ISESA 2026 Conference
Book of Abstracts

21st and 22nd May 2026
Technological University of the Shannon, Midlands-Midwest Athlone Campus

Day 1 – Thursday 21st May 2026

9:40 Keynote

Friendly Fire: How Bad Science Contributes to the Spread of Health Misinformation

Dr Nick Tiller (The Lundquist Institute at Harbor–UCLA Medical Center)
Location: *Building 1: Main Building*

Science is the most powerful tool we have for revealing objective "truths" about the natural world. As humanity grapples with existential threats, not least soaring obesity rates and vaccine hesitancy, science is our first and last hope for a solution. But what happens when the systems we've come to trust become part of the problem? In this talk, Dr. Nick Tiller (Research Associate, The Lundquist Institute at Harbor–UCLA) explores the shady side of scientific research and exposes the spectrum of questionable practices, from honest procedural missteps to conflicts of interest, questionable research practices, and financially incentivized data fabrication. Drawing on real-world examples from medicine, kinesiology, and nutrition, Tiller shows how flawed studies and sensationalized findings accumulate error as they travel from the lab bench to the lay public—through press releases, media headlines, and social media influencers. He situates bad science at the top of this "garbage-in, garbage-out" model. Tiller concludes with a call to action, proposing an agenda for practical reform and challenging us to confront inconvenient truths to root out malpractice and safeguard scientific integrity for future generations.

10:25 Parallel Sessions

Symposium One: Forward Momentum: Advancing physical activity, exercise and sport during pregnancy and postpartum across the island of Ireland

Chaired by: *Maria Faulkner (ATU)*

Lizzy Deery (Ulster University); Catherine George (RCSI); Grainne Donnelly (Cardiff Metropolitan University)

Location: *Building 7: Engineering*

Integrative Statement: This symposium brings together researchers from across the island of Ireland who are working collaboratively to advance novel, impactful research in physical activity, exercise and sport during pregnancy and postpartum. This session presents researchers recent findings in this area through three lenses: maternal lived experiences, healthcare provider support, and exercise professionals' insights into Irish service provision. The session will showcase emerging evidence that examines pregnant and postpartum populations beliefs, behaviours, and lived experiences of physical activity across these life stages. Findings from healthcare professionals' perspectives will also highlight factors that influence their support of physical activity and exercise during maternity care. Presentations will explore exercise professionals' perspectives into physical activity provision and participation during pregnancy and postpartum across Ireland. Speakers will highlight biopsychosocial determinants influencing engagement in physical activity, with particular attention to the complex factors shaping return to activity and

sport postpartum, including physical recovery, psychological readiness, social support, and health system influences. By integrating findings from researchers across the island of Ireland, this symposium will provide a comprehensive overview of current evidence, while identifying key gaps and opportunities for collaboration. The session will explore our intentional structured approach to developing this growing body of research and foster dialogue on translating emerging evidence into practice, policy, and service innovation. Through shared expertise, the symposium aims to strengthen approaches that support pregnant and postpartum populations across the island.

Presentation One: Physical Activity during Pregnancy and Postpartum: Emerging evidence from women and healthcare professionals across the island of Ireland

Dr. Liz Deery (Ulster University)

Introduction: Physical activity and exercise during pregnancy and postpartum offer many health benefits for mother and child, yet participation remains low and support from healthcare professionals is inconsistent. Research has begun to address this gap by exploring pregnant and postpartum populations' and healthcare professionals' experiences and perceptions of physical activity support and guidance during pregnancy. **Methods:** This presentation synthesises evidence from three distinct studies. An all-island survey of 430 pregnant and postpartum women assessed their knowledge of physical activity guidelines and experiences of receiving physical activity guidance and support during pregnancy. A qualitative study explored postpartum women's return to exercise, identifying motivators, barriers, and supports. Ongoing work examines women's beliefs and behaviours during these stages and healthcare professionals' knowledge, attitudes, and experiences. **Results:** Most women did not accurately state physical activity guidelines, and guidance from healthcare professionals, although respondents' preference, was limited and inconsistent. Emerging data highlight a critical gap in beliefs and behaviours regarding physical activity in pregnancy. Healthcare professionals while confident in providing guidance during pregnancy, lacked awareness of pregnancy physical activity guidelines. During postpartum, women experience identity transition and conflicting biopsychosocial factors, compounded by insufficient support. **Discussion:** Findings highlight systemic gaps in knowledge, guidance and support provision, reflecting the need for training, integrated maternity care pathways, and accessible, effective physical activity guidance and support that address biopsychosocial factors. **Conclusion:** Collectively, this work emphasises the importance of evidence-informed approaches to support pregnancy and postpartum physical activity, informing future research, clinical practice, and policy across the island of Ireland.

Presentation Two: From Evidence to Access: Evaluating physical activity programmes and provision for pregnant and postpartum populations in Ireland

Ms Catherine George (Royal College of Surgeons Ireland)

Introduction: Physical activity during pregnancy and postpartum offers significant benefits, including reduced complications, improved mental health, and long-term health outcomes for mother and child. Despite this, reported physical activity knowledge and participation during pregnancy and postpartum across the island of Ireland remains low. Reported barriers include limited facilities, financial and social constraints, societal stigma, and inconsistent healthcare guidance. This evaluation identifies and assesses physical activity programmes for pregnant and postpartum populations across three Local Sport Partnerships in Ireland, focusing on accessibility,

sustainability, and inclusivity. **Methods:** Survey and interview data are being collected from Local Sports Partnership stakeholders, including staff, programme facilitators, and participants. The RE-AIM PRISM framework was utilised to guide the selection of implementation strategies and to assess the influence of contextual factors on program delivery and multi-level adoption. Evaluation findings map existing provision, review programme content, and explore stakeholder experiences to identify facilitators, barriers, and areas for improvement. Results: Initial mapping shows no pregnancy specific provision across reviewed regions. Postpartum provision is confined to Galway and Leitrim, with Donegal having none. Ongoing evaluation will provide detailed insights on programme reach, engagement, sustainability, and participant experience. **Discussion:** Preliminary findings highlight regional inequities and gaps in provision. Lessons learned will inform strategies to improve accessibility, inclusivity, and sustainability, aligning with international best practices. **Conclusion:** This evaluation will guide the development of pregnancy and postpartum evidence-informed physical activity programmes, enhancing maternal well-being, reducing health disparities, and informing policy and service delivery across Ireland.

Presentation Three: Pelvic Health, Perceptions and Performance: Navigating postpartum return to physical activity and sport

Ms Gráinne Donnelly, (Cardiff Metropolitan University)

Introduction: Returning to physical activity and sport postpartum is influenced by a range of biopsychosocial factors including physical, physiological and psychological recovery and social perceptions. Myths around pelvic floor disorders, diastasis recti, and perceived risks can discourage participation, while social media platforms influence beliefs and behaviours. Evidence-based strategies are needed to support safe, confident engagement for postpartum populations. **Methods:** This presentation synthesises the development of postpartum return to running and rugby guidelines. Findings are incorporated from qualitative, quantitative, and social media analyses. Pelvic health, athlete experiences, perceived risks, biomechanical strategies, sport-specific return-to-sport, and the influence of social media content on women's physical activity participation are examined. **Results:** Findings highlight persistent misconceptions around postpartum physical activity and gaps in practical guidance for both recreational and elite sport postpartum populations. Pelvic floor interventions, including targeted exercise strategies and adjunctive products influence confidence, symptom experience and perceived ability. Analysis of social media content shows both helpful guidance and misleading information, shaping behaviours and beliefs around postpartum activity and sport participation. **Discussion:** These findings highlight the need for clear, accessible, inclusive and sport-specific postpartum guidance to dispel myths and support biopsychosocial readiness. Integrating evidence-based insights from recreational and elite sport participation can inform a safe and confident return to activity following childbirth. **Conclusion:** Practical, evidence-based strategies for individuals, clinicians and coaches are presented to improve pelvic health outcomes and support confident, enjoyable physical activity and sport participation postpartum.

10:25 Symposium Two: Optimising Talent Pathways: Where Stories and Statistics Align

Chaired by: *Áine MacNamara (DCU)*

Stephanie Brennan (DCU); Dean Clark (DCU); Amy Shelley (DCU)

Location: *Building 8: Mary Ward Centre*

Integrative Statement: Sport scientists, practitioners, and policymakers across sport navigate increasingly complex, data-rich systems where the ability to translate insight into impact has never been more critical. Across sport, everyday operational data, such as administrative records, stakeholder perceptions, selection histories, communication exchanges, and lived practitioner experiences, accumulate over time but can be underutilised to inform strategy and policy. This symposium presents three studies demonstrating how the systematic collection and interrogation of data and stakeholder knowledge can provide a powerful and accessible foundation for data-informed, practice-grounded decision-making in talent development. Underpinned by an engaged research agenda, all three studies were co-created with sport organisations who wanted to enhance their decision processes and strengthen evidence-informed practice through the systematic interrogation of data and information already embedded within sport organisations. The studies illustrate this proposition across community, national, and professional contexts. First, an examination of the Irish hockey talent pathway draws on stakeholder perceptions of the talent development environment to explore coherence, culture, and integration within a national talent development environment. Second, a critical realist inquiry into volunteer coaching in the IRFU draws upon focus groups and organisational insight to surface the often-un-hidden mechanisms sustaining community sport structures and to inform collaborative governing-body strategies. Third, an analysis of academy administrative and match appearance data from English PREM rugby union identifies distinct developmental archetypes, demonstrating how utilising existing data can reveal pathway diversity and organisational influence. As a whole, the studies demonstrate how data can illuminate and inform system coherence, contextual demands, and developmental variability. By integrating psychometric data, qualitative insight, and archival performance records, the symposium offers an accessible framework for exploiting everyday information to strengthen talent systems. Aiding the discussions, a guest practitioner will join discussions to offer their perspective of how such approaches can bridge research and applied decision-making, ensuring that data-informed innovation remains grounded in the realities of practice.

Presentation One: Inside the system: Stakeholder perspectives on talent development in Irish field hockey

Stephanie Brennan (DCU)

Introduction: Successful talent development environments (TDEs) are essential to sport systems. Hockey Ireland operates a multiprovincial talent pathway feeding into national age-group programmes, with players, parents, and coaches as key stakeholders. Previous research identifies features of effective TDEs, including coherent messaging, long-term development approaches, strong organisational culture, appropriate progression, and holistic support (Henriksen & Stambulova, 2023; Martindale et al., 2007). **Method:** Using the Talent Development Environment Questionnaire (TDEQ'S; Martindale, 2025), we investigated perceptions and experiences of

players, parents, and coaches within the Irish Hockey talent pathway. The aim was to evaluate holistic and generic processes associated with effective player development (Martindale et al., 2010). Comparing responses within and between stakeholder groups enabled the project to inform alignment of TDEs across Irish hockey. **Results:** Results indicated consistent pathway strengths and limitations, although experiences varied across groups. Individual differences emerged by geographic location, age, and development stage, with athletes demonstrating diverse needs and progression patterns depending on their context and position within the pathway. **Discussion:** Although the pathway is implemented nationally, findings highlighted the importance of recognising and supporting individual differences. Stakeholder experiences differed by context and development stage, suggesting that national structures may be most effective when flexibly adapted to local needs and personalised to optimise progression. **Conclusion:** Assessing the structure and functioning of the Hockey Ireland talent system provided insight into developmental processes and pathway outcomes (Collins et al., 2019). This understanding supported improved interactions, encouraging dialogue about the effectiveness and efficiency of TDEs across provinces (Taylor et al., 2022).

Presentation Two: Finding my tribe and losing my way: Exploring the lived experience of the volunteer community Rugby Union coach.

Dean Clarke (DCU)

Introduction: Volunteer coaches form the bedrock of community sport programmes, supporting health and activity agendas, talent identification, and modelling pro-social behaviours to broad player populations. Despite this significant contribution, research suggests this personal commitment remains a hidden dimension (Carroll, 2023) with volunteer coaches feeling undervalued and isolated to the detriment of their motivation and wellbeing (Cronin et al., 2023). **Methods:** This first phase of a critical realist review refined an a priori initial programme theory positing that competent voluntary coaching practice demands awareness of distinct contextual factors and similarly specialist skills - the resources and reasonings perspective (Mukumbang et al., 2022). An iterative process of research reading informed by responses from sixteen volunteer coaches within five purposively sampled focus groups developed content-mechanism-output configurations to be sense-checked in second phase data collection. **Results:** Initial findings support the tripartite conception of volunteer archetypes - the servant, the activator, and the serious careerist (Rochester et al., 2010), pointing to coaching contexts requiring the breadth of skills and role demands associated with performance sport, for example recruitment and succession planning. **Discussion:** This first phase inquiry highlights the precarious nature of volunteer supported sport structures with high levels of responsibility, and recruitment challenges, placing huge demands on individual pivotal coaches whose departure would represent a significant loss in contextual knowledge. Developing a micro-coaching approach with time limited roles may provide entry points that ameliorate recruitment challenges and narrow the range of stalwart coaches' responsibilities. **Conclusion:** Collaboration between a national governing body and its volunteer base appears to provide a valuable protection against attrition of coaches and player opportunities.

Presentation Three: Tortoises, hares, and falcons: An exploration of academy player pathway archetypes resulting in English Premiership Rugby

Amy Shelley (DCU)

Introduction: Talent systems aim to promote junior athletes to senior elite levels, yet growing evidence suggests multiple pathways to success. This study examined developmental trajectories of 407 male ex-academy rugby union players who progressed to the PREM via academy administrative and match appearance data. **Methods**: Player journeys were mapped based on timing of England Academy nomination and match appearances in Tier 2 and Tier 3 leagues prior to Premiership debut. Hierarchical and K-means cluster analyses grouped developmental trajectories according to stage inclusion and duration. Chi-squared analyses tested differences in academy organisation, club, playing position, and birth quartile across clusters. **Results:** Three progression archetypes emerged: Hares, Tortoises, and Falcons. Significant interactions were observed between archetype and playing position ($\chi^2(16) = 28.041$, $p = .031$), academy organisation ($\chi^2(26) = 54.346$, $p < .001$), and Premiership club ($\chi^2(24) = 41.466$, $p = .015$). Birth quartiles were not significantly associated with archetype ($\chi^2(6) = 9.772$, $p = .135$); however, a significant linear trend was observed ($\chi^2(1, N = 407) = 6.497$, $p = .011$). **Discussion**: Playing position and academy organisation were meaningfully linked to archetype, suggesting developmental context and positional demands shape pathways. The association with Premiership club may reflect differing selection strategies. Whilst relative age held non-significant interactions with clusters, relatively younger players were significantly less likely to be 'Hares', who were typified by early identification and swift progression. **Conclusion:** Findings highlight the importance of supporting developmental diversity in talent systems, and the need to consider how player characteristics and organisational contexts shape progression to elite performance.

