health Sciences (*n*=8), IT (*n*=8), Library (*n*=5), Nursing and Midwifery (*n*=8), and Sport and Exercise (*n*=3). Teams competed against each other using a generic league format across seven weeks, with each, ‘match’ accumulating the total steps from each team to form respective results. Following the 10kSC, completion participants completed open-ended questionnaire to gain an understanding of their perceptions of participation.

**Results:** The baseline steps mean ± SD (5959±3978) showed that university employees did not meet the recommended daily steps. However, during the 10kSC, employees daily steps increased by 5821 to meet the recommended steps (11780±3019). Furthermore, the

**Conclusions:** This study suggests that the 10kSC may help improve university employees’ PA levels, whilst also enhancing perceived teamwork and increased productivity.

**Ref:** 3602 Experimental & Applied Poster Presentation
**Topic:** Sport & Exercise Psychology in the 21st Century

**The effect of mindfulness training on sport injury anxiety during rehabilitation**

*Bernice Sant, Dr Martin Eubank, Dr Mark Nesti*

*Liverpool John Moores University*

**Objectives/Purpose/Background:** This study investigated whether mindfulness training can play a role in decreasing sport injury anxiety during rehabilitation.

**Design/Background/Key Points:** To establish whether sport injury related anxiety can be reduced after a full Mindfulness-Acceptance-Commitment (MAC) intervention, a quasi-experimental mixed-method study design was chosen for triangulation.

**Methods/Conclusions:** Injured participants (N = 10) recruited from different sports and quasi-randomly assigned to either a mindfulness intervention group (n = 5) or control group (n = 5). Both groups completed the Mindfulness Attention and Awareness Scale and the Sport Injury Anxiety Scale pre- and post-intervention, while the intervention group also took part in social validation interviews when the intervention was completed.

**Results/Conclusions:** The mixed ANOVA indicated that there was a significant interaction effect between group and time for both mindfulness (p < .01) and sport injury anxiety (p < .01) and also for time (p < .05) for both mindfulness and sport injury anxiety. However, there was no main effect for group separately in both mindfulness and sport injury anxiety. Additionally, Awareness, Acceptance and Action were the three super-ordinate themes elicited from the social validation interviews.

**Conclusions:** Following an evaluation of the strengths and weaknesses of this study, the theoretical significance of the results was assessed and the promise for the application of mindfulness training in decreasing sport injury related anxiety during rehabilitation was discussed.

**Ref:** 3642 Review/Theoretical & Practice Poster Presentation
**Topic:** Sport & Exercise Psychology in the 21st Century

**Mindfulness interventions in sports: Systematic review and mapping**

*Bernice Sant, Liverpool John Moores University*

**Objectives/Purpose/Background:** To evaluate the methodological quality of the research conducted on mindfulness interventions among competitive athletes.
**Design/Background/Key Points:** Building on the three systematic reviews already present on mindfulness interventions in sports, this review provides another viewpoint on the quality of mindfulness intervention studies to date.

**Methods/Conclusions:** Randomised and Non-randomised studies involving any kind of mindfulness intervention, modified versions of mindfulness programmes, and those where an ACT approach was used, as long as, a mindfulness intervention in a sport competitive setting was present, were eligible for inclusion. The searches were completed through SPORTDiscus; Web of Science; PubMedCentral; PsychINFO, among others, between July-November 2017 where a total of twenty-three studies met the inclusion criteria (n = 19,048). Risk of bias was assessed using the Downs and Black checklist and the Cochrane Risk of Bias Tool with ratings ranging from poor to very good. Due to the heterogeneity, a narrative review (n = 23) on the quality of studies, alongside a systematic map on the studies that provided full details of results (n = 17) was carried out.

**Results/Conclusions:** The results have suggested that mindfulness-interventions may be of benefit. That said, similar methodological problems emerged (e.g. lack of data reporting, small sample sizes, few studies having an active control, lack of blinding, unclear randomisation, and lack of homogeneity) with the additional complexities in defining mindfulness highlighted.

**Conclusions:** Making strong causal claims about the benefits these strategies offer for athletes can be difficult as there’s still more room for improvement.

**Ref:** 3635 Review/Theoretical & Practice Oral Presentation
**Topic:** Performance Psychology

**The psychology of clutch performance: A systematic review**

*Matthew Schweickle¹, Patricia Jackman², Stewart Vella¹, Christian Swann³*

¹University of Wollongong, ²University of Lincoln, ³Southern Cross University

**Purpose:** To systematically review, synthesise, and evaluate existing research on clutch performance. Primary objectives included reviewing how clutch performance has been defined and measured, assessing the quality of the available evidence, and discussing findings regarding the occurrence of clutch performances.

**Background:** Clutch performance is commonly understood as increased performance under pressure, typically in the context of sport. There has been a considerable rise in both the quantity and diversity of research examining clutch performance in the last decade. However, definitions of clutch performance have been criticised as being inadequate, whilst fundamental questions surround whether clutch performance even exists as an observable phenomenon in sport.

**Methods:** This review was guided by the PRISMA guidelines. A systematic search of the literature across 10 databases was completed. Papers were included if they were a peer-reviewed journal article in English language, reported original empirical evidence, published prior to May 2019, and investigated clutch performance in the field of sport, exercise, or
physical activity. In total, 31 empirical studies met the inclusion criteria. A narrative synthesis of qualitative and quantitative findings was conducted.

**Conclusions:** There is considerable heterogeneity in how clutch performance has been defined, conceptualised, and measured, limiting the ability to draw valid conclusions surrounding the existence, or occurrence, of clutch performance. This review highlights the need to establish consensus surrounding definitions of clutch performance. Specifically, this review outlines the need to explore the aspects of performance that are necessary for clutch performances, in addition to investigating what situations athletes evaluate as constituting pressure.

Ref: 3991 Review/Theoretical & Practice Poster Presentation
Topic: Performance Psychology

**Investigating the functions of pre-performance routines: A systematic review**
*Rebecca Scott, Paul McCarthy*  
*Glasgow Caledonian University*

**Objectives/Purpose/Background:** This systematic review builds on previous research conducted on pre-performance routines to examine how these routines contribute to sport performance. Following recommendations from Cotterill (2010), this review aims to explore the processes that underlie the relationship between the use of pre-performance routines and performance in an attempt to understand the different functions that these routines provide to athletes when completing a sporting task.

**Design/Background/Key Points:** Effective performance preparation is often the key to successful performance and the use of pre-performance routines have been widely documented as a method of enhancing performance. What remains unclear in the literature are the roles that these routines provide to performance, as the majority of research has tended to investigate the impact of routine use on performance or the characteristics of routines. This review aimed to search all of the available literature and document the functions that these routines provide to performance and athletes.

**Methods/Conclusions:** A systematic review of the literature was conducted across multiple online databases and journals to access published research. Following a comprehensive search and screening process, twelve studies met the main inclusion criteria of an explicit examination of pre-performance routine function.

**Results/Conclusions:** From the accessed studies, pre-performance routines appear to provide a variety of functions to sports performance, including the application of specific psychological skills, reductions in anxiety, attentional control, task-specific features and automaticity of routine use and skill. Further examination is required as this is a first and well-needed attempt at examining the functions that pre-performance routines provide to sport performance.
Exploring experiences that influence the development of a consulting philosophy within applied sport psychology practitioners

Aaron Shaheed, David Tod
Liverpool John Moores University

Objectives: The purpose of this study was to examine (a) the various layers that form a practitioner’s consulting philosophy and (b) the experiences that influence the formation of a consulting philosophy. A practitioner’s consulting philosophy should inform all areas of applied practice, however, only a small proportion of research articles within the field of sport and exercise psychology have explored the area.

Design: Qualitative interviews, allowing rich data to be gathered.

Method: Participants were selected via online searches of the BPS directory and U.K. university websites. Four HCPC registered applied sport and exercise psychology practitioners (3 males and 1 female, aged 34-59) with at least 5 years of applied experience partook in semi-structured interviews. The interviews were guided by Poczwardowski, Sherman, and Ravizza's (2004) hierarchy of professional philosophy. Participants were also encouraged to construct timelines to explore the experiences influencing their philosophy. The data was analysed using a thematic content analysis.

Results: Whilst having a preferred theoretical orientation, practitioners were found to draw upon a range of influences to inform consultancy. Factors such as family upbringing, friends, broader life events, research conducted, reading, supervision, and ongoing reflection were found to be key to the development of a consulting philosophy.

Conclusions: Experiences acquired both inside and outside of training contribute to the development of practitioners’ consulting philosophies. Applied to the field, practitioners could be encouraged to reflect further upon how their broader life influences their practice. These factors could be considered within reflective diaries and discussions with supervisors.

Assessing mental health competence in a mindfulness based mental health intervention for athletes

Stephen Shannon¹, Donncha Hanna², Gavin Breslin¹
¹Ulster University, ²Queen’s University Belfast

Objectives: To determine the effect of a mindfulness-based intervention on mental health outcomes in athletes, and; to assess the mechanisms of change using mediating variables of mindfulness awareness, and competence in mental health self-management, a component of Self-Determination Theory.
**Design:** A 2 (groups) x 2 (time-point) non-randomised controlled trial was conducted, comprising 238 athletes (mean age = 20.47 years, SD=3.30, 57.6% = males; intervention group n=108). The intervention group received an instructional workshop, and a two-week, home-directed mindfulness programme involving daily guided meditation sessions available through a mobile phone application.

**Method:** Regression Models 1 and 2 tested as mindfulness awareness and competence as primary and secondary mediators, respectively, and were regressed onto stress and wellbeing. Gender and age were controlled for in the analyses.

**Results:** In Model 1, mindfulness was not directly enhanced by the intervention, subsequently resulting in null intervention effects. A significant proportion of variance was predicted in Model 2 (R2=.54), wherein the intervention predicted a direct positive change in mental health competence (β=.39, p <.05). Indirect intervention effects were present for mindfulness awareness (β=.07, p < .05), stress (β=-.06, p <.05), and wellbeing (β=.05, p <.05) through competence.

**Conclusions:** Athlete mental health can be promoted through mindfulness programmes that enhance competence in mental health self-management, that may be important for the self-regulation of stressors. However, the temporal association between competence and mindfulness, and their salutary effects requires further assessment.

**Ref:** 3686 Workshop
**Topic:** Performance Psychology

---

**Creating environments where people can thrive**  
*Cath Shearer, Louise Jones, Chris Beaumont*  
*Sport Wales*

**Objectives/Purpose/Background:** National Governing Bodies are highlighting the need for creating psychologically informed environments, and to develop cultures that put the person first. The purpose of this workshop would be to explore what a sport psychologist can do to support this work in terms of their role and responsibilities.

**Design/Background/Key Points:** The design of the session will be as follows:
1) present strategic intent and principles of Sport Wales Institute  
2) Summary of 3 environments that 3 different sport psychologists are working within  
3) Depending on the number of attendees, split the room so that there are at least 3 groups, each reflecting on one sport each:
   - Understanding context  
   - How would you identify psychological need  
   - What interventions may you consider  
   - What would be the barriers  
   - What would success look like  
4) Each group to feedback their discussions
5) Each presenter to provide insight into what the work they are currently doing, and what they are intending on doing in the future

**Methods/Conclusions:** Through the use of facilitation, group feedback, questioning and reflection, we will explore the discussions that each group has participated in.

**Results/Conclusions:** Participants will get an insight into:
- how a Home Country Institute is operating
- an insight into 3 case studies
- time to explore and reflect on how they would understand context and deliver within that

**Conclusions:** The conclusions that will be drawn will be how to apply theory to practice and what the applied implications are working within the strategic intent of a Home Country Institute.

Ref: 3978 Experimental & Applied Poster Presentation
Topic: Performance Psychology

‘You’ve got to put the pieces of the puzzle together’: A composite vignette of expertise at the Isle of Man Tourist Trophy (TT)
*Richard Sille, Liverpool John Moores University*

**Objectives:** The acquisition of expertise is the result of complex interactions among biological, psychological, and sociological constraints (Singer & Janelle, 1999). The aim of this study was to extend understanding of expertise acquisition in sport by investigating the experiences of elite competitors at the Isle of Man TT.

**Design:** Narrative inquiry was employed to better understand expertise at Isle of Man TT.

**Methods:** Nine male athletes, all elite TT riders with over 80 TT wins between them, were purposively sampled. Four participants took part in semi-structured interviews which were transcribed verbatim. For the remaining five participants, their autobiographies were used as additional primary data. Data were analysed using holistic-content analysis and findings are presented as a composite vignette.

**Results:** Five narrative types were identified, roughly aligned to temporal career stages: “you have to start really young: early specialization”, “Dad was instrumental: mentoring”, “lap after lap after lap after lap: deliberate practice”, “concentration, focus and learning to relax: rider experience”, and “knowing when to push: situational intelligence”.

**Conclusions:** This study advances knowledge of expertise in sport by exploring the experiences of elite competitors at Isle of Man TT. The knowledge generated could help stakeholders to improve safety by providing an expanded and more comprehensive mentoring program for young and less experienced riders.
Innovative methods to sharing, learning and knowledge exchange in sport & exercise psychology: a case study approach

Leeds Beckett University

Purpose: The aims of the DSEP Northern Applied Hub’s “Talking Psych Podcast” were to interview a wide scope of people; disseminate their experiences; and showcase the importance of Sport & Exercise Psychology to Lay and Academic Audiences.

Background: Contemporary research places a significance on dissemination due to several reasons: academics struggle to speak the consumers’ language; some issues can be answered with what is already known; and with the rise of the internet, anyone can post anything. Thus, our challenge as scientist-practitioners is to create informative and trusted sources of information. The DSEP Northern Applied Hub has created an innovative platform for Knowledge Exchange; which allows sportspeople to share experiences through Podcasting. In this presentation, we intend to share our reflections; whilst providing and seeking recommendations to how we can exchange knowledge in various domains.

Methods: An idiosyncratic need for single case studies exists to better understand the value gained from exploring how individuals construct and interact with their world. Through sharing our experience, we can explore the innovative approach to dissemination ‘through the eyes’ of those who have engaged with the podcast.

Conclusions: It is important to appreciate multiple ways of ‘knowing’. Academics sometimes dismiss the knowledge of coaches, due to a lack of scientific evidence. This not only causes researchers to lose credibility with practitioners but blinds them to ideas practitioners may have. Key recommendations from this case-study include; engaging in Pracademia, being creative in disseminating findings and being patient and persistent in sharing work amongst various populations.

Developing decision-making expertise in trainee sport and exercise psychologists: Supervisor perspectives

Michelle Smith¹, Dr Hayley E McEwan¹, Dr David Tod², Dr Amanda Martindale³
¹University of the West of Scotland, ²Liverpool John Moores University, ³University of Edinburgh

Objectives: We examined how UK sport and exercise psychology supervisors developed decision-making expertise in trainee sport and exercise psychologists (TSEPs) during their 2-year training qualification.
**Design:** Cross-sectional, qualitative design.

**Method:** Participants were 6 UK sport and exercise psychology supervisors (male, n = 6) who supported TSEPs on the British Psychological Society Qualification in Sport and Exercise Psychology (QSEP; Stage 2). Participants were enrolled on the Register of Applied Psychology Practice Supervisors (RAPPS) at the time of interview. Interviews were transcribed verbatim and a reflexive thematic analysis applied based on a decision-making framework.

**Results:** Supervisors encouraged self-discovery in TSEPs, which developed analytical reasoning. Person-centred approaches were particularly accommodating to the development of analytical reasoning. For example, allowing TSEPs to discover their own solutions to client difficulties through a supportive, empowering supervisory relationship. Essentially, participants were helping TSEPs to develop a cognitive representation of how the selected approach may be applied in their own client consultations.

**Conclusion:** The development of analytical reasoning prepared TSEPs to make decisions at both the programme and intervention level of practice where they explored different options that could be applied to client cases. This model of supervision that mirrors a person-centred model of therapy could also prepare TSEPs for making decisions in an ill-structured and dynamic environment (e.g., at a session level) that is typical of applied sport psychology practice.

**Ref:** 3615 Experimental & Applied Oral Presentation

**Topic:** Performance Psychology

**Key stakeholders perceptions of sport psychology consultancy in professional UK Rugby League**

*Emily Stout, Martin Eubank*

*Liverpool John Moore’s University*

**Objectives:** Since its professionalisation in 1996, UK rugby league has shown itself to be a highly progressive sport, with its embrace of video technology, franchising and sports science. However, there have traditionally been very few roles for sport psychologists. In order to elucidate this under-utilisation of the service, the present study aimed to explore key stakeholders perceptions of Sport Psychology Consultancy (SPC) in professional UK rugby league.

**Design:** A qualitative approach was used in order to garner a rich/detailed picture of stakeholder perceptions.

**Method:** 3 coaches, 3 CEO’s and 2 player welfare managers (all male, aged 37 - 58) working at a professional UK rugby league club were interviewed (one-to-one, semi-structured format). A thematic analysis of participants’ accounts was conducted.

**Results:** Four overarching themes were identified; the importance of sport psychology, barriers to SPC entry, challenges for SPC’s and desired practitioner characteristics. Cited
barriers to the entry of SPC's were finance, low relative value of the service and stigma/players' reluctance to disclose performance-related concerns. Identified challenges for SPC's were informal recruitment practices and prevalence of unqualified practitioners. Possessing good relational skills/understanding the culture of the sport were cited as important abilities for SPC's.

**Findings:** The findings suggest that; a) bodies responsible for the training of SPC's in the UK should do more to promote the profession in sports where sport psychology does not have a long history or recognised tradition; b) to survive and 'thrive' in elite/professional sport, SPC's must develop both relational and cultural competencies in addition to theoretical knowledge.

Ref: 3996 Experimental & Applied Poster Presentation
**Topic:** Performance Psychology

**Analysis of choking-related factors, including laterality, across sports categories**
*Alex Stoyel, Laura Boubert*
*University Of Westminster*

**Objectives/Purpose/Background:** This study explored the relationship between laterality and choking in sports. Based on neurological research and established anti-choking interventions, it was predicted that left-handers would choke less than right-handers. It was also hypothesised that those with greater expertise would choke less.