10:25 Symposium Three: Where is the Science in Sports and Exercise Science?

Chaired by: *Massimiliano Ditroilo (UCD)*

Joe Warne (TU Dublin); Barry Gorman (TU Dublin); Ciaran O'Cathain (Maynooth University); Robin Healy (TUS Athlone)

Location: Building 1: Main Building

Integrative Statement: This symposium presents a critical overview of research practices in Sports and Exercise Science (SES), drawing on the growing body of meta-scientific evidence from the Sports Science Replication Centre and related initiatives. Despite increased awareness of research validity concerns across disciplines, SES continues to demonstrate structural weaknesses that threaten the credibility and cumulative value of its literature. These include small and unjustified sample sizes, vague and unfalsifiable hypothesis statements, limited transparency, low data-sharing rates, and insufficient statistical reporting. Replication evidence suggests that these issues are not trivial: only 28% of close replications were corroborated, with replication effect sizes regressing by approximately 75%, and average statistical power estimates as low as 11%. The symposium will first synthesise these systemic concerns and outline their implications for error control, effect size inflation, publication bias, and the erosion of stakeholder trust. We argue that without meaningful structural reform—across researchers, journals, peer reviewers, and funders—SES risks continued decline in replicability and scientific credibility. The second presentation will examine the problem of vague and untestable hypothesis statements. Poorly specified hypotheses expand researcher degrees of freedom, inflate analytical flexibility, and increase the likelihood of post-hoc rationalisation (e.g., HARKing). We will discuss how clearer confirmatory frameworks, limited dependent variables, and stronger alignment between theory

and statistical models can meaningfully constrain bias. The third presentation will focus on mandatory, reproducible sample size justification as a cornerstone of adequate error control. We will outline practical guidance for prospective power analysis, limitations of observed power, and journal-level enforcement strategies such as those recently in *Journal of Sports Sciences*. This symposium aims provides both diagnosis and direction in the form of working examples, moving from critique toward coordinated, actionable reform in SES research culture.

Presentation One: 6 Years of Meta-science in the SSRC: Where Are We Now?

Dr Joe Warne (Technological University Dublin)

Over the past six years, the Sports Science Replication Centre (SSRC) has undertaken a coordinated effort to directly examine the credibility of published research in Sports and Exercise Science (SES). Through close replications, large-scale z-curve analyses, and evaluations of reporting practices, the SSRC has generated one of the most comprehensive meta-scientific assessments of the field to date. The findings are concerning. Across 25 close replications, only 28% of studies were corroborated when considering both statistical significance and effect size compatibility. Replication effect sizes regressed by approximately 75% relative to the original findings, raising questions about effect inflation and publication bias. Complementary z-curve analyses of hundreds of SES papers estimate average statistical power at approximately 11%, a level incompatible with the high proportion of statistically significant findings reported in the literature. Beyond replication outcomes, the SSRC has documented widespread issues in research practice: small and unjustified sample sizes, vague or under-specified hypotheses, incomplete statistical reporting, low data and code sharing, and minimal uptake of pre-registration or Registered Reports. Collectively, these patterns suggest a research ecosystem that insufficiently protects against both Type I and Type II error, while simultaneously rewarding novelty and significance over robustness and transparency. This talk reflects on what these findings mean for the field. The concern is not isolated error, but systemic vulnerability. Without coordinated reform in how we design, justify, report, and evaluate research, SES risks continued erosion of credibility, cumulative knowledge, and stakeholder trust.

Presentation Two: Hypothesis Ambiguity and Testability in Sport and Exercise Science

Barry Gorman (Technological University Dublin)

While most meta-research has focused on the methodological issues within the Sport and Exercise Science (SES) field - that is low statistical power, significance bias, multiple testing - very little has focused on the actual hypotheses being tested. From our qualitative and quantitative review of 269 applied SES studies from 13 quartile one SES journals, researchers appear to state verbal hypotheses - poorly derived from theory - and contain vague: dependent variables, directionality and estimands. Vague hypotheses afford researchers analytical flexibility: they can test multiple dependent variables with multiple statistical tests. We specifically discovered that from 269 studies: the median number of dependent variables stated within the hypothesis was 3 [min: 1, max: 11], the median number of dependent variables tested was 13 [min: 1, max: 107], and the median number of statistical tests conducted was 64 [min: 3, max: 1299]. We worry that vague hypotheses and this multiplicity reduce the deductive clarity of scientific articles. That is, when hypothesis statements are vague and researchers conduct many statistical tests, the statistical mapping from hypothesis-to-study-design-to-analysis-to-reported results is incoherent and ultimately readers struggle to come to a dichotomous decision regarding the stated hypothesis.

This lack of clarity may cascade into practice, where clinicians and coaches are be left uncertain about which outcomes should guide rehabilitation progressions or programming decisions. Ultimately, unfalsifiable hypotheses appear to facilitate the majority of downstream methodological issues. Therefore, this presentation will aim to draw attention to these vague hypotheses and provide some small suggestions for improving the clarity of hypothesis statements.

Presentation Three: **Informative Sample Size Justification in Sport and Exercise Science**

Dr Ciaran O'Cathain (Maynooth University), Robin Healy (TUS Athlone)

Inadequate sample sizes remain one of the most persistent methodological weaknesses in Sports and Exercise Science (SES). With average statistical power estimates as low as 11%, the field routinely produces underpowered studies that can inflate effect sizes, undermine replication, and erode scientific credibility. Despite this, sample size justification, either doesn't occur, relies on poorly specified a priori power analyses or, worse, post-hoc observed power calculations that offer no meaningful error control. This presentation argues for a shift toward prospective, reproducible sample size justification that moves beyond the single point-estimate power analysis. We outline a framework of complementary approaches: sensitivity analyses across a range of plausible effect sizes; use of the lower bound of meta-analytic confidence intervals or smallest effect size of interest as a conservative effect size input; simulation-based estimation over a distribution of plausible effects; and Bayesian assurance, which estimates the overall probability of a successful study by accounting for uncertainty about the true effect size. Together, these methods better reflect uncertainty about true effect magnitudes. Practical guidance will be provided for implementing each approach, with an emphasis on transparency and reproducibility. We further discuss how journal-level enforcement strategies can embed these standards structurally, moving SES toward a culture of principled, pre-specified research design.

10:25 Workshop: Innovations in Para Sport Classification: A Data-Driven Approach

Alice Wainright (Paralympics Ireland) Niamh O'Brien (Paralympics Ireland)
Location: *Building 8: Mary Ward Building*

This presentation focuses on Paralympic Athletes, classification and how we have implemented data innovation to improve our understanding and future research. Paralympic classification is a sport-specific system designed to create fair competition by grouping athletes according to the functional impact of their impairment. The session will provide an overview of how this system works and present insights from a newly implemented data innovation initiative designed to enhance athlete support, streamline performance operations, and inform evidence-based practice within Paralympic sport.

11:40 Postgraduate Presentations and Parallel Workshop

See page 45 for postgraduate presentations abstract details

Coaching, PE and Sport Pedagogy	Physiology and Nutrition	Sport Psychology
Postgraduate Presentations	*Postgraduate Presentations*	*Postgraduate Presentations*
Location: Building 1: Main Building	**Location:** Building 7: Engineering	**Location:** Building 8: Mary Ward Centre

11:40 Workshop with HRIG

Presented By: *HRIG Ltd*
Location: Building 8: Mary Ward Centre Upstairs

HRIG LTD develops precision isometric hamstring assessment technology designed to support clinicians, therapists, and performance professionals in accurately measuring hamstring strength and imbalance. Our device delivers reliable, repeatable data to aid injury prevention, rehabilitation monitoring, and return-to-play decision-making. Built for clinical, research, and elite sport environments, HRIG combines biomechanical insight with user-friendly design to enhance objective muscle assessment. We are committed to improving outcomes, reducing injury risk, and advancing evidence-based hamstring evaluation worldwide.

12:25 Parallel Sessions

12:25 Panel Discussion – Sponsored by ARTI

From Acute Injury to Return to Performance: What Does Truly Integrated Care of the Multidisciplinary Team Look Like?

Chaired by: *Sinead O'Keefe (DCU)*

Ciara Losty (SETU Waterford); Neil Irwin (TUS Athlone); Ryan Alexander (DCU); Laurie Ryan (TUS Athlone)
Location: *Building 1: Main Building*

Proposition Statement: The modern injured athlete requires coordinated, multidisciplinary care that aligns medical, physiological, psychological, nutritional, and performance priorities. This panel will explore what truly integrated athlete management looks like across the full continuum of injury, from acute response and early-stage clinical decision-making to progressive rehabilitation, through to the return-to-performance phase. An athlete-centred multidisciplinary team enables faster, safer, and more individualised recovery by ensuring that each stage of rehabilitation is informed by complementary perspectives. Despite growing support for interdisciplinary teamwork, issues can arise where inconsistencies in communication, siloed practice, and differing performance pressures challenge the success of the multidisciplinary team. This discussion aims to address these issues by examining evidence-informed models of collaborative practice, practical multidisciplinary team structures that enhance athlete outcomes, and strategies for effective shared decision-making. The session will provide the Sport and Exercise Science community with real-world examples of successful interdisciplinary pathways across team and individual sports. By drawing on diverse expertise and perspectives, the panel will support practitioners, students, and researchers in understanding how genuine multidisciplinary collaboration can accelerate recovery, reduce reinjury risks, and ultimately enhance long-term athletic performance.

12:25 Oral Presentations

A systematic market analysis of quality assurance and evidence alignment of sports supplements available on the Irish market

Presenter: *Conor Carey (UCC)*
Location: *Building 8: Mary Ward Centre*

Authors: *Conor C. Carey[1], Morgan Lewis[1], Ciara Dermody[1], Felix Mackenzie[1], Orla Meaney[1], Elaine K. McCarthy[1,2]*

[1] School of Food and Nutritional Sciences, University College Cork, Ireland
[2] INFANT Research Centre, University College Cork, Ireland

Abstract:

Introduction: Supplement contamination risk and misalignment with evidence-based recommendations may compromise athlete safety and anti-doping compliance. This study analysed sports supplements available on the Irish market to determine the prevalence of third-party testing and alignment with the Australian Institute of Sport (AIS) Supplement Classification

Framework. **Methods:** Four search engines were searched in triplicate in November 2024 across three devices in incognito mode to minimise personalised results. Products marketed for sport and sold in powder, capsule, tablet, gel or liquid (<100 ml) form were included; micronutrient-only products were excluded. Data were extracted using automated web-scraping with manual verification. Products were cross-referenced against Informed Sport, Informed Choice and Informed Protein databases. AIS classification was assigned based on the lowest graded active ingredient. **Results:** A total of 26,121 products were identified, resulting in 5,256 included products following eligibility and duplicate screening. Amino acid supplements (23.7%), protein supplements (18.2%) and multi-ingredient pre-workouts (13.9%) were most prevalent. Thermogenic, lipolytic or diuretic products (4.4%) and hormonal or endocrine support products (5.7%) were common despite safety concerns. AIS classification identified 1,929 Grade A products (36.7%), while 45.2% were not classifiable. Only 250 products (4.8%) were Informed Sport certified and 92 products (1.7%) met combined AIS Grade A and third-party testing criteria. **Conclusion:** Fewer than 2% met combined evidence-based and contamination risk mitigation criteria. The high prevalence of poorly evidenced product categories and unclassified ingredients highlights a disconnect between market availability and evidence-based practice, with implications for health, performance, and anti-doping risk management.

The Prevalence and Predictors of Iron Deficiency Among Female Gaelic Games Players

Presenter: *Ní Fhlannagáin, N.*
Location: *Building 8: Mary Ward Centre*

Authors: *Ní Fhlannagáin, N.[1], Casburn, A.[1], Pap, L.[1]*

[1] Department of Sport, Exercise and Nutrition, Atlantic Technological University, Galway, Ireland

Abstract:

Introduction: Iron deficiency (ID) is the most common nutritional deficiency worldwide. It impairs aerobic and strength capacity, bone health, and immunity; however, its prevalence in Gaelic Games is unknown. **Methods:** This cross-sectional study examined the prevalence of ID in tier-3 female Gaelic Games players and explored genetic, dietary, menstrual, sweat, gastrointestinal, and training-related predictors of iron status. Rested, hydrated participants completed a screening questionnaire and provided venous blood samples for analysis of serum ferritin, haemoglobin, and transferrin saturation (Tsat). Athlete-specific diagnostic thresholds were applied. **Results:** All 44 athletes were rested and hydrated at testing. Overall, 38.6% were diagnosed with ID (25% stage 1; 13% stage 2), with no cases of stage 3 ID. The overall model was not statistically significant ($\chi^2 = 12.93$, $p = 0.166$), indicating the questionnaire did not reliably distinguish iron-sufficient from iron-deficient athletes. However, logistic regression showed hormonal contraceptive users were six times more likely to be iron sufficient ($p = 0.031$). Multiple linear regression demonstrated that Tsat, but not ferritin or haemoglobin, was negatively predicted by weekly training load ($p = 0.048$), suggesting functional iron availability may be more sensitive to training stress than traditional markers. **Conclusions:** A substantial burden of ID exists in female Gaelic Games players. Tsat and hormonal contraceptive use appear important considerations in athlete screening and support. Monitoring functional iron markers alongside menstrual and training profiles may improve early risk detection and performance management.

Human Skeletal Muscle Stem Cells Retain Life-Long Exercise-Induced Mitochondrial and Transcriptional Imprints

Presenter: *John Noone (UL)*
Location: *Building 8: Mary Ward Centre*

Authors: *Noone, J.[1,2], Yeo, R.X.[2], Pino, M.[2], Sun, Y.[3], Krassovskaia, P.[4], Zheng, D.[4], Jevtovic, F.[4], Stowe, C.L.[5], Emilson, S.S.[5], Ravussin, E.[6], Musi, N.[7], Huffman, K.[8], Bergman, B.[9], Walsh, M.[3], Goodpaster, B.H.[2], Houmard, J.[4], Sparks, L.M.[2]*

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[8] *Duke University School of Medicine, Durham, North Carolina, USA*
[9] *Anschutz Medical Campus, University of Colorado, Aurora, Colorado, USA*

Abstract:

Introduction: Exercise improves skeletal muscle mitochondrial energetics and metabolism, reducing metabolic disease risk. Human skeletal muscle stem cells (HSkMCs) contribute to muscle restructuring and serve as a novel model to study durable, exercise-induced cellular imprinting. While short-term exercise induces metabolic changes in HSkMCs, the effects of life-long exercise on epigenetic, transcriptional, and energetic programming remain unclear. **Methods:** Using the MoTrPAC framework, HSkMCs were isolated from life-long highly active endurance (HA-EE, n = 7) and resistance exercisers (HA-RE, n = 9), lean sedentary (LN-SED, n = 10), and sedentary individuals with obesity (OS-SED, n = 10). $CD56^+$ myoblasts were differentiated, and mitochondrial respiration was assessed via high-resolution respirometry under carbohydrate- and fatty acid-supported conditions, with or without a 24-h free fatty acid (FFA) challenge. Transcriptomic and epigenomic profiling was performed, and respiration was normalized to mitochondrial and cell content. **Results:** FFA treatment enhanced complex I, complex I+II, and uncoupled respiration in HA-RE vs. LN-SED when normalized to mitochondrial content. Protein-normalized respiration was elevated in OS-SED HSkMCs, reflecting higher cell content but lower mitochondrial efficiency. Transcriptomic differences were modest, yet pathway analysis revealed upregulation of RHO GTPase, RAC, and myogenesis signalling in highly active (HA) cells. WGCNA identified a positive association between a highly active-associated gene module and complex II respiration. **Discussion:** These findings demonstrate that life-long exercise induces durable, cell-intrinsic adaptations in HSkMCs, enhancing mitochondrial energetics and remodeling transcriptional networks. **Conclusion:** HSkMCs provide an ideal model to study epigenetic and metabolic imprinting by habitual physical activity, independent of exercise type.

Consensus in Applied Practice: Developing An International Guiding Document for Assessing Jockey Body Composition

Presenter: *Arthur Dunne (SETU)*
Location: *Building 8: Mary Ward Centre*

Authors: *Dune, Arthur[1]*

[1] Department of Health, Sport & Exercise Science at SETU

Abstract:

Making and maintaining a competitive racing weight is a major challenge for professional jockeys. Consequently, body composition assessment is a routine international practice for evaluating nutrition and conditioning programs, determining minimum riding weights, and managing health risks. However, a wide variety of assessment techniques, lack of standardised protocols and conflicting equations make comparisons across racing jurisdictions problematic. While the IOC guidelines offer best-practice recommendations for assessing and interpreting body composition, sport-specific adaptations are required for this unique population. This study details a multi-jurisdictional audit and consensus-building process used to develop a standardised best practice guiding document for assessing body composition in professional horse racing. This international consensus framework ensures accurate data interpretation for medical staff, practitioners, and researchers, provides a transferable blueprint for data collaboration, and promotes athlete welfare in weight-sensitive sports.

12:25 Sport Ireland Feature Session

Research, Data and Innovation: Current Insights, Future Directions and Strategic Investments

Benny Cullen; Gary McKeegan; Barry Horgan

Location: *Building 7: Engineering*

This Sport Ireland feature session will provide delegates with an update on key developments shaping the research, data and investment landscape across Irish sport. The session will outline the upcoming 2027 Research Grant Scheme (RGS) and Research & Evaluation Grant Scheme (REGS) key dates, providing opportunities for collaboration to deliver impactful research. Updates will also be provided on the High-Performance Sport Innovation Network and Fund, including current activity and future directions in supporting innovation across the high-performance system. Drawing on the latest national datasets, the session will present emerging insights from demographic trends in sport participation, with a focus on how data is informing sports policy, facility and housing development decisions. Finally, the session will explore the future of sport demographics in Ireland, considering how evidence, population change and investment decisions can be better aligned to meet current and future projected scenarios. Overall, this session aims to equip researchers and practitioners with a clearer understanding of where Sport Ireland's research and innovation agenda is heading, and how they can engage with funding, data, and collaborative opportunities to support impactful work across the sector.

13:45 Postgraduate Posters

Postgraduate Poster Session

Please refer to page 66 for postgraduate poster abstracts

Location: Building 8: Mary Ward Centre Upstairs

14:20 Keynote

Kickback: Online Hate, Sport and Gender

Dr Katie Liston

Location: Building 1: Main Building

Katie's keynote will focus on how culture affects all our work as scientists. She will take delegates on a journey of the sociological imagination to reflect on how we constitute the sports world. Using Kickback as the entry point, she will demonstrate how technology has eroded boundaries between spectators and athletes, journalists and their readers, and between managers, officials and fans. Drawing on the findings of a 3-year UK and Irish-funded research project, her talk will examine online hate as a routine condition of participation and labour in sport. Where male athletes are usually targeted for what they do, females are targeted for who and what they are. Katie will present insights from knowledge translation and impact work currently underway.

15:00 TUS Spotlight

Dr Aoife Lane
Location: Building 1: Main Building

15:50 Parallel Sessions

15.50 Symposium

Building Physical Literacy Capacity in Ireland - Novel Research and Strategic Implementation

Chaired By: Maeve Murray (DCU)

Hayley Kavanagh (TU Dublin); Tom Causer (Badminton Ireland)

Location: *Building 1: Main Building*

Integrative Statement: Since the publication of Ireland's 2022 All Island National Consensus Statement on physical literacy, there has been sustained strategic focus on rollout and implementation across sport, education, and community sectors. This symposium aligns with that national agenda by presenting three complementary strands of research and practice that collectively advance a systems-informed approach to physical literacy development. Moving beyond an individualised lens, the symposium explores how physical literacy capacity is shaped not only within the individual, but also through the influence of communities, parents, coaches, and governing structures that surround and support them. The first presentation examines the measured impact of a health and wellbeing initiative delivered to youth in an underserved urban community in Ireland. This research represents one of the first Irish studies to assess physical literacy across all four domains of physical, psychological, social, and cognitive within this population. Findings highlight measurable developmental outcomes while also identifying contextual and structural barriers that influence physical literacy capacity in underserved communities. The second presentation focuses on parents of children with intellectual disabilities. A targeted intervention was designed to enhance parental knowledge, confidence, and capability to support their child's physical literacy development. Findings demonstrate the importance of empowering parents as key agents within a child's developmental ecosystem. The final presentation outlines the strategic deployment and scaling of physical literacy within Badminton Ireland. By embedding and refining the Sport Ireland "Understanding Physical Literacy" module within mandatory grassroots coach education, the Governing Body provides an applied example of how physical literacy principles can be operationalised and sustained through coach development structures. Together, these presentations illustrate how Ireland is progressing from consensus to coordinated capacity-building across individual, familial, community, and organisational systems.

Presentation One: **Contextualising Physical Literacy in One Urban Underserved Community: Measuring Impact of Health and Wellbeing Interventions in Youth**

Maeve Murry, School of Health and Human Performance, DCU; Insight Research Ireland Centre for Data Analytics

Introduction: Physical literacy (PL) is a critical determinant of children's lifelong health and wellbeing. Children living in underserved urban communities may experience structural and social barriers influencing PL development. A contextual understanding of PL can inform targeted health promotion strategies for physical activity engagement. This study examined levels of PL in one urban underserved community in Ireland. **Methods:** Participants (n = 65; 5–13 years) were recruited from three urban youth community health and wellbeing programmes. Participants

completed the Physical Literacy in Children Questionnaire (PLC-Quest), assessing four domains of PL: physical, psychological, social, and cognitive. A subsample (n = 12; 5–6 years) completed actual (TGMD-3 short form) and perceived (PMSC) motor competence measures. **Results:** Social was the highest scoring domain for all children. Lower PLC-Quest scores were observed in younger children (5–6 years). Mean results observed comparable PL findings with published cohorts. Subsample Spearman's rank correlations revealed separate significant correlations between perceived locomotor skills mastery, perceived ball skills mastery, and overall perceived mastery ($p < .001$). No significant associations were observed between actual and perceived motor competence mastery. **Discussion:** Utilising PLC-Quest in Ireland presents novel findings of measured impact on PL in an underserved urban setting, while further demonstrating comparable results to existing published cohort data. However, a contextual approach is required to underscore the importance of systems-level implementation strategies for PL in Irish urban communities. **Conclusion:** Strengthening PL in underserved communities can be structured through extensive health and wellbeing targeted intervention. Reinforcing integrated systems approaches to health promotion in Ireland is warranted.

Presentation Two: Building Physical Literacy at Home: Evaluating the Impact of the PLAYshop Program for Parents of Children with Intellectual Disabilities

Haley Kavanagh, School of Global Business, Sports Management and Coaching, TU Dublin

Introduction: Children with intellectual disabilities (CwID) encounter challenges when developing physical literacy (PL). As a result, parents of children with ID have identified the important role they play in facilitating their children's PL development. This study explored the impact of a parent-focused PL intervention (the PLAYshop program) on improving parental capability (knowledge), opportunity (perceived availability of resources), and motivation (confidence) to support their child's PL development. **Methods**: Parents of CwID (n = 78) participated in the PLAYshop program, involving one face-to-face 60-minute workshop, provision of equipment, educational materials, and booster emails. This study replicated the PLAYshop intervention methodology (Lane et al., 2021). Questionnaires with items related to parental capability, opportunity, and motivation were measured at baseline and post-workshop. A subsample of parents (n = 10) participated in two-month follow-up interviews. **Results:** Repeated measures ANOVA revealed statistically significant improvements ($p < .001$) across all primary outcomes from baseline to follow-up. Qualitative data themes were categorised into four areas: parent satisfaction and usefulness, implementation dose, facilitators and barriers to PL-related play, and future implementation considerations. **Discussion**: This study solidifies the PLAYshop program as an efficacious intervention for parents of children with ID by providing parents with the knowledge and confidence they need to support their child's PL development. The qualitative findings further complement the quantitative results by providing insights into the efficacy of the PLAYshop program for parents of CwID. **Conclusion**: This study demonstrated that the PLAYshop program is both efficacious and scalable for parents of CwID.

Presentation Three: Implementation of Physical Literacy as a Core Part of Badminton Ireland's Coach Education Programme

Tom Causer, Badminton Ireland.

Introduction: Sport Ireland and Sport NI recognise National Governing Bodies (NGBs) as pivotal for systems shaping quality, consistent, and world-leading coach education. Physical literacy (PL)

implementation through appropriate education of coaches ensures a foundation for lifelong participation in sport and physical activity. Subsequently, Badminton Ireland has rolled out a pilot PL programme to grassroots badminton coaches through a hybrid learning approach. **Method:** Experiential learning was utilised as part of Badminton Ireland's annual showcase event. A Sport Ireland accredited PL tutor delivered practical workshops at the Coach Development Conference followed by a theoretical online session. **Results:** Findings suggest the relevance, delivery style, and referrals of the PL workshop were high. However, broader rollout is needed for larger-scale implementation. **Recommendations:** Badminton Ireland is in the early stages of disseminating PL education to coaches at participation levels. Based on this pilot project and what is believed to be best practice, a 'practice to theory' approach will continue to ensure coaches can experience the practical applications of both procedural and declarative knowledge before making sense of it. This will continue through the showcase event, which attracts between 70–90 coaches each year, as well as through online workshops. **Conclusion**: Such is the importance of coaches understanding physical literacy (UPL), the UPL workshop is being integrated into the Coach Licence model and deployment requirements at participation level. Expanding tutor capacity and awareness will facilitate engagement with more coaches across the island of Ireland.

15.50 Oral Presentations

Training intensity distribution in Gaelic Football Players: Is It Time To Be More Objective Rather Than Subjective?

Presenter: *Shane Malone (TU Dublin)*
Location: *Building 8: Mary Ward Centre*

Authors: *Malone, S.[1], Buchheit, M.[2], Akubat, I.[3], Collins, K.[1]*

[1] School of Biological Health and Sports Science, TU Dublin
[2] Aspetar, Doha, Qatar
[3] Birmingham Newman University, Birmingham, UK

Abstract:

Introduction: This study aimed to evaluate training intensity distribution using different intensity measures based on session rating of perceived exertion (sRPE) and heart rate (HR) within the Gaelic football training process. **Methods:** Twenty (n = 20) Gaelic football players participated across a 10-week in-season observational period. Training intensity distribution was quantified using HR and sRPE categorised in a three-zone training intensity model. Three zones for HR were based around a first and second lactate threshold. The three sRPE zones were defined using a 10-point scale: zone 1, sRPE scores 1–4; zone 2, sRPE scores 5–6; zone 3, sRPE scores 7–10. **Results:** Training intensity distribution as percentages of time spent in zone 1, zone 2, and zone 3 was moderate to very largely different for sRPE (39.9%, 34.9%, 25.2%) compared to HR (76.8%, 18.8%, 4.4%). Time in zone 1 quantified using sRPE was large to very largely lower for sRPE compared to HR measures ($P < 0.001$). Time in zone 2 and zone 3 was moderate to very largely higher when quantified using sRPE compared to intensity quantified using HR ($P < 0.001$). **Conclusions:** Training intensity distribution quantified using sRPE demonstrates moderate to very large differences compared to intensity distributions quantified based on HR. The choice of intensity measure impacts the intensity distribution and has implications for training load quantification, training prescription, and the evaluation of training characteristics. Based on the data presented, it might

be suggested that practitioners consider more objective measures of internal load monitoring within the Gaelic football training process.