**Design/Background/Key Points:** This was a cross-sectional, quantitative study.

**Methods/Conclusions:** 116 participants completed an online survey which recorded demographics, sport-related information, laterality, reinvestment, trait anxiety and competitive state anxiety. Participants competed in 28 different sports and 48 of them described themselves as being currently or historically elite in their sport.

**Results/Conclusions:** Non-parametric analysis revealed that left-handers scored significantly higher on the Rehearsal subscale of Reinvestment (X2(2, 116)=6.298, p=.0430). Current and historically elite sportspeople showed greater sporting Self-Confidence than non-elite participants (X2(2, 116)=6.925, p=.031), but current elite athletes scored higher on overall Reinvestment (U=1182.00, n1=76 n2=40, p=.049) plus Rehearsal and Cognitive Failure subscales. Other determinants of expertise, including years of experience and level of competition, suggest that choking increases initially with time and competitive standard before decreasing at the highest levels. Females and younger athletes scored higher on multiple choking-related factors. Choking-related scores did not vary significantly between categories of sports.

**Conclusions:** This study was pioneering in analysing a wide range of sports and its ability to show the relationship between laterality and choking. It furthers previous findings regarding the impact of experience on choking-related factors. This study allows choking interventions
to be more tailored to individual sportspeople, and provides a foundation for future research. It was limited by its sample size.

Ref: 3682 Experimental & Applied Oral Presentation
Topic: Mental Health and Wellbeing

Risk factors of disordered eating in athletes
Hannah Stoyel¹, Lucy Serpell¹, Vaithhey Shanmuganathan-Felton², Caroline Meyer³
¹University College London, ²Roehampton University, ³University of Warwick

Objectives: The objective of this project was to look at the risk factors of disordered eating in athletes by adapting and applying a theoretical model from Petrie and colleagues (2007, 2011, 2012). In response to previous methodological concerns, the present study tested a previously-proposed theoretical model and explored the utility of a newly formed model within an athletic population and investigated this new model's application across gender, age, and sport type to explain disordered eating.

Design: The design was cross-sectional.

Methods: 1017 athletes completed a battery of online questionnaires related to social pressures, internalisation, body dissatisfaction, negative affect, perfectionism, restriction, and bulimia. Structural Equation Modelling using AMOS was employed to analyse the utility of the measurement and structural models.

Results: The original theoretical model failed to achieve acceptable goodness of fit ($\chi^2(20,1017)=1708.390; p<.001; CFI=.51; GFI=.84; NFI=.50$. Removal of non-significant pathways, and addition of perfectionism and social media pressure led to a model achieving a parsimonious goodness of fit ($\chi^2(24, 1017)=235.932; p<.001; CFI=.88; GFI=.95; NFI=.87$. Multigroup invariance tests revealed the newly proposed model was invariant across groups.

Conclusion: This study showed that formation of disordered eating does not develop as theoretically suggested: namely it does not occur due to sport pressures experienced by athletes. It also revealed that disorder eating development does vary across gender, competition level, sport type, and age, something that needs to be taken into account when considering prevention and treatment of disordered eating in athletes. This study is limited by its cross-sectional nature rather than longitudinal design.
‘To get through you’ve got to be a certain type of animal’: Mental toughness development and evaluation in Elite Academy Football

Alice Stratford, Martin Eubank, Martin Littlewood, Lewis Charnock
Liverpool John Moores University

Objective: As the world of high-level sport becomes ever more elite, Mental Toughness (MT) grows in value in achievement contexts. Within professional football environments, MT is prominent in development programmes across training academies. As a result, the purpose of this research was to explore the impact and control the culture of an elite football club academy has on the development and evaluation of MT.

Design: A cross-sectional, qualitative design allowed for a culturally informed examination of mental toughness to be conducted.

Methods: Eight, full-time staff members were individually interviewed to gather an understanding of MT in relation to the academy culture. Following each interview, the audio recordings were transcribed verbatim and analysed using Thematic Content Analysis.

Results: The findings were split into two general dimensions; Development of MT and Evaluation of MT. Within development of MT, four higher order themes were outlined; Strategies used by the Coach to Develop MT(a), Environment Related Factors(b), Coach Related Factors(c), and Age Related Factors(d). Analysis of codes relating to the evaluation of MT produced only one higher order theme titled; Evaluation of MT.

Conclusions: This research is one of very few papers to investigate MT with regard to culture and cultural perceptions, and details a comprehensive insight into development and evaluation of MT within an elite football academy. While MT was acknowledged as a crucial psychological concept for players, participants discussed uncertainty in the best methods to develop and evaluate MT through the different age groups, suggesting further research is needed on evaluating MT.

A truly congruent trainee sport and exercise psychologist or a methodological clone?

Gillian. E. Strathearn, Glasgow Caledonian University

Objectives/Purpose/Background: Researchers have suggested the theoretical orientation chosen by sport psychologists should be underpinned by their core beliefs and values. Yet, how does it feel to ‘go against’ the dominant methodological approach in the field? The purpose of this case study is to explore the authors incongruence and detail the impact engaging in self-reflection had on identifying her internal conflict as a trainee sport and exercise psychology practitioner.
Design/Background/Key Points: This case study documents the authors ongoing struggle with authenticity when required to work within a cognitive-behavioural (CBT) framework during Stage 2 of a taught doctorate programme in part fulfilment of the qualification to become a Sport and Exercise Psychologist.

Methods/Conclusions: A reflexive approach was adopted to explore the authors core beliefs and values when required to work in a way which contradicted her personal experiences, thoughts, emotions and preferences. In spite of the incongruence experienced, the process of reflective practice allowed the author to manage internal tensions to maximise her personal and professional development.

Results/Conclusions: Despite a multitude of calls for practitioners to offer real-world feelings of discomfort, reflective accounts of practice are lacking. Surely in the 21st century, we as practitioners, should feel comfortable to participate in the very practice we encourage our clients to engage in? By demonstrating vulnerability and admitting challenges faced when establishing my philosophy of practice as a trainee, it is hoped the benefit of being a truly congruent practitioner and not just a methodological clone, are acknowledged.

Ref: 3636 Experimental & Applied Poster Presentation
Topic: Exercise and Physical Activity

Investigating the effects of goal types on performance, autonomy, and intentions to repeat a walking session in healthy adults
Christian Swann¹, Matthew Schweickle², Greg Peoples², Scott Goddard¹, Stewart Vella²
¹Southern Cross University, ²University of Wollongong

Objectives: Recent studies have identified the need to critically re-examine goal-setting practice in physical activity promotion. This study aimed to investigate the effects of goal types on performance, autonomy, and intentions to engage in similar activity in future, within a walking session.

Design: Repeated measures design (mixed model).

Methods: 85 healthy adults (Mage = 48.21; BMI = 25.66) were randomly assigned to a control condition or one of four goal conditions: SMART, do-your-best (DYB), as-far-as-possible (AFAP), or open goals. They then completed a baseline and two manipulated attempts of a six-minute walking test. Outcomes were distance walked, the autonomy subscale of the Basic Needs Satisfaction in Sport Scale (adapted), intentions to repeat the session, and intentions to engage in a program based on the same goal type. Data were analysed via repeated-measures and one-way ANCOVAs.

Results: There was no significant difference in distance walked between the four goal groups, all of which walked significantly further than the control group. SMART goals led to significantly lower autonomy than AFAP goals. Open goals led to the highest intentions to repeat the session and engage in a program based on that goal type, while SMART goals were also significantly higher in these variables than the control.
**Conclusions:** These results indicate that more open-ended goals may lead to greater autonomy than SMART goals, while still achieving equivalent increases in physical activity. While SMART goals also led to high intentions to repeat the activity, open-ended goals may have more adaptive psychological effects during the activity.

**Ref:** 3638 Review/ Theoretical & Practice Oral Presentation
**Topic:** Exercise and Physical Activity

**Reconsidering goal-setting for exercise and physical activity: A goal-setting theory perspective and exploration of alternatives**

*Christian Swann¹, Simon Rosenbaum², Alex Lawrence¹, Desmond McEwan³, Stewart Vella⁴, Panteleimon Ekkekakis⁵*

¹Southern Cross University, ²University of New South Wales, ³University of Bath, ⁴University of Wollongong, ⁵Iowa State University

**Purpose:** This paper aims to critically examine current practice in goal-setting in exercise and physical activity from the perspective of goal-setting theory, and to explore possible alternatives to consider in future.

**Background:** Goal-setting is one of the most commonly used strategies to increase exercise and physical activity. Recently, however, questions have been raised over current practice. These critiques stem from Locke and Latham’s goal-setting theory as well as emerging empirical evidence, including meta-analyses. Specific issues raised include a lack of consideration of essential moderators in goal-setting theory, including task complexity, and subsequent misunderstanding/misapplication of specific, challenging goals in such contexts.

**Methods:** This paper will review core literature in goal-setting theory since 1990, as well as empirical studies examining alternative goal types in settings relevant to physical activity and exercise. Such alternatives include ‘vague’ and open-ended goals which are supported by promising initial evidence. Literature from goal-setting in rehabilitation is also examined as an example of how the field may progress in the next 5 to 10 years.

**Results:** From a goal-setting theory perspective, current practice is problematic and focused mainly towards individuals who are already active, by not considering important moderators and distinctions between appropriate goal types. Related fields (e.g., rehabilitation) have critically re-examined such practice, and various theoretical and empirically-informed alternatives have been proposed, tested, and implemented - providing a way forward in this field.

**Conclusions:** This paper concludes by discussing future avenues for research and practice in goal-setting for exercise and physical activity promotion.
Exploring the relationship between social identity and fear of failure in young athletes in team sports

Clara Swedlund, Christopher Spray
Loughborough University

Objectives: to examine the relationship between team social identity and fear of failure in youth athletes, by testing the following hypotheses:
(H0) There will be no relationship between youth athlete's social identity and fear of failure.
(H1) Coaches who satisfy their athletes basic psychological needs for autonomy, competence and relatedness have teams with a stronger sense of social identity.
(H2) Coaches who satisfy their athletes basic psychological needs and behave in ways that promote affiliation, but not blame or criticism, have athletes who display overall lower levels of fear of failure.
(H3) Strength of social identity is negatively associated fear of failure (correlation and regression).
(H4) Strength of social identity will moderate the relationship between perceived coaching behaviours and fear of failure in youth athletes.

Design: this is a cross-sectional study which makes use of a questionnaire with validated psychometric tools. This design was adopted given that these constructs have not been investigated in relation to one another previously.

Methods: Youth sports teams in Eastern Scotland and East Midlands have been invited via email to take part in this research project. Participants have completed a 10-minute self-report questionnaire, containing: demographic questions; Social Identity in Sports Scale; Performance Failure Appraisal Inventory; Perceptions of Coaches Interpersonal Behaviour Questionnaire; and the 9-item Basic Need Satisfaction in Relationships Scale. Data will be analysed using regression analyses and Structural Equation Modelling.

Results/Conclusions: this paper is based on a master’s (MSc) project which has not yet been completed. Thus, analysis is ongoing.

Gaining perspective: A scoping review on depression research in athletes

Richard Tahtinen¹, Robert Morris¹, David Tod¹, Fleur-Michelle Hope²
¹Liverpool John Moores University, ²Together Trust, Cheadle, Cheshire

Purpose: To scope the literature on self-reported depression symptoms in athletes.

Background: As the evidence base on athlete depression is rapidly growing, a scoping review may be a timely way of illustrating the research landscape, its gaps, and potential future directions.
**Methods:** We focused on research that assessed self-reported depressive symptoms in athletes and adopted a scoping review methodology to capture a broad view of the research scene. We included 132 studies through the following databases; PSYCHINFO, PUBMED, Web of Science, Academic Search Complete, OpenDissertations, CINAHL Plus with Full Text, Education Research Complete, ERIC, MEDLINE, SPORTDiscus with Full Text, science direct, and publishers databases, Opengrey, and Google Scholar.

**Results:** Most studies were cross-sectional designs (70%), published in 2011 or later (70%), and conducted in the United States (49%). Of the 29 different self-report measures identified, the Center for Epidemiologic Studies Depression Scale (CES-D) was most frequently utilised (23.5%). Most studies explored levels of depression in current athletes (83%) in comparison to non-athletes, and/or across demographic (e.g. gender) and sport-related factors (e.g. level or sport type) (41%). Twenty-six percent of studies focused specifically on concussion, injury and/or pain (26%). Only 26% of the studies measured trait level characteristics (e.g. perfectionism/identity) in relation to depression symptoms.

**Conclusions:** While much focus has been on risk factors and group differences, there seems to be a lack of theoretically guided prospective studies, especially in terms of individual level factors that could potentially explain group differences and hence be targeted in treatment and prevention.

**Ref:** 3993 Review/Theoretical & Practice Poster Presentation

**Topic:** Other – Any applied practice or research that does not fit within the other themes

**To what extent do athlete leaders impact team psychological safety in an elite women’s rugby union club**

*Gillian Thomas¹, Stewart Cotterill²*

¹Harlequins RFC, ²AECC University College

**Objectives:** The objectives of the research study were to investigate whether perceptions of team psychological safety (TPS) can be influenced by athlete leadership within an elite women’s rugby union club. TPS is defined as a ‘a shared belief held by members of a team that the team environment is safe for interpersonal risk taking’ and is important for overcoming the potentially negative risks of high cohesion.

**Design:** A mixed methods approach was used, combining questionnaire data, semi-structured interviews and focus group interviews.

**Methods:** Participants were 23 elite female rugby players from a rugby union club in England, with 14 also volunteering to participate in the follow-up interviews and focus groups. All participants completed the Team Psychological Safety Scale. Follow-up interviews focused on participant experiences of leadership and TPS. Those individuals identified as athlete leaders in the team were also asked to complete the Big 5 Inventory and take part in a focus group interview around their leadership behaviours and their perceived impact on TPS. A thematic analysis was used to analyse the interview data.
**Results:** The thematic analysis of the data highlighted five overarching themes including: leadership qualities, making mistakes, feedback, accountability and cohesion.

**Conclusion:** Athlete leadership was highlighted in the study to both assist and also inhibit the development of TPS. Results suggest that practical leadership tools can be employed by athlete leaders to aid with developing TPS. Finally, as TPS is a new construct within sport, future research needs to be conducted to develop the literature further.

**Ref:** 3691 Experimental & Applied Oral Presentation  
**Topic:** Performance Psychology  

**Effective parent-child interactions before, during and after tennis competitions**  
*Sam Thrower¹, Chris Harwood², Magnus Hamann², Elizabeth Stokoe²*  
¹University of Roehampton, ²Loughborough University

**Objectives/Purpose/Background:** The purpose of the current study was to examine the naturally occurring parent-child interactions which occur before, during, and after tennis competitions.

**Design/Background/Key Points:** Although considerable academic attention has focused on parent-child interactions before, during, and after competitions in youth sport (see Harwood et al., 2019), there has been an overreliance on cross-sectional and retrospective interview-based designs. As such, there is a need to more closely examine how interaction is coordinated, and talk is generated, within parent-child dyads in order to generate more precise and detailed practical recommendations.

**Methods/Conclusions:** Audio and visual data was collected with 12 parent-child dyads resulting in over 35 hours of parent-child interactions. Data was transcribed using the Jefferson (2004) system for capturing the production, pace, and organisation of social interaction, as well as the Mondada (2014) system for capturing embodied practices such as gaze and gestures. Conversation analysis was used to identify the composite actions - and their design and sequential organisation - that comprised these encounters (see Sidnell & Stivers, 2013).

**Results/Conclusions:** Analyses highlight how parents drive pre- and post-match interactions, by producing initiating actions (e.g., questions, requests) that varied in effectiveness in mobilising a response from the child. In particular, findings suggest that giving an advice through a story generally produced aligned and productive responses and sequences of interaction, whereas giving direct advice were often resisted by child recipients.

**Conclusions:** The current study provides unique and precise insights regarding effective and less effective parent-child communicative practices. We will discuss the implications of these findings for future sport parent education interventions.
The impact of emotional intelligence on anxiety levels among South African female field-hockey players
Nicola Tinkler¹, Ankebé Kruger¹, Julius Jooste²
¹North West University, Potchefstroom, South Africa, ²University of Northumbria

Objective: Emotional awareness and regulation are often associated with improved performance in sport. This study aimed to identify differences in emotional intelligence (EI) and anxiety scores between South African female university and national level field hockey players. The impact of EI on players’ anxiety levels was also investigated.

Design: A cross-sectional self-report design with a convenience sample was used.

Method: Sixty-one female field-hockey players, divided into a university (n=35) and a national team (26) completed the Emotional Intelligence Scale and the Competitive State Anxiety Inventory-2 during the preseason of the 2016/2017 competitive season’s baseline assessment.

Results: An independent t-test showed significant differences in the emotional intelligence and anxiety constructs between players from the two levels of participation. A significant negative correlation existed between players’ ability to manage their own emotions and levels of cognitive anxiety. The managing of others’ emotions correlated positively with players’ self-confidence scores. Furthermore, the utilisation of emotions and managing others’ emotions were shown to be significant predictors of cognitive anxiety. The utilisation of emotions and managing of their own emotions also showed predictive utility on players’ somatic anxiety and self-confidence levels respectively.

Conclusions: The potential practical value of these findings is that EI intervention programs focussing on effective utilization of emotions and the management of one’s own and others’ emotions can support field hockey players in controlling their levels of cognitive and somatic anxiety while improving their levels of self-confidence, all essentials psychological aspects necessary to obtain optimal performance in sport.

What they say: Batswana boxers’ actual self-talk during shadow boxing and punch bag activities
Kagiso Tlhabano, David Tod, Zoe Knowles, Martin Eubank
Liverpool John Moores University

Objectives: The study aimed to explore Batswana boxers’ self-talk use during training, in real time: compare findings with interview findings, and inform a skill-targeted self-talk intervention.
Design: The think aloud (TA) method was used to capture athletes’ self-talk during boxing non-contact training activities.