Performance and Physiological Characteristics of World-Class Rowers: A Systematic Review of Male and Female Competitors

Presenter: *Lorcan Daly (TUS Athlone)*
Location: *Building 8: Mary Ward Centre*

Authors: *Daly, L.S.[1,2], Larsen, J.V.[3], Nybo, L.[3]*

[1] Department of Sport and Health Sciences, Technological University of the Shannon, Ireland
[2] SHE Research Group, Technological University of the Shannon, Ireland
[3] Department of Nutrition, Exercise and Sports, University of Copenhagen, Copenhagen, Denmark

Abstract:

Introduction: The demands of world-class rowing elicit extreme aerobic and anaerobic energy turnover, taxing cardiovascular, metabolic, and neuromuscular capacities to the limits of human physiology. However, no contemporary synthesis has yet systematically collated the physiological determinants of elite male and female rowers, nor integrated these factors into a performance model. This systematic review provides a comprehensive overview of the physiological characteristics of world-class and international-class male and female rowers, and from this evidence base, proposes an applied model for rowing ergometer and on-water performance. **Methods:** A pre-registered systematic review was conducted according to PRISMA guidelines. PubMed and Google Scholar were searched up to 2025 to identify studies examining performance and physiological characteristics of world-class (WC) and international-class (IC) rowers. Data were extracted independently by two reviewers. **Results:** Seventy-five studies encompassing 2,020 world-class and international-class rowers were included. Across sexes, world-class rowers consistently outperformed their international-class counterparts on 2,000-m ergometer performance, with ≈5% higher average power outputs approximating differences in $\dot{V}O_2$max (men: 6.2 vs. 6.0 $L \cdot min^{-1}$; women: 4.3 vs. 4.1 $L \cdot min^{-1}$) and haemoglobin mass (≈+3.6%). Additionally, more pronounced differences were reported for peak power (≈+17%). Gross efficiency (εgross 19.6%) did not differ between calibres. **Conclusions:** This systematic review profiles and identifies key determinants of world-class rowing. Superior peak aerobic power, underpinned by greater haemoglobin mass, cardiac output, and peripheral factors, together with higher peak power output and anaerobic capacity, emerge as key physiological determinants of ergometer performance. Translation from ergometer power to on-water performance remains understudied, although factors such as mass and experience appear relevant.

Match-Play Running Demands and Profiling of Athletes Across Elite Career Stages in Intercounty Hurling: Implications for Player Development Pathways

Presenter: *Conor Clancy (TU Dublin)*
Location: *Building 8: Mary Ward Centre*

Authors: *Clancy, C.P.[1,2], Young, D.[3], Malone, S.[1,2], Keane, J.[1,2], Coratella, G.[4], Collins, K.D.[1,2]*

[1] *School of Biological Health and Sport Sciences, Technological University Dublin, Tallaght Campus, Ireland*
[2] *Gaelic Sport Research Centre, Technological University Dublin, Tallaght Campus, Ireland*
[3] *Department of Sport and Early Childhood Studies, Technological University of the Shannon, Thurles Campus, Ireland*
[4] *Department of Biomedical Sciences for Health, University of Milan, Italy*

Abstract:

Introduction: The current study investigated the relationship between match-play running demands and years of elite hurling experience across the 2021–2023 seasons. **Methods:** Sixty-eight (mean ± SD; age: 25.5 ± 3.6 years, mass: 87.5 ± 5.0 kg, height: 184.2 ± 4.9 cm, years elite experience: 5.3 ± 3.5 years) male elite intercounty hurlers participated. Each participant wore a global positioning system (GPS) unit sampling at 10 Hz (STATSports Apex, Northern Ireland), and if they played ≥70 min, they were included in the analyses. Distance metrics analysed in metres were total distance (TD), high-speed running (HSR) (≥19.8 km·h^{-1}), sprint distance (≥25.2 km·h^{-1}), and high metabolic load distance (HMLD) (≥25.5 W·kg^{-1}). Participants were split into observational groups based on their years of elite experience: Emerging (1–3 years), Established (4–6 years), and Seasoned (7+ years). **Results:** Emerging players covered less HSR ($p = 0.039$, ES = 0.25, small) and sprint distance ($p = 0.019$, ES = 0.28, small) compared to Established players. Seasoned players covered fewer TD and HMLD compared to Emerging players (TD: $p < 0.001$, ES = 0.31, small; HMLD: $p < 0.001$, ES = 0.34, small) and Established players (TD: $p < 0.001$, ES = 0.51, small; HMLD: $p < 0.001$, ES = 0.32, small). **Discussion/Conclusion:** These findings demonstrate differences in match-play running demands across stages of elite playing experience and may inform experience-specific conditioning and load management strategies. Ongoing work will further examine injury incidence, athletic profiling, and U20 match-play demands to better inform long-term player development within elite hurling.

Longitudinal Analysis of Match-Play Shoulder Injury Incidence Rate and Burden in Male Amateur Rugby Union

Presenter: *William Hughes (UL)*
Location: *Building 8: Mary Ward Centre*

Authors: *Hughes, W.[1,2,3], Comyns, T.[1,2,3], Bibby, K.[1,2,3], Yeomans, C.[4], Dolan, P.[1,2,3], Kenny, I.[1,2,3]*

[1] *Department of Physical Education and Sport Sciences, University of Limerick, Limerick, Ireland*
[2] *Sport and Human Performance Research Centre, University of Limerick, Ireland*
[3] *Health Research Institute, University of Limerick, Limerick, Ireland*
[4] *High Performance Centre, Irish Rugby Football Union*

Abstract:

Introduction: Rugby Union is a contact sport with an inherent risk of injury. The shoulder is one of the most injured body parts among amateur male rugby players. Shoulder injury incidence rates (IR) of 3.1 injuries per 1000 player-hours have previously been reported in amateur rugby, with tackle events identified as the primary injury mechanism. Limited evidence describes the longitudinal patterns of shoulder injury incidence and burden in amateur rugby, and how these vary across match quarters. **Purpose:** To examine the IR and burden of match-related shoulder injuries in amateur male rugby across seven seasons, and to determine whether these varied by

match quarter. **Methodology:** Male amateur rugby teams were monitored from 2017–18 to 2024–25, during which 2,748 injuries were recorded. Injury surveillance was conducted using IRISWeb. Data collected included injury mechanism, diagnosis, location, match occurrence, and return-to-play date. IR was expressed as the number of injuries per 1000 player-hours of match exposure (15 × 1.33 × number of games). Injury burden was expressed as days lost per 1000 player-hours. **Results:** Across seven seasons, 392 match-related shoulder injuries were recorded (IR = 6.6). Mean shoulder injury severity was 54 days per injury, resulting in a cumulative burden of 359 days/1000 player-hours. The highest shoulder injury IR occurred during the third quarter (n = 136; 34.4%; IR = 2.3), while burden was greatest in the second quarter (103 days/1000 player-hours). Shoulder sprains were the most common diagnosis (n = 137; 35.4%; IR = 2.3), peaking in the third quarter (n = 52; IR = 0.9). **Conclusion:** This longitudinal analysis showed a high overall shoulder injury incidence rate (6.6/1000 player-hours), peaking during the third quarter, and a substantial burden in the second quarter (359 days/1000 player-hours). These insights may guide shoulder-specific preparation strategies.

The Effects of a Six-Week Pre-Season Games-Based Approach Program on Components of Fitness Among Sub-Elite Gaelic Football Players

Presenter: *Cian O'Dea (TUS Athlone)*
Location: *Building 8: Mary Ward Centre*

Authors: *O'Dea, C., Lane, A., Cregg, C., and Kelly, D.T.*

Department of Sport and Health Sciences, SHE Research Center, Technological University of The Shannon: Midlands-Midwest

Abstract:

Introduction: This study aimed to determine the impact of a short-term games-based approach (GBA) coaching program on components of fitness pertinent to team sport performance. **Methods:** Thirty Gaelic football (GF) players (n = 30) were recruited from a sub-elite (club) team and completed a six-week GBA program, twice per week, as part of pre-season training. Physical performance testing included: drop jump (DJ), countermovement jump (CMJ), 10 m and 20 m sprint time, repeated sprint ability (RSA), and the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1). GBA sessions targeted the game moments of transition and attack organisation. Total time spent in gameplay was progressively overloaded from 34.8 ± 5.4 minutes in weeks 1–3 to 44.2 ± 13.0 minutes in weeks 4–6. **Results:** Significantly large improvements ($p < .001$, $d = 1.36$) in the YYIRTL1 of 457.14 m (95% CI, 262.49 to 651.79) were detected, while no significant changes were observed in DJ or CMJ height, 10 m sprint time, 20 m sprint time, or RSA following the six-week GBA program. **Discussion:** The results suggest that a 12-session GBA coaching program, delivered twice per week and targeting principles of play relevant to key game moments, can significantly improve aerobic fitness while maintaining lower-body power, sprint, and repeat speed qualities. **Conclusion:** GBAs can improve aerobic fitness among sub-elite GF players, potentially lessening the need for isolated aerobic conditioning during a pre-season period. However, targeted conditioning methods are still required for developing speed and repeat speed qualities.

15.50 Symposium

Beyond the One-to-One: Applied Sport Psychology in Team Environments

Chaired By: *Shane Noonan-Holohan (SETU Waterford)*

Kevin McManamon (SETU Waterford); Ciara Losty (SETU Waterford); Emma Saunders (SETU Waterford)

Location: *Building 7: Engineering*

Integrative Statement: Beyond the One-to-One: Applied Sport Psychology in Team Environments brings together complementary perspectives on how psychological principles can be embedded meaningfully within team sport systems. Moving beyond isolated consultations, this symposium positions sport psychology as a cultural, relational, and performance-integrated process. Shane foregrounds an organisational culture approach within GAA contexts, drawing on Schein's (1990, 1992) three levels of culture-artefacts, espoused values, and basic assumptions-to demonstrate how practitioners can shape environments that support flourishing and performance (Fletcher & Wagstaff, 2009; Wagstaff & Wylie, 2018). By working with coaches as cultural leaders (Henriksen et al., 2018), sport psychology becomes a mechanism for aligning values, challenging incoherent assumptions, and embedding behavioural standards across the system. Kevin extends this systemic lens through psychological safety. While widely adopted from organisational research (Edmondson, 1999), its translation to sport requires nuance (Gosai et al., 2021; Vella et al., 2022). Building environments where athletes feel safe to take risks, speak up, and seek feedback has implications for wellbeing, resilience, and performance (Rice et al., 2022). Practical tools for coaches are central to ensuring psychological safety is operationalised rather than rhetorically endorsed. Ciara and Emma emphasise delivery and practice in action-integrating psychological skills within training design, simulations, and everyday coaching practice (Gucciardi et al., 2017; Jackman et al., 2024). Drawing from core theories such as Self-Determination Theory (Deci & Ryan, 1985) and Self-Efficacy Theory (Bandura, 1977), they illustrate how collaboration between practitioner and coach can create ecologically valid, psychologically informed environments. Collectively, these contributions advocate for an embedded, culturally attuned, and coach-integrated model of applied sport psychology, where impact is realised not only in the consulting room, but on the training ground and within the fabric of the team itself.

Presentation One: An Organisational Culture Approach to Sport Psychology Delivery with GAA Teams

Shane Noonan-Holohan (SETU Waterford)

Organisational culture refers to a shared set of values, norms, beliefs and attitudes which influence the way in which members of a group think, feel and behave when in company with each other (Schein, 1992; McGannon & Smith, 2015; Bogale et al., 2024). In sport, performance outcomes, stressors experienced by athletes, and talent development have all been identified as significantly influenced by the organisational culture (Wagstaff & Wylie, 2018). Furthermore, Fletcher and Wagstaff (2009) state that in order to enhance group and individuals' flourishing in sporting environments, careful planning and management of the organisational culture is required. Schein's (1990) three levels of organisational culture provides a mechanism from which to observe, understand and help shape the environment practitioners operate within. These three levels are: (1) Artefacts (i.e. visible structures, behaviours, and symbols), (2) Espoused values (i.e.

what those in the environment say they do), and (3) Basic assumptions (i.e. underlying reasons for action) (Schein, 1990).
This presentation will briefly describe a process by which a practitioner can begin their work within the GAA through the development of values which guide behaviour, and through challenging basic assumptions which may be incoherent with the culture a team is trying to build. This will be discussed through the lens of Edgar Schein's three levels of organisational culture. Moreover, working with coaches as 'cultural leaders' (Henriksen et al., 2018) to embed these norms and values will also be discussed.

Presentation Two: Psychological Safety in Team Sports: Tools for Coaches

Kevin McManamon (SETU Waterford)

Psychological Safety has attracted the attention of researchers since Amy Edmondson popularized the concept in organizational settings with her seminal research in 1999. While it has been embraced and widely used in a sporting context, empirical research remains limited and conceptual clarity is minimal (Gosai et al., 2021; Vella et al., 2022). Taylor et al. (2022) suggest there is evidence of the concept being treated as universally transferable and in danger of being underexplored and misapplied in sport. Research has highlighted that many athletes do not perform in environments where they feel safe to take risks, ask for feedback, speak up on important issues, and address mental health challenges that can arise in their sporting environment (Rice et al., 2022; Walton et al., 2024). Benefits of increased psychological safety include increased wellbeing, performance, resilience, knowledge sharing, and speaking up (Vella et al., 2022), and a greater understanding of how psychological safety appears in sport can support coaches in building more robust team environments. Through research and applied experiences, this talk will address some of the applied challenges in building psychological safety in sport, help the audience understand the concept, and share some evidence-based strategies on how coaches can build psychological safety on and off the field in their teams. Coaches should be able to map their skillset against the tools suggested to support building psychological safety in sport.

Presentation Three: On the Sideline: Applied Sport Psychology with Teams

Ciara Losty, (SETU Waterford)

Sport psychology support within team sport environments is typically delivered through a combination of individual consultation, small-group work, whole-team workshops, and in-situ training integration. Individual sessions allow for confidential exploration of performance concerns, psychological skills development, and tailored interventions aligned with the athlete's needs (Weinberg & Gould, 2019). Group workshops are commonly used to address shared themes such as communication, leadership, collective efficacy, and performance under pressure, helping to align psychological strategies with team culture (Carron, Eys, & Martin, 2012). Increasingly, practitioners adopt an embedded or integrated model, working alongside coaches within training sessions to ensure psychological principles are applied in context rather than delivered in isolation (McCalla & Fitzpatrick, 2016). Contemporary approaches also emphasise ecologically valid delivery methods, such as scenario-based drills and pressure simulations, to enhance transfer to competition (Gucciardi, Hanton, & Fleming, 2017). Collectively, these methods reflect a shift from

classroom-style delivery toward applied, context-driven, and system-informed practice within high-performance team sport settings.