Method: Batswana boxers were recruited in boxing clubs in Gaborone, Botswana (N = 12). Inclusion criteria entailed participation in the preceding interview study. Twenty-three were analysed using thematic analysis (Clarke & Braune, 2013), and study credibility was assessed using eight criteria for excellent qualitative research (Tracy, 2010).

Findings: Batswana boxers used self-talk that served instructional and motivational functions, with sub-themes thereof reported. Participants’ self-talk was characterised in distinct structure and person of the self-talk form. The study found prevalence differences between self-talk functions and characteristics themes and sub-themes. Moreover, the study found similarities and differences in theme and sub-themes levels between think aloud and interviews self-talk. Generally, the findings boost existing retrospective self-talk literature and harmonise with aspects of self-talk models (Hardy, Oliver, & Tod, 2009; Van Rallte, Vincent, & Brewer, 2016).

Conclusion: Prevalence differences between themes and sub-themes, and across settings in real time may provide insights on individual athletes’ self-talk strategy needs, and skills strengths and weakness informing intervention. Similarities and differences between actual and reported self-talk suggest the potential for think aloud and interviews to play complimentary roles as self-talk use needs analysis tools. Further research is paramount, especially given the study limitations, which include sample size.

Ref: 3989 Experimental & Applied Poster Presentation
Topic: Performance Psychology

An exploration of reported self-talk use among Batswana boxing athletes
Kagiso Tlhabano, David Tod, Zoe Knowles, Martin Eubank
Liverpool John Moores University

Objectives/Purpose/Background: The present study aimed to explore Batswana boxing athletes’ self-talk awareness, beliefs and uses with intent to inform a tailored skill-targeted self-talk intervention.

Design/Background/Key Points: Qualitative method employing semi-structured interviews was used to collect data.

Methods/Conclusions: Seventeen Batswana boxing athletes (14 males and 3 females) took part in the study. Participants were recruited from boxing clubs in Gaborone, Botswana through gatekeepers. Inclusion criteria entailed: (1) at least 12 months boxing experience, (2) at least one competitive experience, (3) being Motswana, and (4) playing the sport in Botswana. Seventeen data sets were analysed using the thematic analysis approach (Clarke & Braune, 2013). Study credibility was assessed using eight criteria for excellent qualitative research (Tracy, 2010).
**Results/Conclusions:** The analysis derived primary and secondary themes relating to self-talk utilisation, awareness, belief, context, content, influences and uses. Batswana boxing athletes reported using self-talk although some were unaware of use prior to the interviews. Moreover, athletes reported belief in their self-talk and using self-talk across training and competition settings. The study also identified factors seemingly influential to boxers self-talk use. Reported self-talk characteristics varied in structure and person.

**Conclusions:** Findings of the study have methodological, practical, theoretical, and research implications. Possible value of semi-structured interviews as a self-talk needs assessment tool for purposes of formulating tailored skill-targeted self-talk interventions is noted. Moreover, findings suggest possible use of self-talk among Batswana boxers and perceived value thereof. Results also support aspects of current self-talk models, highlighting theoretical implications for said models. There is need to further boxers actual self-talk use.

**Ref:** 4002 Experimental & Applied Poster Presentation  
**Topic:** Performance Psychology

**What they actually say: Exploring Batswana boxers’ actual self-talk**

*Kagiso Tlhabano, David Tod, Matin Eubank, Zoe Knowles*  
*Liverpool John Moores University*

**Objectives/Purpose/Background:** The study aimed to investigate Batswana boxers’ actual self-talk use during training, compare the findings with the preceding interview findings, and inform a skill-targeted self-talk intervention.

**Design/Background/Key Points:** The study employed a realist perspective. Qualitative approach was used, specifically, the think aloud (TA) method was used to capture athletes’ self-talk during noncontact training activities.

**Methods/Conclusions:** Twelve Batswana boxers recruited in boxing clubs in Gaborone, Botswana took part in the study (N = 12). Inclusion criteria entailed participation in the preceding interview study. The study used the realist approach. Clarke and Braune’s (2013) thematic analysis phases were used to analyse 12 data sets. Credibility was assessed using eight criteria for excellent qualitative research (Tracy, 2010).

**Results/Conclusions:** Batswana boxers used self-talk serving instructional and motivational functions. Participants’ self-talk was characterised by distinct structures and persons of the self-talk. The study found prevalence differences between self-talk functions and characteristics themes and sub-themes. Moreover, the study found similarities and differences in theme and sub-themes levels between think aloud and interviews self-talk. Generally, the findings boost existing retrospective self-talk literature and harmonise with aspects of self-talk models (Hardy, Oliver, & Tod, 2009; Van Rallte, Vincent, & Brewer, 2016).

**Conclusions:** Prevalence differences between themes and sub-themes may provide insights on individual athletes’ self-talk use needs and skills strengths, and weaknesses. Similarities and differences between think aloud and interview results suggest the likely complimentary roles of the two methods as self-talk use needs analysis tools. Further research is
paramount given the study limitations. Findings have implications for method, theory, practice and research.

Ref: Keynote

**Psychology without psychologists: The goal of professional training**  
*David Tod, Liverpool John Moores University*

Since sport and exercise psychology’s inception in the late 19th century, researchers have focused largely on specific factors involved in service delivery, such as identifying helpful interventions and athlete attributes associated with enhanced performance. Only within the last 25 years have researchers have paid meaningful attention to the sport and exercise psychologist, with early studies investigating stakeholders’ perceptions of effective practitioners’ characteristics. Even more recently, researchers have started exploring practitioner development, such as studying developmental journeys, supervision, and learning experiences. Much less is known about practitioners, than the tools interventions they employ. The imbalance in knowledge may lead to an overemphasis in sport psychologist training on the tools consultants have, at the expense of their development as practitioners. This hypothesis may explain research revealing ways that graduates believe their training has not prepared them for their careers. In recognising the knowledge gap, several investigators around the globe are pursuing research avenues that may underpin high quality professional development and training. In this keynote, I will overview current insights emerging from practitioner development research and offer implications for trainees, educators, supervisors, and consultants. More specifically, I will address two questions. First, how to people change as they gain experience as practitioners? Second, what are the implications for practitioner training and development?

Ref: 3592 Experimental & Applied Oral Presentation  
**Topic: Performance Psychology**

**A tale of two consultancies: practitioners’ narratives of collaborating with athletes**  
*David Tod1, James Hardy2, David Lavallee3, Martin Eubank1, Noora Ronkainen4*  
1Liverpool John Moores University, 2Bangor University, 3Abertay University, 4University of Jyväskylä

**Objectives:** We examined experienced practitioners’ stories about two of their athlete consultancies. Specifically, we analysed the narrative structure of their accounts and we explored their descriptions of the active ingredients involved in the consultancies. Active ingredients are factors allowing people to benefit from helping relationships.

**Design:** Qualitative interviews grounded in a narrative approach. We used narrative analysis because we explored participant’s stories of specific athlete consultancies.

**Method:** Consultants (9 females and 12 males, aged 27-46) with at least four years of professional experience shared with us two athlete consultancies during open-ended
narrative interviews. Both structural and thematic narrative analysis guided data analysis. We drew on literary theory and counselling psychology research to interpret the findings.

**Results:** The structure of the participants’ stories reflected a collaborative expert problem-solving narrative. They described working as experts in concert with athletes who needed help in solving their problems. Narrative themes adding substance to the plot included the influence of relationships, client allegiance, and active athlete engagement towards service delivery outcomes. Another narrative theme involved a constrained freedom in which the context influenced service delivery outcomes.

**Conclusions:** Results echoed Rogers’ narrative about service delivery and paralleled counselling research revealing factors leading to client outcomes. Findings also had a self-promotional motif surrounding practitioners’ service delivery accounts. Applied implications include the value of gaining self-awareness, developing authenticity, and becoming immersed in a sport organization’s culture.

**Ref:** 3593 Symposia  
**Topic:** Performance Psychology

**(S) Sport and exercise psychologist training: The professional development and training network**  
*David Tod, Martin Eubank*  
*Liverpool John Moores University*

Collaborative relationships drive applied sport psychology. Skilled practitioners build collaborative relationships by connecting with athletes, offering useful answers to athletes’ questions, and helping athletes cope with their challenges. To form collaborative relationships, practitioners need strong communication skills, relevant psychological knowledge, and practical techniques they can share with athletes. Ideally, practitioners draw on research that helps them acquire the skills, knowledge, and strategies allowing them to assist athletes. Researchers have explored skilled practitioners’ qualities, knowledge, and interventions. In comparison, however, investigators have seldom examined how to train practitioners or how these individuals build expertise. This knowledge deficit stops educators and supervisors from optimizing training and supervision, potentially compromising trainee and practitioner growth. A lack of research on training and supervision also hinders professional bodies who are developing or reviewing education and accreditation routes to ensure quality in the profession. To assist the sport psychology community’s efforts to thrive and enhance its credibility, practitioners have to be well trained and mentored. Access to research about training and supervision, which is currently lacking, will let stakeholders make evidence-based decisions that promote the field as a credible applied science. This symposium documents a UK network furnishing the discipline with knowledge to help inform training and supervision practices. In the symposium, presenters will (a) propose a theoretical framework generated from the literature, (b) detail findings from a longitudinal study of UK professional doctorate students, (c) present results from pilot work on the supervision relationship, and (d) offer recommendations for education, training, and supervision.
Paper 1: A review of systematic reviews: Sport and exercise psychologists’ training and development across time
Nick Wadsworth¹, Robbie Anderson²
¹University of Bolton, ²Liverpool John Moores University

Purpose: The purpose of this presentation is to assess and critically discuss the evidence underpinning sport psychologist training, by combining the findings of three systematic reviews. Background: The development of applied sport psychology practitioners is complex and multifaceted. Despite over 30 years of research, we have a limited understanding of how this literature informs us about the training and development of sport psychology practitioners.