16:40 Irish Elite Athlete and Coach Panel Discussion – Sponsored by UPMC

Inside High Performance: Athletes, Coaches and Sport Science in Action

MC: Aoife Sheehan
Athlete: Niamh Mallon
Athlete: Noel Hendrick
Athlete: Sarah Hawkshaw
Coach: Jack Cooney

Location: Building 1: Main Building

Day 2 – Friday 22nd May 2026

9:15 Keynote

Performing under Pressure: From Threat to Thriving

Dr Josephine Perry (Performance in Mind)
Location: *Building 1: Main Building*

Abstract

In this keynote, Chartered Sport Psychologist Dr Josephine Perry explores how athletes, coaches and professionals can move from threat to thriving when performing under pressure. Drawing on research and experience from high-performance sport, the session examines how the brain's threat system impacts performance, decision-making and wellbeing, and why pressure can so often lead to avoidance, overthinking and self-doubt. Through her practical BE BRAVE approach, Dr Perry will share strategies to help individuals manage pressure more effectively, build confidence, and stay focused on controllable performance behaviours. Attendees will gain practical tools around self-awareness, values, advocacy, grounding techniques and process-focused performance, with insights that can be applied across sport, leadership and everyday high-pressure environments.

10:00 Parallel Sessions

Symposium One: Supporting Physical Activity Across the Cancer Continuum: Clinical Integration, Digital Innovation and Real-World Implementation

Chaired By: *Mairead Cantwell (TUS Athlone)*

Elisa Habluetzel Esposito (SETU Waterford); Michael O'Brien (TUS Athlone); Patricia Sheehan (SETU Waterford)

Location: *Building 7: Engineering*

Integrative Statement: The number of people living with and beyond cancer continues to grow as a result of improvements in the diagnosis and treatment of the disease, with current estimates indicating that there are more than 200,000 members of this community in Ireland. However, cancer treatment is associated with significant burden and can result in a myriad of acute, latent, and/or long-lasting side-effects including pain, fatigue, and lymphoedema, which negatively impact quality of life (QoL) among survivors of cancer. Despite the wealth of evidence supporting the beneficial effects of physical activity (PA) and exercise training throughout the cancer journey, only 25–30% of survivors of cancer achieve the recommended levels of PA, and few receive tailored, effective PA advice and/or support as part of their cancer care beyond verbal recommendations to be active. Effective and innovative approaches are urgently needed to increase the number of people living with and beyond cancer achieving the known health benefits associated with PA, to support the optimisation of health outcomes, wellbeing, and overall QoL. This symposium will present three such approaches where research has been undertaken to better understand how: i) digital programmes and resources could increase access to PA support, ii) PA can be effectively integrated in the clinical setting, and iii) an evidence-based PA intervention

could be translated into an Irish community setting to address gaps in accessible, appealing PA options for men. Collectively, these presentations will provide clinically relevant and practice-ready insights to inform health service planning, policy development, and the scalable integration of accessible, evidence-based PA support into routine cancer care and community settings in Ireland.

Presentation One: Supporting Physical Activity Behaviour Change Among People Living with and Beyond Cancer Through Digital Health: An Environmental Scan of Interventions and Resources.

Elisa Habluetzel Esposito (SETU, Waterford)

Introduction: The purpose of this study is to identify and rank digital health interventions and publicly available digital resources supporting physical activity among people living with and beyond cancer, with particular attention to the use of behaviour change theories and techniques. **Methods:** The current environmental scan jointly searched for scientific literature and online resources. Systematic, narrative, and scoping reviews were searched across databases, and resources were identified through internet searches. Interventions were evaluated for scientific rigour and practical relevance, and resources for reliability, accuracy, and accessibility. Incorporation of behaviour change theories and techniques (BCTs) was assessed using the 40-item CALO-RE taxonomy. **Results:** Twenty-four digital interventions and 77 resources were identified and ranked. The top five interventions combined counselling, education, and self-monitoring; four incorporated wearable technologies; all were theory-informed and used 5 to 16 BCTs. The top five resources referenced physical activity guidelines, recommended avoiding sedentary behaviour, used 12 to 20 BCTs, met 6–9 out of 11 reliability criteria, and were compliant with 7 out of 13 accuracy criteria. **Discussion:** Integrated, theory-based approaches appear associated with greater effectiveness of digital health interventions. Greater consistency in intervention design is needed to isolate efficacy of specific components. Although BCT use is increasing, broader application is warranted. Variable accuracy and reliability across resources highlight the need for more balanced, evidence-based information to support safe physical activity engagement. **Conclusion:** Collaborations between digital resource developers and research institutions could strengthen credibility and reinforce behavioural impact on people living with and beyond cancer.

Presentation Two: Integrating Physical Activity into Usual Clinical Cancer Care: A Narrative Review of Approaches

Michael O'Brien (TUS, Athlone)

Introduction: This study aimed to examine the effectiveness of approaches to the integration of physical activity (PA) within usual clinical cancer care (CC), and the factors associated with the successful implementation of such approaches. **Methods:** A narrative review was conducted. A search strategy was developed which included key search terms and clear inclusion and exclusion criteria. **Results:** Thirty-eight articles met the inclusion criteria, whose reference lists yielded an additional nine eligible articles. The majority of PA approaches were for all individuals who had had cancer (45%) or breast cancer only (26%), conducted in-clinic (30%) or in-clinic and at-home (26%), evaluated as part of a randomised control trial (44.7%), and measured quality of life (QoL) (43%), fatigue (36%), cardiorespiratory fitness (CRF) (36%), and/or PA (34%). Of the studies that measured QoL, fatigue, and/or CRF, 85%, 77%, and 65% reported statistically significant

improvements, respectively. Programme success was associated with regular in-person, email, and/or telephone contact, the use of goal setting, and tools to self-monitor PA (e.g. PA diaries, wearables). Implementation success was associated with access to on-site PA facilities and clinical team support. **Discussion & Conclusion:** Further research, informed and guided by behavioural theory, is needed to support the identification of the most effective approaches to the integration of PA within CC, as well as factors associated with the successful implementation of such approaches. Self-monitoring of PA, access to on-site PA facilities, and support from the broader clinical team are strategies which should be considered when aiming to integrate PA within CC.

Presentation Three: Men United: Evaluating the Feasibility and Acceptability of Translating the Danish FC Prostate Cancer Programme to Ireland, Protocol for a Mixed-Methods Study

Dr. Patricia Sheehan (SETU, Waterford)

Introduction: The Men United Project will translate the evidence-based Danish FC Prostate Cancer initiative into an Irish community setting to address gaps in accessible, appealing physical activity options for men and improve the reach of exercise oncology services. **Purpose:** This study aims to evaluate the feasibility, acceptability, and implementation of delivering a 12-week FC Prostate football-based physical activity programme in Ireland. **Methods:** A mixed-methods feasibility design will be employed. The programme will comprise twice-weekly recreational football sessions delivered over 12 weeks at SETU Arena. Quantitative feasibility metrics will include screening logs, recruitment and retention rates, session attendance, and adherence. Qualitative data will be collected through post-programme focus groups with participating men and semi-structured interviews with clinicians, coaches, and community stakeholders. Field notes and implementation checklists will document fidelity and contextual factors influencing delivery. All qualitative data will be audio-recorded, transcribed verbatim, anonymised, and analysed using a framework-based thematic approach. Participants will be ≥18 years, English-speaking, and have a non-metastatic prostate cancer diagnosis. Recruitment will occur through oncology services and community referral pathways. Ethical approval has been sought. **Expected Outcomes:** As the study has not yet begun, results are not available. Findings will inform feasibility, acceptability, implementation considerations, and future replication or national scale-up. **Conclusion:** Men United will generate essential evidence on translating an established football-based exercise oncology model into the Irish context, with potential to improve survivorship support for men with prostate cancer.

10:00 Symposium Two: Collaborative Case Studies: Skill Acquisition in Partnership with other Sport Science Domains (Movement and Skill Acquisition, Ireland)

Chaired by: *Phil Kearney (Movement and Skill Acquisition Ireland, UL)*

Oliver Logan (Movement and Skill Acquisition Ireland, Logan Performance Consulting); Edward Coughlan (Movement and Skill Acquisition Ireland, MTU Cork); Alan Dunton (Movement and Skill Acquisition Ireland, MTU Cork)

Location: *Building 1: Main Building*

Integrative Statement: When coaches and sport science practitioners work together in an interdisciplinary support team environment, healthy and holistic athlete development can be optimised. While skill acquisition is an emerging discipline, it offers considerable potential for collaboration across domains. Within the sport and exercise sciences, many practitioners from other domains collaborate with skill acquisition specialists or draw upon the skill acquisition literature to enhance their practice. Within this symposium, three illustrative collaborations will be explored. In the first case study, performance blocks are examined: persistent, involuntary failures to execute previously mastered movements. The presentation illustrates how sport psychologists may collaborate with skill acquisition specialists to establish an optimal learning environment and to design specific practice protocols and instructional techniques to help athletes overcome performance blocks. In the second case study, the focus shifts to how biomechanists and performance analysts may draw upon skill acquisition to enhance their provision of feedback and to explore methods of enhancing player decision-making. General principles for supporting athletes and coaches to enhance service delivery will be outlined. In the third case study, athlete assessment is explored. Skill acquisition specialists may contribute expertise on skill assessment to enhance the quality of measurement and the transfer of skills from practice sessions to competition settings to accelerate athlete learning. The symposium will conclude by identifying future opportunities and drawing broader lessons to guide the collaboration of skill acquisition specialists with practitioners from other sport and exercise science domains.

Presentation One: Collaborating to Overcome Performance Blocks: Integrating Skill Acquisition & Sport Psychology

Phil Kearney (Movement and Skill Acquisition Ireland, UL)

Introduction: The term Performance Block describes a range of long-term disruptions to well-learned motor skills including Lost Move Syndrome, the 'twisties', target panic, flikikammo, and the yips. Although these performance blocks are known by different names and manifest in diverse ways, the similarity in their cognitive and emotional characteristics has led various research groups to conclude that they represent different presentations of a common experience. This presentation explores how skill acquisition specialists and sport psychologists can collaborate in the management of performance blocks. **Method:** A reflective synthesis of guiding principles for the integration of skill acquisition and sport psychology support for athletes and coaches dealing with performance blocks, derived from case studies across multiple sports. **Results:** Performance blocks appear to have multifactorial causes, including fear, trauma, and atypical skill acquisition histories, compounded by contextual stressors. Intervention strategies remain

tentative, emphasising individualised approaches and collaboration between coaches, skill acquisition specialists, and psychologists. General principles for supporting athletes include: (i) prepare holistically for practice; (ii) engage in task simplification and contrast training; and (iii) progressively challenge and affirm. **Discussion:** Effective support of athletes experiencing performance blocks demands nuanced understanding, interdisciplinary cooperation, and ongoing research to refine strategies for recovery and prevention. The presentation concludes by making five general recommendations for interdisciplinary support teams who encounter performance blocks.

Presentation Two: Skill Acquisition Principles for Biomechanists and Performance Analysts

Oliver Logan *(Movement and Skill Acquisition Ireland, Logan Performance Consulting)*

Introduction: Sport and Exercise Science undergraduate and specialist MSc courses in Sports Biomechanics and Performance Analysis often focus on the key technical skills and knowledge required to prepare students for employment working in these roles. Biomechanists and performance analysts working in either sport or clinical settings are often required to work directly with coaches and athletes but may not have been exposed to how to effectively work with these groups using key skill acquisition principles. **Methods:** A reflective synthesis of guiding principles for the integration of skill acquisition with biomechanics and performance analysis for support staff working with coaches and athletes. **Results:** When working with coaches and athletes, practitioners in biomechanics and performance analysis commonly engage in the following areas: video feedback, technique change/modification, and practice design. General principles for supporting athletes and coaches will be provided to enhance service delivery. **Discussion:** Integrating skill acquisition principles into the delivery provided by biomechanics and performance analysis practitioners can enhance service delivery to aid learning for coaches and athletes.

Presentation Three: Skill Acquisition Can Enhance Skill Assessment for Your Sport

Edward Coughlan & Alan Dunton (Movement and Skill Acquisition Ireland, MTU Cork)

Introduction: Skill assessments tend to be designed in ways that are not representative of how skills are executed within the actual game. This reductionist approach of deconstructing skills to micro-measure actions, oftentimes with a specific movement template to compare against, can produce test results which do not reflect competitive potential or effectively guide practice design. In sum, skill assessment should do more to embrace the complexity of sport. **Methods:** The SCORE framework is a guide to problem-setting by coaches for athletes to encounter skills in a measurable, repeatable way that quantifies change over time and encourages transfer from practice to competition. S stands for Skilful Interactions, C stands for Context, O stands for Outcome & Process, R stands for Reliability & Validity, and E stands for Evolution. **Results:** Skilful Interactions speak to the perception-action coupling being maintained in a skill assessment. Context speaks to the fidelity of the moment reflecting the demands of the sport. Outcome & Process focuses on the result of the action and determination of the process that underpinned the result. Reliability & Validity underpin the repeatability and replication of the test by testers and how a standard of performance on the test can be established. Evolution asks that the test evolve as athletes improve to ever more complex scenarios of the sport in question. **Discussion:** Skill assessments have a role to play in the development of all athletes so long as the assessment tests the realistic skilful demands of the sport.