Methods: The first review used a meta-study method to synthesise research on the characteristics of effective sport psychology practitioners. The second review used thematic content analysis to explore the reflective accounts of applied sport psychology practitioners. The third review used a meta-study method to review empirical evidence on supervision and training.

Conclusions: Results highlight that the development of applied sport psychology practitioners is reliant on five interconnected areas: (a) who we are, (b) what we know, (c) what we do, (d) what we experience, and (e) how we develop. Key findings include: (a) the contribution practitioner characteristics’ make to the formation of working relationships; (b) the need for sport psychologists to develop coherent philosophies of practice, congruent with their worldviews and work settings; and (c) the observation that sport psychologists develop expertise in similar ways to other helping professionals (e.g., counsellors). These findings can inform educators, supervisors, trainees, and applied practitioners about how to assist sport psychologists in developing optimally, contributing towards the progression of the discipline as a whole.

Paper 2: Investigating the professional development of sport and exercise psychology professional doctorate students
Freddie Turner, David Tod, Martin Eubank
Liverpool John Moores University

Objectives: As sport psychology students progress through professional training, they transition through phases of development, with the greatest amount of development appearing to occur during Stage 2 training. Drawing on a counsellor development framework, the purpose of this study was to accrue first-hand accounts of how sport and exercise psychology professional doctorate students believe they developed their applied consulting abilities in relation to their knowledge, skills, and character.
**Design:** We utilised a qualitative design using thematic content analysis to identify shared characteristics in their journeys towards competency.

**Method:** Eleven sport and exercise psychology professional doctorate students (4 females and 7 males, aged 24-42) shared reflections on their professional development experiences during semi-structured interviews. The analytical procedure involved concurrent deductive and inductive thematic content analysis to move between theoretical explanations and participants’ accounts.

**Results:** Participants’ accounts reflected factors that underlie the process of developing competency, such as (a) engaging in experiential learning, (b) establishing a professional practise philosophy and practitioner identity, (c) experiencing ambivalence surrounding service delivery, and (d) undertaking peer reflection. Participants’ development was mediated by both personal and professional experiences, the universities they attended and their varied work responsibilities.

**Conclusions:** Results echo the counsellor development literature suggesting that practitioner development intensifies during Stage 2 training, and extend the growing base of literature examining practitioner development across the applied sport and exercise psychologist’s career lifespan. Understanding the shared journey towards competency highlights a coherent set of developmental requirements that the sport psychology literature, educators, supervisors, prospective students, and accreditation routes may benefit from identifying.

**Ref:** 3627 Part of Symposia
**Topic:** Performance Psychology

**Paper 3: Exploring supervisory relationships in sport and exercise and health psychology and their impact on practitioner development**

*Charlotte Chandler¹, Hayley McEwan²*

¹University of Derby, ²University of the West of Scotland

**Objectives:** The research aimed to explore participant’s perceptions of supervisory relationships within Sport and Exercise Psychology and Health Psychology and their influence on practitioner development. Understanding supervisory practice across a range of psychology sub-disciplines could be beneficial for the ongoing development of Sport and Exercise Psychology education and training.

**Design:** The study adopted a cross-sectional, qualitative design which involved semi-structured interviews with supervisors and supervisees.

**Methods:** A sample of 6 participants representing 3 (sport = 2, health = 1) supervisor-supervisee pairings engaged in a one-to-one semi-structured interview regarding their experiences of supervision. Supervisees were enrolled on either a British Psychological Society (BPS) accredited Professional Doctorate or the BPS Stage 2 qualification. Themes
were developed using inductive thematic analysis to interpret participants’ perspectives on supervision.

**Results:** Data highlighted the flexible and personalised approach the supervisors take to supervision, which was largely informed by their personal philosophy and experience. Supervisees praised the supervisory relationship as key to their development and were able to recognise how their supervisor’s approach was adapted to their needs. Supervisors emphasised that supervision is about both the personal and professional development of the supervisee and created the conditions for supervisees’ growth by focusing on the self (e.g., self-awareness, emotion management).

**Conclusions:** The study has provided valuable insight into supervisory processes and the flexibility with which a supervisor may choose to approach their support for a supervisee. Given supervisory approaches appear to be driven more so by philosophy and personal experience than supervisor training, the symposium will explore potential recommendations for the development of supervisor training.

**Ref:** 3641 Part of Symposia  
**Topic:** Other – Any applied practice or research that does not fit within the other themes

**Paper 4: Drawing conclusions: An emergent position statement and training and development recommendations**  
*Moira Lafferty¹, Martin Eubank²*  
¹University of Chester, ²Liverpool John Moores University

**Background:** The previous symposia presentations discussed a theoretical framework that highlighted critical aspects of neophyte practitioner development and training, and importantly, the various intra- and inter-personal related factors that influence that, such as culture, context, emergent practitioner self and the supervisory relationship. The second presentation identified core aspects of trainee sport psychologists’ development over time and the critical factors from a personal perspective that impact on training. Finally, the results of the pilot study identified critical aspects of the supervisory relationship, and how this changes over time to allow supervisee growth and development. The current presentation will discuss the findings of the longitudinal and pilot studies with respect to the theoretical framework, in order to offer recommendations for education, training and supervision of applied sport psychologists, and describe an emerging training and development position statement.

**Method:** Using matrix analysis methodology, the experiences of trainee practitioners will be mapped to the key themes of culture and context, supervisory relationship and change, applied practice experience, social influences and practitioner growth that form the central components of the theoretical framework.

**Results:** The presentation will focus on the core emergent issues from this analysis that give rise to practitioner development.
Conclusion: Through critical analysis of the results, we will discuss whether the lived experiences of trainee sport and exercise psychologists map to the theoretical training framework and explore how this knowledge should inform future training and supervision guidelines, at both the micro and macro levels of the sport psychologist’s development.

Ref: 3532 Experimental & Applied Oral Presentation
Topic: Mental Health and Wellbeing

'The road is long with many a winding turn' – Exploring critical moments and identity within elite level UK professional football
Alan Tonge, Liverpool John Moores University

Objective: In recent years, a large amount of research has investigated transitions in sport and has primarily focused on end points such as retirement, or athletes leaving their sport prematurely (Lavallee & Wylleman, 2000; Brown & Potrac, 2009). The objective of this paper is to investigate issues which occur on a more frequent basis (i.e. critical moments).

Design: The current study expands on current research by using an interpretative, qualitative methodology to explore experiences that athletes face in their day to day existence, rather than at particular time periods.

Methods: In-depth phenomenological interviews were used to assess critical moments within the journeys of six elite level UK ex-professional footballers. The purposeful sample (Marshall, 1996) included players who had played for professional football clubs at what was considered to be an elite level (i.e. they had all played in the highest tier of English professional football).

Results: Analysis of the interview data suggested that as players made their journey through the professional game, more frequent issues appearing had an impact on their identity. These issues included deselection, loans, short term and long term injuries, dealing with negative media and challenging relationships with team mates, coaches and managers. These more frequent experiences brought about feelings such as isolation, anxiety, fear, loss, desperation, anger and even humiliation.

Conclusion: Findings from the study could be used to inform sport psychologists to support professional football players more effectively through having a greater understanding about issues that players experience and pass through within their journey.
(S) One case, five approaches: The application of psychotherapeutic approaches in sport psychology

Martin Turner¹, Gillian Aspin¹, Faye Didymus², Peter Olusoga³, Andrew Wood¹
¹Staffordshire University, ²Leeds Beckett University, ³Sheffield Hallam University, ⁴Manchester Metropolitan University

This symposium brings together five practitioners from five dominant psychotherapeutic approaches to address one specific hypothetical case. The case concerns a 25-year-old professional soccer athlete who has been deselected by their coach. Sport and exercise psychology practitioners tasked with service provision within any environment have an opportunity to decide which framework(s) they draw upon to inform their applied work. However, the similarities and differences between psychotherapeutic approaches are under-represented in current literature. Therefore, this paper introduces and hypothetically applies five dominant psychotherapeutic approaches to the case. Four different cognitive behavioural approaches are outlined, namely rational emotive behaviour therapy (REBT; Ellis, 1957), cognitive therapy (CT; Beck, 1976), schema therapy (ST; Young, Klosko, & Weishaar, 2003), and acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 2012). Each practitioner outlines their approach and proceeds to address the case by covering assessment, intervention and evaluation strategies that are specific to their approach. Finally, motivational interviewing (MI; Miller & Rollnick, 2013) is outlined and proposed as a complementary, integrative approach, alongside the four previous cognitive behavioural approaches to enhance the intervention process.