10:00 Symposium Three: Who Gets In and How They Experience It? Selection, Streaming, and Coaching in Youth Gaelic Games

Chaired by: *Peter Horgan (Gaelic Athletic Association)*

Paul Donnelly (Ulster University); Michael McKay (Ulster University); David Moran (DCU); Stephen Behan (DCU); Aaron Kyles (ATU)

Location: *Building 8: Mary Ward Centre*

This symposium brings together three complementary studies examining how structural and interpersonal features of youth pathways shape participation, selection, and experience in Gaelic games. Collectively, the papers investigate the coaching climate, ability grouping, and talent identification during early adolescence. The first paper presents a subset of findings from the larger Youth Participation Study and focuses on the psychosocial context of participation in youth sport. The paper illustrates that coach autonomy support is a key determinant of young players' enjoyment, motivation, and perceived competence in Gaelic games participation. The second paper analyses ability-based grouping ("streaming") in youth Gaelic games, documenting how early differentiation structures opportunity, competitive exposure, and perceived status within club environments. The third paper demonstrates that U14 players selected into a Gaelic football development programme are significantly more biologically mature, larger, faster, and more powerful than deselected peers, highlighting systematic maturation bias in selection processes. Collectively, the findings suggest that maturation-linked selection and streaming practices interact with coaching climate to produce divergent developmental trajectories: early-maturing, selected players are more likely to access enriched coaching and competitive environments, whereas later-maturing or deselected peers may encounter constrained opportunities and less supportive climates. This raises important questions regarding equity, retention, and the alignment of youth structures with long-term player development principles. The symposium proposes evidence-informed recommendations for researchers, governing bodies, coaches, and youth sport practitioners, not only in youth Gaelic games but across the broader sporting landscape. Specifically, it argues for maturation-aware selection criteria, flexible grouping structures that preserve mobility and inclusion, and coach education emphasising autonomy-supportive practice. By situating biological maturation, organisational structures, and coaching behaviour within a single framework, the session offers a coherent agenda for enhancing both performance pathways and participation experiences.

Presentation One: Youth Participation in Gaelic Games: The Influence of Coach Autonomy on Young People's Experience of Gaelic Games

Dr. Paul Donnelly & Dr. Michael McKay (Ulster University)

Introduction: Participation in sports is linked to physical and psychosocial benefits, including confidence, resilience, and social development, yet not all young people experience sport positively, and dropout rates are high during adolescence. This study examined factors influencing young people's self-rated experiences of Gaelic games. Three questions guided the research: 1. How did participants rate their past-year experience? 2. How were ratings associated with demographic and participation variables (e.g. gender, age, playing context)?

3. How did coach autonomy relate to experience after accounting for these variables? **Methods:** Participants (N = 4,594; 49.4% male) were drawn from the Youth Participation Study. Multinomial logistic regression examined past 12-month self-rated experience (very poor/poor, fair, good, very good) as the outcome. Predictors included age, gender, residence, playing extent, playing context, participation in other sports, and coach autonomy scores. **Results:** Consistently, younger age, higher coach autonomy, and greater playing time were associated with more positive experiences. Those reporting very poor/poor experiences were more likely to play other sports and less likely to continue Gaelic games. Fair versus very good experience was linked to playing in fewer contexts. Good versus very good experience also showed male participants more likely to report lower ratings, along with lower coach autonomy, older age, and less playing time. **Discussion & Conclusion:** Experiences are shaped by both structural (playing time, context) and interpersonal factors (coach autonomy). Targeting autonomy-supportive coaching and promoting broader engagement across contexts may enhance enjoyment, retention, and long-term participation in youth Gaelic games, with implications for other youth sports.

Presentation Two: Grouping by Ability in Youth Sport: Streaming in Gaelic Games

Dr David Moran & Dr Stephen Behan (DCU)

Introduction: This study examined the experiences and perceptions of streaming (ability-based grouping) in youth Gaelic games. Streaming is widely used in clubs with multiple teams per age grade, yet its impact on player experience, motivation, and equity remains under-researched. **Methods:** Semi-structured interviews were conducted with 42 players, 24 parents, and 19 coaches across five clubs. Thematic analysis explored perceived benefits and challenges of streaming in training and competition. **Results:** Findings indicate that streaming is generally viewed as an adaptive mechanism, providing appropriately challenging opportunities and supporting team cohesion. However, systemic issues were reported: higher ability groups often received disproportionate resources, and player movement between streams was limited, reducing flexibility and undermining potential developmental benefits. Additionally, lower ability female players were perceived as less understood, with motivations and engagement often overlooked by both parents and coaches. **Discussion:** The study highlights that while streaming can support motivation and skill development, its effectiveness depends on equitable resource allocation, flexibility in player grouping, and awareness of individual needs. Implementation without careful planning risks reinforcing inequities and limiting participation benefits for some groups. **Conclusion:** These insights underscore the need for deliberate strategies in youth sport management, including coach education on autonomy-supportive practices, flexible group structuring, and attention to gender and ability differences. By addressing these factors, clubs can maximise the developmental and motivational benefits of streaming while minimising unintended negative consequences.

Presentation Three: Who Gets Selected? Maturation and Physical Profiles in U14 Gaelic Football Pathways

Aaron Kyles (ATU)

Introduction: Selection decisions in youth academy sports are often made during periods of rapid physical development, yet little is known about how biological maturation, size, and physical performance influence selection outcomes. This study examined whether maturity and physical characteristics predict selection into a U14 male Gaelic football academy. **Methods:** Eighty-three

U14 male Gaelic footballers were assessed for anthropometrics (height, body mass), maturity, jump performance (countermovement jump, standing broad jump, drop jump), sprint speed (10 m, 30 m), and linear repeated sprint ability (RSA). Players were subsequently selected (n = 53) or deselected (n = 30) into a county Gaelic football academy. Logistic regression models assessed differences between groups and evaluated predictive ability of measured variables. **Results:** Selected and deselected players did not differ in chronological age (OR = 1.27, $p > 0.05$). However, selected players were significantly more mature (OR = 2.47, $p < 0.01$), taller (OR = 2.24, $p < 0.01$), and heavier (OR = 1.89, $p < 0.05$). They also outperformed deselected peers across sprinting, jumping, and power measures (OR range = 2.10–3.21, $p < 0.05$). A combined model including height, sprint times, repeated sprint ability, standing broad jump, and drop jump contact time strongly differentiated groups (OR = 6.52) with excellent predictive accuracy (AUC = 0.90). **Discussion:** Physical advantages observed in selected players likely reflect both training exposure and advanced biological maturation, highlighting the potential for selection bias toward early-maturing athletes. **Conclusion:** U14 players selected into a Gaelic football academy are bigger, faster, and more powerful than deselected peers. Practitioners should account for maturity status when making selection decisions to ensure equitable talent development pathways.

10.00 Workshop: Beyond Numbers: Safe, skilled and ethical practice in body composition

Presenters: *Sharon Madigan (Sport Ireland Institute); SarahJane Cullen (DCU)*
Location: *Building 8: Mary Ward Centre Upstairs*

Abstract

Many practitioners are technically trained in taking body composition measurement, but much less supported in the clinical judgement and navigating the sensitivities around using those measurements. We aim to help practitioners recognise that technical competency in body composition measurement is not the same as competency in body composition practice, especially when there are issues of consent, privacy, interpretation, communication, eating disorder risk, athlete welfare, and pressure from coaches. We are looking at body composition practice through a wider lens: not just how to measure, but how to think, communicate, and act professionally when requests are messy, pressured, or potentially harmful.

11:15 Postgraduate Presentations and Parallel Workshop

Please refer to page 55 for postgraduate presentations abstract details

Athletic Therapy, Sports Medicine & Biomechanics	Physical Activity and Health	Applied Sports Performance
Postgraduate Presentations	*Postgraduate Presentations*	*Postgraduate Presentations*
Location: Building 7: Engineering	**Location:** Building 8: Mary Ward Centre	**Location:** Building 1: Main Building

11:15 Workshop: From Sprint Data to Training Decisions: Practical Applications of the 1080 Sprint

Presenters: *Shane Ryan (UL); Alex Ryan (St. Mary's University, Twickenham)*
Location: *TUS Outdoor Track*

Abstract:

Sprint performance is a key determinant of success across many sports; however, practitioners often collect sprint data without clear guidance on how to interpret key outputs or translate findings into effective training decisions. This workshop aims to bridge that gap by providing an applied introduction to the use of the 1080 Sprint system for assessing and developing sprint performance in sport and exercise settings. The session will outline how the 1080 Sprint can be used to assess key sprint metrics, including force-velocity characteristics, load–velocity profiling, split-time analysis, and asymmetry measures. Emphasis will be placed on practical testing considerations, common pitfalls associated with resisted and assisted sprint protocols, and identifying which metrics are most meaningful for informing sprint training prescription. In addition to resisted and assisted sprinting, the workshop will introduce participants to the broader capabilities of the 1080 Sprint system, including advanced modes such as isokinetic and velocity-controlled sprinting. Applied examples will be used to highlight when and why these features may be appropriate within performance, rehabilitation, and athlete development contexts. This workshop is intended for coaches, sport scientists, performance analysts, and educators seeking to enhance their applied understanding of sprint assessment technologies. Using anonymised case examples, participants will be guided through the interpretation of sprint profiles and shown how changes in key outputs can inform decisions around sprint loading, progression, and monitoring. Participants will leave with clear, practical strategies for integrating 1080 Sprint data into evidence-informed and practice-based approaches to sprint performance development.

12:00 Parallel Sessions

Oral Presentations

Profiling Coaching Expertise as Adaptive Skill in Premier League Academy Football: Development and Pilot Evaluation of Simulation-Based Assessment

Presenter: *John Alexander Burns (DCU)*
Location: *Building 8: Mary Ward Centre*

Authors: *Alex Burns[1,3], Simon Phelan[2], Aine MacNamara[3,4], Stephen Behan[1,3,4], Daniel Newcombe[4,5], Scott McNeill[4,5], Michael Ashford[1], Jamie Taylor[3,4]*

[1] Insight Research Ireland Centre for Data Analytics, Dublin City University, Dublin, Ireland
[2] School of Sport, Health and Allied Health Professions, Oxford Brookes University, Oxford, United Kingdom
[3] Co-Ex|Lab, School of Health and Human Performance, Faculty of Science and Health, Dublin City University, Glasnevin, Ireland
[4] School of Health and Human Performance, Faculty of Science and Health, Dublin City University, Dublin, Ireland
[5] Coach Development, Premier League, London, United Kingdom

Abstract:

Introduction: Sport coaching expertise is increasingly conceptualised as adaptive skill: the ability to make timely, context-sensitive changes in planning and methods in response to evolving constraints. Despite its importance, applied methods for assessing domain-specific adaptive skill remain limited. This study developed and pilot-evaluated a phase-specific, simulation-based assessment to profile coaching expertise across the Foundation, Youth Development, and Professional Development phases of Premier League academy football. **Methods:** Coherent with the Naturalistic Decision Making paradigm, ecologically grounded, video-based simulations were designed to preserve conceptual fidelity. Development involved a two-stage pilot: (i) refinement with 1–2 coaches per phase to standardise procedures, and (ii) an initial assessment of 14 academy coaches. A mixed-methods approach combined quantitative rubric scoring with qualitative deductive content analysis to evaluate cue detection, strategy selection, and cognitive process indicators. **Results:** Quantitative outputs were derived from ratings of cue identification accuracy and strategy coherence. Qualitative analysis captured the content and structure of justifications, specifically cue-strategy linkages. These layers were synthesised into an overall cue-strategy coherence index to characterise adaptive skill within each simulation. **Discussion:** The assessment successfully elicited the cognitive processes supporting sensemaking and adaptation. By identifying specific cue-strategy linkages, this profiling method provides a theory-driven framework for targeted coach development within specific coaching ecologies.

Exploring the influence of a collaborative coach education programme on coaches questioning practice

Presenter: *Niall O'Nahony (MTU Kerry)*
Location: *Building 8: Mary Ward Centre*

Authors: *O'Mahony, N.[1,2,3], Sherwin, I.[2,3], Lyons, M.[2,3], Harvey, S.[4], and Kearney, P.[2,3]*

[1] Munster Technological University, Kerry
[2] University of Limerick
[3] Sport and Human Performance Research Centre, University of Limerick
[4] Ohio University

Abstract:

Introduction: Coach education is frequently criticised for a 'one-size-fits-all' approach that limits coaches' opportunities to shape provision and contextualise learning to their practice settings. Although questioning is widely recognised as a valuable pedagogical tool, its application in coaching is often constrained by limited pedagogical knowledge and prescriptive delivery (Cope et al., 2016). This study examined how a collaboratively designed, practice-embedded coach education programme influenced coaches' questioning practices, as perceived by coaches and players. **Methods:** Guided by collaborative action research, the study employed a mixed-methods design combining systematic observation, video-based reflective conversations, semi-structured coach interviews, and player focus groups. Baseline data collected across one season informed the co-production of an education programme, which was facilitated by the lead author the following season. The programme targeted questioning practice, identified by coaches as a priority for development. **Results:** Coaches reported improvements in both the frequency and quality of questioning and described a shift from an authoritative towards a more facilitative role. These perceptions were supported by systematic observation and player accounts, which indicated increased engagement, problem-solving, and autonomy. Coaches also identified ongoing challenges, including refining questioning in situ and navigating social dynamics within coaching teams. **Conclusion:** The findings suggest that collaborative, practice-embedded coach education can support the development of coaches' questioning practices, while also revealing contextual dilemmas that influence implementation and sustainability.

The game is the teacher? Understandings and misunderstandings of games based approaches

Presenter: *David Moran (DCU)*
Location: *Building 8: Mary Ward Centre*
Authors: *David Moran[1,2], Stephen Behan[1,2,3], Áine MacNamara[2,3], Peter Horgan[4], Jamie Taylor[2,3]*

[1] Insight SFI Centre for Data Analytics, Dublin City University, Glasnevin, Dublin 9, Ireland
[2] CoEx|Lab, Dublin City University, Glasnevin, Dublin 9, Ireland
[3] School of Health and Human Performance, Faculty of Science and Health, Dublin City University, Glasnevin, Dublin 9, Ireland
[4] Gaelic Athletic Association

Abstract:

Introduction: Games based approaches (GBA) have emerged as popular approaches to team sport coaching in recent decades. Despite widespread adoption, misinterpretations have arisen which have the potential to detract from implementation, despite a significant body of research from multiple theoretical perspectives. **Methods:** Gaelic games provide an example where a National Governing Body (NGB) has advocated for GBA for some time, through mediated and unmediated sources. Thus, using separate focus groups with parent coaches (n = 15), talent development coaches (n = 17), and NGB staff (n = 12), this work explored perceptions of the impact of GBA in Gaelic games. **Results/Discussion:** Findings indicate that, despite sustained promotion, there seems to be a lack of clarity on what a GBA entails. Participants often misunderstood the approach, conflating it with Small-Sided Games. Despite this lack of clarity, participants associated the utilisation of GBA with the development of more skilful players who understand the game better than previous generations. Conversely, some coaches seem to adopt naïve applications of GBA, the implication being approaches characterised by minimal guidance and limited scaling of game-form activities. In this regard, the notion that merely playing a game is enough to ensure player development, regardless of coaching input, is discussed along with the impact of a copy-and-paste attitude to practice design, a cause for concern for some coaches. **Conclusions:** This study highlights the need for nuanced coach development, emphasising GBA as one tool among many, rather than a one-size-fits-all solution. NGBs are encouraged to support coaches in understanding the contextual suitability of different coaching approaches.