Ref: 3652 Part of Symposia
Topic: Mental Health and Wellbeing

Paper 1: Rational emotive behaviour therapy (REBT)

Martin Turner, Manchester Metropolitan University

There has been a recent upsurge in literature examining REBT within sport and exercise settings (e.g., Turner & Bennett, 2018). The extant literature provides general guidance on how REBT can be applied with athletes (e.g., Turner, 2019), yet details of how REBT can be applied to specific cases are scarce. Developed by psychotherapist Dr. Albert Ellis in the 1950s (Ellis, 1957), REBT is considered to be the first CBT, and is different from other therapies most notably due to its emphasis on rational (flexible, non-extreme, & logical) and irrational (rigid, extreme, & illogical) beliefs as the key mediators between a situation (or inferences about a situation) and affective and behavioural reactivity (Ellis & Ellis, 2018). In line with REBT, the current case is addressed using a GABCDE framework to guide assessment, cognitive restructuring (disputation), and intervention evaluation. Specifically, and emotional and behavioural experiences of the client are assessed (C), followed by the inference made about the event (A). Irrational beliefs (iBs) are uncovered in relation to client goals (G), rigorously disputed (D), and replaced with rational alternatives (E). The core intervention includes GABC education, collaborative, systematic, and practical disputation,
and rational reinforcement using the athlete rational resilience credo (ARRC). Intervention cessation is also discussed. Key details are covered such as intervention length, markers of change, and professional practice considerations.

**Ref: 3653 Part of Symposia**  
**Topic: Mental Health and Wellbeing**

**Paper 2: Cognitive therapy (CT)**  
*Faye Didymus, Leeds Beckett University*

Cognitive Therapy (CT; Beck, 1967) is a structured, short-term, present-orientated approach that focuses on changing cognition to bring about subsequent helpful changes in emotions and behaviors (Beck, Rush, Shaw, & Emery, 1979). To achieve such change, CT incorporates a variety of techniques that assume that negative thoughts are the result of underlying schemas and dysfunctional beliefs (see e.g., Beck, 2011). Originally developed as a treatment for depression (Rush, Beck, Kovacs, & Hollon, 1977) and stemming from a psychiatric standpoint, aspects of CT have been applied by sport psychology practitioners. Rather than being a philosophical modality like REBT, CT is a more concrete approach that focuses on the therapeutic alliance to develop, amongst other things, unconditional other acceptance (i.e., the understanding that others can accept us unconditionally). In this section of the talk, CT is used to address the case, specifically addressing thoughts and inferences about self and the coach and future expectancies with the goal of subsequently addressing feelings of anger and embarrassment. This is with a view to addressing Jordan’s behavior and meaningful pursuit of personal soccer related goals. Assessment, intervention, and evaluation phases are detailed. Key applied considerations are made for the use of CT in sport.

**Ref: 3654 Part of Symposia**  
**Topic: Mental Health and Wellbeing**

**Paper 3: Acceptance and commitment therapy (ACT)**  
*Peter Olugoga, Sheffield Hallam University*

Traditional Cognitive Behavioural approaches in sport psychology seek to challenge ‘negative’ or unhelpful thoughts, emotions, and bodily sensations that are typically considered a hindrance to athletic performance. Instead of equipping athletes with strategies to rid themselves of these unwanted experiences in pursuit of an 'ideal' performance state (i.e., optimal anxiety, high in confidence, relaxed, etc.), Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) seeks to change the relationships that individuals have with those internal experiences. The goal is to develop psychological flexibility (i.e., the ability to stay in contact with present moment experience and, depending on the situation, persist or change behaviour in pursuit of chosen values). This is achieved by using acceptance and mindfulness processes, and commitment and behavioural activation processes. In this specific, hypothetical case, our client’s (Jordan) presenting issues will be reformulated in ACT terms, with reference to the six core processes that underpin ACT (i.e., flexible attention to the present moment, values, committed action, self-as-context, cognitive defusion, and acceptance; Hayes et al., 2012). The goals of an ACT
intervention will be discussed in reference to the case, along with specific strategies for highlighting the unworkability of Jordan’s potential attempts to control or reduce unwanted experiences. In addition, examples of exercises that might be used to work on the six core-processes contributing to Jordan’s psychological flexibility will be considered, alongside the practitioner’s role in developing the therapeutic relationship in ACT.

Ref: 3655 Part of Symposia
Topic: Mental Health and Wellbeing

Paper 4: Schema therapy (ST)
Gillian Aspin, Staffordshire University

The goal of Schema Therapy (ST) is to identify and modify maladaptive thinking, feeling, and behaving. However, ST has a larger emphasis on past experiences and emotions, and change happens through understanding the development of schemas, and the healing of core pain. It is more accurate to say that ST reflects an integrated model of therapy that combines aspects of CBTs, Gestalt experiential therapy, and psychoanalytic thinking. The aim is for clients to become aware of the schema being triggered and insert thoughts between emotion and action to take control of their weakened schemas. ST and the schemas it proposes are relevant to athletes (Turner, Aspin, & Gillman, 2019), and given the dearth of ST-related work in sport, this section represents an important step in introducing how ST could be applied with athletes. The assessment of schemas using questionnaire and psychometrics are covered, as well as the main intervention tasks designed to weaken the influence of the client’s schemas. ST is proposed to help the client to change deeply held beliefs by accessing and changing the emotions felt in childhood when the schemas formed. Imagery and chair work are used to develop more healthy views and emotions and to encourage doubt that the schemas are factual. Key applied issues are discussed in the section as well.

Ref: 3656 Part of Symposia
Topic: Mental Health and Wellbeing

Paper 5: Motivational interviewing (MI)
Andrew Wood, Staffordshire University

Each of the aforementioned therapeutic approaches to sport psychology (i.e., REBT, CT, ST, & ACT) charts distinct assessment, intervention, and evaluative processes to support the case. In addition, each approach points to the significance of collaboration (e.g., CT & REBT), therapeutic alliance (e.g., ACT) and intervention commitment (e.g., ST) for effective practice with Jordan. Previous research has noted instances of clients in clinical settings failing to engage with psychological therapies (e.g., Moloney & Kelly, 2004), and illustrates athletes who are introduced to cognitive behavioural strategies but fail to practice or apply them consistently (e.g., Mack, Breckon, O’Halloran, & Butt, 2018). It is from this that motivational interviewing (MI; Miller & Rollnick, 2013) is proposed as an integrative framework to actively increase athlete readiness for action-orientated therapy, enhance the practitioner-athlete relationship; complementing the previously presented psychotherapeutic approaches. MI is a client-centered approach that strengthens the client’s intrinsic
motivation for change through the exploration and resolution of ambivalence (Miller & Rollnick, 2002). We suggest that the philosophy, microskills, structure and tools of MI make it an efficacious adjunct to action-orientated approaches to build and maintain a working practitioner-athlete relationship, to ensure the client is an active participant within the intervention process, and to navigate hurdles as they arise in the treatment process. Such assimilative and theoretical integrations are becoming better understood in other branches of psychology, and sport psychology practice could benefit from exploring this further.

Ref: 3958 Experimental & Applied Poster Presentation
Topic: Mental Health and Wellbeing

Perceptions of initiation activities amongst sports players, ex-sport players and non-sport players
Caroline Wakefield¹, Moira Lafferty², Tia Prior¹
¹Liverpool Hope University, ²University of Chester

Objectives: Initiation ceremonies are prevalent amongst athletes joining university sport teams. Such activities are often associated with negative physical and psychological outcomes which have both immediate and longer-term consequences. This study explored the perceived acceptability, severity and harmfulness of scenario-based initiation activities.

Design: A cross-sectional questionnaire-based design was employed to elicit opinions on initiations.

Methods: 261 participants were shown four initiation scenarios in a counterbalanced manner. These ranged from asking ‘freshers’ to collect napkins (scenario 1) through to a semi-naked run through a public place (scenario 4). Participants rated the activities on a five-point Likert scale for acceptability, severity and harmfulness and results were analysed depending on participants’ sporting experience.

Results: Results revealed that perception of harm increased across the scenarios with current sport players reporting the lowest perceived harm (p<.05). Acceptability decreased across scenarios, with ex-sport players scoring significantly lower than sports players for scenario 3 and 4. Perceived severity increased across scenarios with ex-sport players scoring higher than current players for scenario 1 and 3 (p<.05).

Conclusion: Results indicate variation in perceived acceptability, severity and harmfulness. Specifically, a tipping point was apparent at which behaviours become less acceptable, aligned with the severity and harmfulness. Regardless of sport type, current sport players viewed initiation activities as more acceptable, less severe and less harmful than former or non-players. Therefore, immersion in the culture and context may give a distorted view of the activities and education programmes should be targeted primarily at this group, considering the longer-term impact of such activities.
Motivated implicit beliefs in physical education: Is there a self-serving bias?

Victoria Warburton¹, Christopher Spray²
¹UEA, ²Loughborough University

Objectives: To ascertain whether motivated implicit theories can be identified among students in PE and to test for a self-serving bias. Evidence on the malleability of personality characteristics suggests that individuals shape their implicit beliefs in the service of self-enhancement. This proposition has not been tested within the physical domain.

Design: Two cross-sectional studies.

Methods: Data from 318 male and female students (11 to 14 years old) was collected using validated measures of implicit theories of their perceived strengths and weaknesses in PE, direction of expected future change, and desire for change. Study 1 assessed these variables in relation to the self, while study 2 assessed them in relation to other students of their own age.

Results: One-way repeated measures MANOVAs revealed a statistically significant effect for implicit theory (F(1,160) = 3.76, p=.054, ηp²= .023) and desire for change (F(1,160) = 4.73, p=.031, ηp²= .029). Students in PE perceived greater stability in their own weaknesses (M=2.85) than their strengths (M=2.69) and a greater desire to change their own strengths (M=3.40) than their weaknesses (M=3.25). However, for other children of the same age there was no statistically significant multivariate effect for trait desirability on the dependent variables (F(3,154) = 2.42, p=.069, ηp²= .045).

Conclusions: There is evidence of a motivational, self-serving effect since students held different implicit theories of their own strengths and weaknesses but similar implicit theories for other children their age. Counter to previous personality research, students in PE viewed their strengths as more malleable than their weaknesses.

Perfectionism and attitudes towards sport psychology and mental health support in athletes

Dean Watson, Professor Andy Hill, Dr Daniel Madigan
York St John University

Objectives: Athletes’ attitudes towards help seeking contributes to whether they are likely to ask for support when needed. While initial research outside of sport has found perfectionism to be related to more negative attitudes towards help-seeking, no studies have examined this relationship in sport. As such, the current study aimed to examine whether perfectionism predicted attitudes towards both sport psychology support and mental health support in athletes.
**Design:** A cross-sectional survey design was used so to establish relationships between variables, and examine collective and unique predictive ability of different dimensions of perfectionism.

**Methods:** One hundred and sixty-six, Recreational (N = 34) Regional (N = 43) National (N = 61) and International (N = 28) student-athletes (M age = 21.3, SD = 3.2) completed measures of trait perfectionism (strivings and concerns) and measures of attitudes towards sport psychology support and mental health support.

**Results:** Multiple regression analysis revealed that perfectionistic concerns significantly predicted higher psychological closedness to mental health support (β = .33, p < .001), increased stigma towards both mental health (β = .51, p < .001), and sport psychology support (β = .52, p < .001). Perfectionistic strivings significantly predicted higher confidence in sport psychology support (β = .25, p < .01).

**Conclusions:** Athletes’ who have higher levels of perfectionistic concerns are less likely to seek out support for both performance and mental health issues. Therefore, more attention needs to be paid to how sport psychologists manage maladaptive perfectionism in athletes’ at all levels.

Ref: 3611 Review/ Theoretical & Practice Oral Presentation
Topic: Mental Health and Wellbeing

**Mountain biking is an effective adjunctive therapeutic intervention for young adults with a mental health diagnosis**

*Tony Westbury¹, Niamh Allum², Graeme McLean³*

¹Edinburgh Napier University, ²NHS Borders, ³Developing Mountain Biking in Scotland

**Objectives/Purpose/Background:** This study was designed to evaluate the impact of mountain biking in a rural environment on a clinical population of young adults, with a range of mental health diagnoses.

**Design/Background/Key Points:** The study was designed as a longitudinal mixed methods study. However delays in the NHS ethical approval process resulted in data collection being limited to retrospection.

**Methods/Conclusions:** Participants were recruited from an Occupational Therapy (OT) led resource centre in the Scottish Borders. The group numbered 11, with 4 self-identifying as male and 7 female, with an age range of 19 to 28 years. The six – two hour mountain biking sessions were conducted weekly and were led by qualified ride leaders and trained volunteers. In additional two health care professionals accompanied the group. Data was collected in a focus group attended by participants at the conclusion of the programme.

**Results/Conclusions:** Adherence to the programme was significantly higher than for any other OT programme run by the Centre. Thematic analysis revealed clear therapeutic impact in the context of the Dialectic Behavioural Therapy approach which guides centre practice. Skills related to mindfulness, distress tolerance, interpersonal effectiveness and emotional
regulation were identified by group members as being more effectively applied on the trail than in the centre. Four of the participants were subsequently discharged.

**Conclusions:** Despite the limitations in terms of design and sample, the study indicates that mountain biking as ‘green’ exercise has the potential to provide adjunctive support to conventional therapeutic interventions. Further studies are planned, particularly focussing on participants with more complex mental health challenges.

Ref: 3977 Experimental & Applied Poster Presentation
Topic: Exercise and Physical Activity

The effects of a brief psychoeducational intervention on the tolerance to exercise related discomfort
Anthony Whalley, Moira Lafferty, Lee Hulbert-Williams, Nick Hulbert-Williams
University of Chester

**Objectives:** Acceptance and Commitment Therapy (ACT) incorporates a number of discrete, interrelated processes such as defusion (awareness of thoughts and experiences), self-as-context (observing the process of defusion), and personal values. Experimental research has shown that tolerance to pain, induced by cold water, may be increased using (ACT) techniques. The present study extends existing research and hypothesised that the inclusion and exclusion of values-based statements (known as appetitive augmental statements) in scripted intervention protocols would influence tolerance to discomfort associated with exercise

**Design:** Experimental 3(group) by 2(pre-post) repeated measures intervention.

**Methods:** Participants (n=50) engaged in two tasks designed to produce physical and psychological discomfort. Task A was a cold pressor hand test, task B the Chester Step Test. After a pre-test phase participants were randomly assigned to a scripted multiple exemplar training intervention condition (the presence or absence of values-based statements) or control condition. Post-intervention, task A and B were repeated and between-group task duration and reported levels of discomfort were compared.

**Results:** Participants trained in the presence of values-based statements significantly increased exercise duration over time (F(2,47) = 4.410, p = .018, partial η2 = .158) compared to those trained with absence of values-based statements and the control group. Participants in the cold water task showed a similar pattern, but the results were not significant.

**Conclusions:** The application of values-based statements increased tolerance of exercise discomfort. Results suggested that such statements may be an important factor when designing interventions to overcome psychological barriers associated with physical activity.
An examination of the gaze behaviours of e-sports athletes in Rainbow Six Siege

Benjamin Wilson, University of Chichester

Objectives: The objectives of this study were to establish if there is a relationship between performance and gaze behaviours in Rainbow Six Siege, and to discover if certain stimuli were more or less conducive to performance. It was hypothesised that more successful participants would have a higher percentage of time looking at relevant stimuli.

Design: an exploratory design was taken for this study. Long-term Working Memory theory was used as the basis of this study, hypothesising that more experienced participants would use previous experience to inform their gaze behaviour. E-sports was used due to its rising popularity, professionalism and lack of research.

Methods: eight participants were recruited through email. Participants played 5 rounds of Rainbow Six Siege, whilst wearing a SMIETG head mounted eye tracker. This captured the footage of the game and the point of gaze of the participant. The footage was then analysed frame-by-frame, with length and subject of fixations recorded.

Results: positive correlations were found between both percentage and duration relevant fixations and performance. A positive correlation were found between weapon sights and performance, and negative correlations were found between enemies and performance, as well as shot direction markers and performance.

Conclusions: this study recommends that players of Rainbow Six Siege aim down the sights when in combat, as this was correlated with performance. This study presents several ways to train this, including in game tutorials, and several avenues of future research, including use of audio cues. One key limitation was the lack of elite participants.

Reflections on the implementation of a community sport based mental health awareness programme in prison

David Woods, Gavin Breslin
Ulster University

Objectives/Purpose/Background: Innovative mental health awareness programmes are required in response to a high prevalence of mental ill-health in the prison population and a tendency for prisoners not to engage with traditional programmes. Subsequently, State of Mind Sport (SOMS), a successful community based mental health awareness programme was trialled within a prison in England. Our objective was to present a reflective account of...
the methodological challenges of evaluating SOMS within a notoriously difficult research setting and make recommendations for others researching mental health in prisons.

**Design/Background/Key Points:** Guided by Rolfe’s model of reflective practice (2001) we conducted a critical reflection on the design and implementation process of the mixed-methods SOMS evaluation (comprising pre/post questionnaires with a control and intervention group and two focus groups with adult male prisoners).

**Method:** Rolfe (2001) suggests practitioners thoroughly engage with three reflective stages: 1) What? (description); 2) So what? (theory and knowledge); 3) Now what? (suggested actions/recommendations). Our reflections identified five critical steps within the SOMS research design and implementation process: 1) Research Co-production; 2) Prison Intermediaries and Research Control; 3) Qualitative methods implementation; 4) Quantitative methods implementation; 5) Impression Management.

**Conclusions:** As sport and exercise researchers, we have a unique opportunity to play our part in improving the health and wellbeing of the most vulnerable in our society, through applying our knowledge, skills and abilities to challenging research projects. Securing privileged access to the unique prison environment demands that multiple stakeholders are engaged from the beginning, including prisoners if possible, to maximise research feasibility. High trust relationships with prison intermediaries are required, and research methods and measures adapted to account for the contextual challenges faced in prisons. Prison researchers must also consider how they will respond to the unique interactions and scenarios presented during implementation and how these affective, cognitive and/or behavioural responses may impact their research.