12:00 Panel Discussion: The Role of Human Evolution in Musculoskeletal Health and Disease

Chaired By: *Liam Hughes (SETU Carlow)*

Panel: *Aoife Langford (SETU Carlow); Jia Wei Siow (SETU Carlow); Mark Nolan (SETU Carlow); Elisabetta Brigo (SETU Carlow)*

Location: *Building 7: Engineering*

Proposition Statement: Physical activity has declined rapidly among humans in the western world since the advent of the industrial (~250 years) and later, the technological revolution (~25 years). Children are among the most active members of the population, but the emergence of childhood diabetes (~20–30 years ago) and declining physical literacy across Europe suggest children are also suffering from modern environments that are considered recent in our evolutionary history. While it is evident that the total amount of movement humans undertake has declined, modern environments have removed much of the environmental complexity that required a variety of movement strategies, e.g. hunting, gathering, tree climbing, and navigating variable terrain whilst barefoot. It can be argued that humans are required to move less, but also to move less variably. Skilful human movement is dependent upon sensory input, which comes in large part from the feet. The human foot has undergone rapid changes in its footwear-surface environment in a very short space of time. Humans have walked and run barefoot for millions of years. Indirect evidence suggests that footwear emerged as recently as ~30,000 years ago. For the majority of time since then, humans have worn minimalist footwear designed primarily to protect the sole of the foot. Modern footwear is known to weaken the intrinsic muscles of the feet and encourage ‘heavier’ landing mechanics on what are now largely unyielding surfaces (roads, pavements, running tracks, synthetic pitches). Increasingly, scientists are beginning to view certain injuries as mismatch diseases — in other words, diseases directly related to changes in the footwear-surface

environment. This panel discussion will begin with the influence of modern environments on childhood movement development before discussing the influence on adult movement mechanics and the subsequent development of injury. Finally, the discussion will address the changes in the healthcare industry required to reverse certain musculoskeletal mismatch diseases.

12:00 Panel Discussion: Sleep and Travel: Whose role is it? How to develop a novel service in a multi-sport environment.

Chaired By: *Sarah Jane McDonnell (Sport Ireland Institute)*

Panel: *Michelle Biggins (Sport Ireland Institute) & Ciara Sinnott O'Connor (Sport Ireland Institute)*

Location: *Building 1: Main Building*

Proposition Statement: This panel session from the Sport Ireland Institute explores the journey from a real-world performance question — *"Sleep: whose role is it?"* — to the development of an innovative sleep support service within a multi-sport high-performance environment. Through a multidisciplinary lens, the discussion will examine how performance needs are identified, and the practical challenges of implementing a novel athlete support service across diverse sports and performance contexts. The session will provide insights into applied practice, service development, and the evolving role of sleep management in elite sport performance.

12:00 Workshop: Delivering Community-Based Balance and Resistance Training for Older Adults: The Forever Fit Carlow Model

Presenters: *Conor Dowling (SETU Carlow); Lawrence King (SETU Carlow); Deborah Foley (Active Carlow); Ger Bonner (Active Carlow)*
Location: *Building 8: Mary Ward Centre Upstairs*

Abstract:

This workshop will present a multi-stakeholder approach to delivering balance and resistance training for older adults, using the Forever Fit Carlow initiative as a practical case study. Developed through collaboration between researchers and Active Carlow, the programme aims to increase accessibility to resistance training while maintaining meaningful health and physical performance outcomes in older populations. The workshop will consist of five segments: introduction, interactive session, stakeholder insights, a day-in-the-life, and Q&A. Following a brief overview of the programme's development and key principles, participants will engage in hands-on assessments commonly used within the initiative, including handgrip strength, isometric mid-thigh pull, and the 30-second chair stand test. This will be followed by a practical demonstration of balance and resistance training exercises tailored for older adults. To provide a holistic understanding of programme delivery, the workshop will incorporate short stakeholder perspectives, including insights from programme coordinators and participating older adults. A pre-recorded "day-in-the-life" segment will further illustrate the logistical and practical

considerations of delivering resistance training at a community level. This workshop will be particularly relevant for sport and exercise science practitioners, students, and early-career professionals interested in physical activity for health. It will demonstrate how collaborative partnerships can support programme implementation and sustainability, while highlighting that key resistance training principles can be effectively maintained in community-based settings. Attendees will leave with practical tools, applied insights, and greater confidence in delivering effective resistance training for older adults.

13:20 Parallel Sessions

Undergraduate Poster Presentations

Please see page 101 for undergraduate poster abstracts
Location: *Building 8: Mary Ward Centre Upstairs*

Workshop with HRIG

Presented By: *HRIG Ltd*
Location: Building 8: Mary Ward Centre Upstairs

HRIG LTD develops precision isometric hamstring assessment technology designed to support clinicians, therapists, and performance professionals in accurately measuring hamstring strength and imbalance. Our device delivers reliable, repeatable data to aid injury prevention, rehabilitation monitoring, and return-to-play decision-making. Built for clinical, research, and elite sport environments, HRIG combines biomechanical insight with user-friendly design to enhance objective muscle assessment. We are committed to improving outcomes, reducing injury risk, and advancing evidence-based hamstring evaluation worldwide.

13:55 Keynote

The Algorithmic Athlete? The Importance of Science in Sport and Medicine in the Age of AI.

Prof Sam Robertson (TCG Advisory / Institute for Sports Tech Standards)

Location: Building 1: Main Building

14:40 Parallel Sessions

Oral Presentations

Active Allyship in Sport and Exercise Science: A Micro-Credential for Undergraduate Students

Presenter: *Emma Cowley (TUS Athlone)*
Location: *Building 7: Engineering*

Authors: *Cowley, E.S.[1], McGeeney, E.[2], Lane, A.[1], and Coll, L.[3]*

[1] SHE Research Centre, Department of Sport and Health Science, Technological University of the Shannon, Athlone, Ireland
[2] Education and Research Consultant, Devon, United Kingdom
[3] School of Policy & Practice, Institute of Education, Dublin City University

Abstract:

Introduction: Gender inequality remains a systemic issue within sport, including higher education. Undergraduate sport and exercise science students are critical to shaping more equitable systems. This abstract outlines the development of a pilot online micro-credential designed to enhance students' knowledge, confidence, and capacity to act as "Champions of Change" towards gender equality in sport, empowering them to recognise gender inequities and confidently speak up. The initiative is part of míde research and is funded by the Higher Education Authority Gender Equality Enhancement Fund. **Methods:** The self-paced online micro-credential was developed through interdisciplinary collaboration and integrates historical artefacts, interviews from experts across higher education institutions, and stakeholder action pathways. Embedded formative assessments, reflective tasks, and a pre–post survey assess changes in student knowledge, perceptions, and confidence relating to gender equality and equity, allyship, and inclusive practice. Process evaluation and focus groups will explore student experience and perceived impact to inform course refinement and scale-up. **Results:** Preliminary findings from the first cohort will be available at presentation. Analyses will explore shifts in gender equity literacy and students' readiness to contribute to equitable practice in sport and sport and exercise science settings. Process data will identify strengths and areas of development in course design and delivery. **Discussion:** Findings will inform iterative development of a scalable, sustainable educational model designed for adoption across higher education institutions and dissemination through national sport and exercise science networks such as ISESA. **Conclusion:** Short, flexible, targeted educational interventions embedded within sport science curricula may enhance students' critical awareness and readiness for allyship.

Evaluating the Reach, Accessibility, and Perceived Impact of the Dare to Believe Athlete Ambassador Programme in Irish Schools

***Presenter**: Eimear Kelly (TUS Athlone)*
***Location:** Building 7: Engineering*

***Authors:** Kelly, E., Lane, A.*

Department of Sport and Health Sciences, TUS Athlone

Abstract:

Athlete ambassador programmes are widely used to inspire young people and promote engagement in sport and physical activity. However, there is limited empirical evaluation of their reach, accessibility, and mechanisms of influence, particularly at a national level. This study evaluates the Dare to Believe programme, an Olympic Federation of Ireland initiative delivered in partnership with Sport Ireland, which connects elite athletes with primary and post-primary students across Ireland. Using a mixed-methods evaluation framework, Phase 1 analysed programme administrative data from 2024–2025 to assess reach, accessibility, and structural characteristics. Across this period, 231,997 students engaged with the programme through curriculum and digital components, with 8,666 students participating in direct athlete visits delivered by 43 athlete ambassadors across 30 counties. Delivery was strongly aligned with equity objectives, with approximately 96% of visits occurring in DEIS (Delivering Equality of Opportunity in Schools) settings. However, geographic concentration in urban counties and demand exceeding delivery capacity highlight structural considerations for programme scaling and allocation. Phases 2 and 3 examine programme fidelity and perceived impact through student focus groups, teacher interviews, athlete interviews, and athlete surveys. These data explore how athlete ambassadors function as role models, including mechanisms of relatability, inspiration, and perceived attainability. This evaluation contributes to understanding how athlete role model interventions operate within real-world school contexts and demonstrates the importance of combining reach metrics with experiential data. Findings provide evidence to inform programme development, equitable access, and strategic planning for athlete ambassador initiatives aimed at supporting youth engagement in sport and physical activity.

From the Sublime to the Ridiculous: Applied Insights from the World of Red Bull.

***Presenter:** Kate O'Keefe (Red Bull Athlete Performance Centre)*
Location: Building 7: Engineering

***Authors:** O'Keeffe, K.[1]*

[1] Red Bull Athlete Performance Centre

Abstract:

Mental performance is widely acknowledged as critical to elite sport, yet in high-performance environments it is often poorly integrated, inconsistently applied, or reduced to isolated interventions. This presentation offers a candid, practice-based account of applied mental performance work within an elite athlete performance centre supporting athletes across Olympic,

professional, and extreme sports. Drawing on real-world case examples, this talk outlines how mental performance support is integrated alongside sport science, medicine, physiotherapy, nutrition, and strength and conditioning, rather than delivered as a standalone service. Key themes include managing mental load and fatigue in high-demand training environments, integrating subjective and objective monitoring into daily decision-making, and supporting athletes through injury, return-to-play, identity development, and sustained performance under pressure. A particular emphasis is placed on practitioner adaptability, i.e. tailoring interventions across sports with differing cultures, performance demands, and tolerances for discomfort. The presentation highlights how simple, low-burden strategies such as reframing recovery, decision-making under fatigue, and developing comfort with uncertainty can have meaningful impact when embedded consistently within the performance system. The aim of this presentation is to offer applied reflections, lessons learned, and practical frameworks that other practitioners can adapt within their own contexts. Attendees will leave with transferable ideas for integrating mental performance principles into everyday practice, regardless of role or discipline.

14:40 Oral Presentations

"More low-cost or free activities mean that everybody has an equal chance to be active." A mixed-methods study of parental perspectives on children's access to free/low-cost physical activity opportunities in Northern Ireland.

Presenter: *Roisin McCafferty (Ulster University)*
Location: *Building 8: Mary Ward Centre*

Authors: *Roisin McCafferty[1], Angela Carlin[2], Róisín Carney[1], Marie H. Murphy[2,3], Alison M. Gallagher[4], Ciara Fitzpatrick[5], S. Maria O'Kane[1]*

[1] Institute of Nursing and Health Research, Ulster University
[2] Centre for Exercise Medicine, PA and Health, Sports and Exercise Sciences Research Institute, Ulster University
[3] Physical Activity for Health Research Centre (PAHRC), Institute for Sport, Physical Education and Health Sciences, University of Edinburgh
[4] Nutrition Innovation Centre for Food and Health (NICHE), Biomedical Sciences Research Institute, Ulster University
[5] School of Law, Ulster University

Abstract:

Introduction: Physical activity (PA) in childhood and adolescence is associated with established health benefits. Despite this, many children worldwide do not meet current PA guidelines, potentially affecting their long-term health. Financial cost is a recognised barrier to participation in sport and PA, and there is a persistent inequality in PA where children from more affluent families are more physically active. Free/low-cost PA opportunities may help promote more equitable access to PA opportunities for children; however, the evidence base remains limited. **Methods:** This mixed-methods study explored parental perspectives on children's engagement with free/low-cost PA opportunities, the availability of such opportunities locally, and their views on future provision. A cross-sectional survey (n = 855) and semi-structured interviews were conducted, online or by telephone, with 29 parents/guardians of children aged 4–16 years in Northern Ireland. **Results & Discussion:** Nearly one-third (29%) of parents/guardians reported that their children had started or increased participation in free activities (e.g. walking/running)

since the onset of the cost-of-living crisis in 2021. Despite this, since 2021, 22% of parents/guardians considered that opportunities for PA in their local area had decreased. Only 10% believed there were enough free/low-cost opportunities for children and young people. Qualitative interviews revealed strong parental interest in such opportunities but highlighted limited awareness of what is currently available locally. **Conclusion:** Given the ongoing financial pressures on many families, these findings support the need for improved provision and highlight the requirement to better raise awareness of existing free/low-cost opportunities that support increased PA participation among children and adolescents.

Pitch and Putt Participation and Health Among Older Women: A National Survey from Ireland

Presenter: *Orla Flynn (UCD)*
Location: *Building 8: Mary Ward Centre*

Authors: *Orla Flynn[1,2], Catherine Blake[1,2], James Matthews[1,2], Kate Pumpa[1,2]*

[1] School of Public Health, Physiotherapy and Sports Science, University College Dublin
[2] Institute for Sport and Health, University College Dublin

Abstract:

Background: Golf is associated with physical, psychological, and social health benefits, yet older women often experience barriers to participation in traditional golf settings. Pitch and Putt is a shorter, more informal version of golf and may offer a more accessible and inclusive alternative. **Aim:** To examine the physical, psychological, and social benefits of Pitch and Putt participation among women aged ≥55 years in Ireland. **Methods:** A national cross-sectional survey (N = 122) collected data on demographics, participation history, motivations, physical activity, long-term health conditions, and perceived benefits of Pitch and Putt. Health status was assessed using the PROMIS-10 Global Health questionnaire. Open-ended questions captured experiences of participation. Quantitative data were analysed descriptively in SPSS and qualitative responses were examined using thematic analysis. **Results:** Participants had a mean age of 66 years and reported an average of 17.5 years of participation, typically playing three rounds per week. Key motivations included making new friends (n = 56, 45.9%), enjoyment of the sport (n = 52, 42.6%), and improving physical health (n = 40, 32.8%). PROMIS-10 scores indicated average physical health (T = 50.9) and slightly below average mental health (T = 45.1). One-third of respondents reported at least one long-term condition (n = 41, 33.6%); among these, 93% (n = 40) reported that Pitch and Putt helped them manage their condition. Qualitative themes highlighted social connection and belonging, emotional wellbeing, accessibility (short duration and local clubs), and affordability as key facilitators, while mobility limitations and limited seating were reported barriers. **Conclusions:** Pitch and Putt appears to be an accessible, community-rooted sport supporting physical activity and social inclusion among older women. Findings support its consideration within active ageing and women-in-sport initiatives.

Developing the Long-Term Conditions (LTC) Exercise Workforce in Ireland: The Emerging Role of the LTC Exercise Instructor

Presenter: *Ciara McCormack (Maynooth University)*
Location: *Building 8: Mary Ward Centre*

Abstract: As chronic disease prevalence continues to rise in Ireland, there is increasing recognition of the importance of exercise in prevention, rehabilitation, and long-term condition management. However, gaps remain between healthcare services and accessible community-based exercise support. The Long-Term Conditions (LTC) Exercise Instructor qualification, supported through the REPS Ireland framework, represents an important step in developing a skilled exercise workforce capable of safely supporting individuals living with stable chronic illnesses, including cardiovascular, respiratory, and metabolic conditions. This presentation will provide an overview of the LTC Exercise Instructor role, the accreditation pathway, and the importance of nationally recognised standards for exercise professionals working with clinical populations. It will also explore how this qualification aligns with evolving priorities within the HSE and Sláintecare, including integrated care, exercise referral, and community rehabilitation pathways. Finally, the presentation will discuss future opportunities and challenges relating to workforce development, clinical integration, and the expanding role of sport and exercise science professionals within healthcare in Ireland.

14:40 Panel Discussion – Sponsored by RYPT

Measuring What Matters: Practical Load Monitoring for Team Environments

Chaired By: *Bruce Wardrop (SETU Waterford)*

Panel: *Shane Malone (TU Dublin); Paul Talty (University of Salford); Paul McGrath (University of Lancashire); Ed Slattery (IRFU)*

Location: *Building 1: Main Building*

Proposition Statement: This panel proposes a practical, evidence-informed discussion addressing one of the most pressing challenges in contemporary team sport performance: how practitioners can meaningfully quantify internal and external training load in environments constrained by time, resources, and competing priorities. Despite advances in technology, confusion remains around what truly constitutes appropriate internal load monitoring, while many are over-focused on external load measures but still lack confidence in how these data should inform decision-making. Bringing together experienced practitioners and researchers from applied team sport settings, the panel will explore the gap between theory and practice in load monitoring. Discussion will focus on distinguishing external load from internal load, the strengths and limitations of commonly used tools (e.g. GPS, heart rate, subjective measures), and how practitioners can integrate multiple data streams into coherent, athlete-centred monitoring frameworks. A key emphasis will be placed on practicality: how to monitor without creating unsustainable systems, how to interpret physiological signals in noisy real-world environments, and how to translate data into actionable coaching decisions. Panel members will share real-world examples of monitoring systems that have been successfully implemented in elite and sub-elite contexts, highlighting lessons learned, common pitfalls, and strategies for refinement. The panel members feel that this discussion will benefit the Sport and Exercise Science community by providing clarity, challenging entrenched assumptions, and offering pragmatic solutions that enhance athlete health, performance, and availability. Attendees will leave with a clearer understanding of what should be measured, why it matters, and how to build monitoring processes that are both scientifically grounded and operationally realistic within team environments.

14:40 Workshop: Being a Brilliantly Inclusive Sport Psych: Attracting and Supporting Neurodivergent Participants

Presenter: *Josephine Perry (Performance in Mind)*
Location: *Building 8: Mary Ward Centre Upstairs*

Abstract:

Session: In this session we will build a deeper understanding of an athlete who is neurodivergent; how they are motivated, the strengths they can bring to a club or team and the areas where they may struggle. We will discuss 24 ways you can shape your practice to help these athletes thrive.
What will we do: The session will be active with no slides. The participants will be asked to get into groups of 4 and will be given a pack of cards. Each pack of cards will have traits that are commonly seen in neurodivergent athletes; some that can be very helpful in sport and physical activity (pattern spotting, risk-taking, hyper-focus for example) and some which can cause the participant, and their coaches difficulties (such as time optimism, rejection sensitivity, distraction or sensory overwhelm). The teams will be asked to consider which traits help most in their sports and which ones they struggle with the most and to put forward 2 traits each to discuss as a whole group so they can all develop more skills and strategies to support.
ADHD in Sport Some athletes with ADHD describe it as their superpower; seeing that the creativity, hyperfocus and speedy decision making amplifies their potential sporting success. Other athletes with ADHD find that narrative infuriating as they try to handle executive dysfunctions, emotional dysregulation and difficulties in focusing alongside the frustrations of trying to thrive in a sporting world that is not designed with their brain in mind. Dr Josephine Perry has recently published a book (ADHD in Sport: Strategies for Success) written with all these athletes in mind; from juniors starting out in school teams through to elites making their careers in professional sport and adults using sport to stay mentally regulated, maintain social connections and boost confidence. In this webinar she will bring to life key lessons from the book and offer advice and tools so you can support athletes with ADHD through their sporting journey.

15:20 Closing Panel – Sponsored by StatSports

Truth, Tech and Performance: Modern Challenges for Sport & Exercise Science

Chaired By: Bruce Wardrop

Panel: Sam Robertson, Nick Tiller, Niamh Ni Cheilleachair & Sharon Madigan
Location: *Building 1: Main Building*

Postgraduate Presentations and Poster Abstracts

Day 1 – Thursday 21st May 2026

11:40am - Postgraduate Presentations

Theme: Coaching, PE and Sport Pedagogy

Talent Identification in GAA Hurling Academies: Selection Practices and the Role of Biological Maturation

Student Name: *Kelvin Harold*
Location: *Building 1: Main Building*
Abstract No: *1*

Introduction: Talent identification (TI) is widely used in global sport, where selection decisions can determine access to high quality coaching and developmental support. Surveys have described TI practice in soccer academies[1] and evidence indicates coach decisions are often based on tacit knowledge or instinct[2]. In youth pathways, deselection and re-entry are common, but data on deselected or reselected players is limited[3]. TI practice within the Gaelic Athletic Association (GAA) in intercounty hurling academies, has not been researched. This study aimed to investigate current TI practices within intercounty hurling academies, with a focus on (i) selection, deselection and re-invitation processes and (ii) maturation recognition, monitoring and consideration. **Methods:** A cross-sectional mixed methods survey (42 questions) was completed by 50 male academy coaches (40.4 ± 10.0 years) from 12 counties all actively involved in selection/deselection decisions at U14-U16. The survey was adapted from a published soccer academy TI survey[1] and refined via expert review for content validity. Items captured entry routes, use and perceived importance of post invitation trials, deselection responsibility, re-invitation criteria and maturation recognition and monitoring. Quantitative data was analyzed using descriptive statistics and a Kruskal-Wallis test (Bonferroni-adjusted post hoc; ε^2 effect size) for between-age-group comparisons. Open-ended responses were analysed via qualitative content analysis. **Results:** Entry routes differed by age grade, moving from club nomination at U14 to continuity routes and management team preferences at U15/U16. Post invitation trials were common (76%) and generally rated at least important (86%). Only 40% of respondents reported using a formal document to support TI decisions. Deselection decisions were management led with variation in re-entry practices. Awareness of bio-banding was high but implementation only reported by a minority. Perceived importance of physical size differed significantly across age group coached, with higher ratings at U16 compared to U14 ($H(2)=7.89$, $p=0.019$; $\varepsilon^2=0.15$). **Discussion:** These findings suggest the further development of TI systems in hurling, using clear decision frameworks, longitudinal assessment and explicit maturation monitoring and bio-banding where appropriate[4]. The applied findings provide a practice context for the development and evaluation of a structured hurling specific profiling tool to support consistent multidimensional assessment over time.

Beyond Birthdates: Exploring Players and Coaches Perceptions and Experiences of Bio-Banding in a Gaelic Football Talent Academy

Student Name*: Fionn FitzGerald*
Location: *Building 1: Main Building*
Abstract No: *2*
Introduction: Bio-banding, which classifies athletes using estimates of biological maturation, has potential as a strategy to supplement chronological age grouping and support player development in team sports (Malina et al., 2019). However, research has predominantly bio-banded across age groups, with limited attention to single-age cohorts or sports beyond soccer (Cumming, 2018). This study explored Gaelic football players' and coaches' perceptions and experiences of bio-banded training and games compared to chronological age grouping. **Methods:** Under-14 players (n = 12) and coaches (n = 8) from a county Gaelic football talent academy participated in focus groups following a four-week bio-banding intervention. Data were analysed using thematic analysis to identify key themes. Rigour was promoted through the use of a critical friend and a reflexive diary. **Results:** Bio-banding created a distinct experience for players, influencing physical, technical/tactical and psychological demands compared with chronological age games. Bio-banding also broadened perspectives for player evaluation and development, enabling coaches to better assess potential and make more informed talent decisions. However, implementation considerations emerged, including practical, psychosocial, and educational factors influencing effectiveness. Players across maturity bands and coaches reported positive experiences by presenting new learning environments and challenges, highlighting the relevance of bio-banding even within a single-age cohort with substantial biological diversity. **Discussion:** Bio-banding offers a practical strategy to address maturity-related disparities and support equitable player development in Gaelic football by enabling skill expression and talent assessment. Bio-banding can be applied within a single age group, although its implementation warrants further investigation. Successful bio-banding depends on coach education, collaboration, and clear communication.

Where are the Female Athletes? Gendered Inequity in Pathways into Para Sport in Ireland

Student Name: *Alan Dineen*
Location: *Building 1: Main Building*
Abstract No: *3*
Introduction: Despite increased attention to Para Sport (PS), gendered inequities in entry to PS remain under-researched. Delayed engagement may reduce opportunity, narrow development time, and restrict progression within performance pathways. **Methods:** A mixed-methods design was employed including semi-structured interviews (n =18 [32% Female]) and an electronic survey (n=123[35% Female]) of PS athletes. An inductive–deductive approach was applied to qualitative data (Braun & Clarke, 2006). Descriptive statistics were generated for quantitative data. Integration of data types was achieved via joint display tables. **Results:** Female athletes with congenital disabilities entered at 21.2 years compared to 12.6 years for male athletes. For athletes with acquired disabilities, entry ages were similar across genders (~22 years). The pathways through which athletes were introduced to PS also differed between male and female participants: Female athletes were less likely than male athletes to be introduced to PS through siblings (2.3% vs 18.8%), schools (9.3% vs 25%), or rehabilitation professionals (11.6% vs 35%) ($p < .05$). Female athletes were most often introduced to PS via parents or friends and relatives (both ~28%). Male athletes were also more likely than female athletes to play PS in multiple settings

including in informal settings (39% vs 27.6%), multi-sports camps (22.4% vs only 7.3%) and school (11.8% vs 2.2%). Qualitative findings provide insight into barriers experienced by female athletes including barriers related to a lack of confidence, awareness of PS opportunities, and exposure to role models. **Discussion:** Female athletes experience significant delays and constrained entry to PS. These disparities carry long-term consequences for performance progression and retention. Addressing them may require gender responsive strategies, including enhanced PS visibility in schools, structured referral systems between rehabilitation hospitals and clubs, and increased representation of female role models. Creating earlier, more equitable access for females is essential to strengthening the inclusivity and developmental potential of the PS system.

Sex and Gender Experiences of Elite Female Gaelic Games Athletes

Student Name: *Sarah Doran*
Location: *Building 1: Main Building*
Abstract No: *4*

Introduction: The established lack of female-focused sports science research[1] has resulted in the adoption of male-derived training approaches, potentially overlooking the unique needs of female athletes[2]. Additionally, a gendered environment across sport is believed to influence performance and injury[3]. This study investigated the experiences of elite female Gaelic games athletes in relation to sex and gender-specific concerns, including breast, menstrual, and pelvic floor health, as well as their access to facilities and sports science and medicine practitioners. **Methods:** A modified Delphi approach[4], with a panel of experts (n=13), was used to develop a unique survey instrument of 76 open and closed questions across 7 sections: i) Demographics ii) Training Profile iii) Breast Health and Injury iv) Menstrual Health v) Pelvic Floor Health vi) Training and Support Environment vii) Previous Education and Future Directions. Elite female Gaelic Games Athletes were recruited for the survey through the Gaelic Players Association (GPA). **Results:** Responses from 480 participants (age 24.6 ± 4.6 years) indicated that amenorrhea (26.5%) and pelvic floor dysfunctions (65%) were prevalent. Both perceived health literacy (70% rated pelvic floor literacy as poor) and actual health literacy (52.7% did not know what hormones fluctuate during the menstrual cycle) were low. Access to practitioners was irregular, with 84.8%, 40.8% and 38.3% having no access to a medical doctor, psychologist, and nutritionist respectively. In turn, reporting issues to practitioners was low (19%). Training facilities lacked female-specific resources such as sanitary products (2.9%) and bins (7.9%), while 6.9% of respondents always had access to suitable pitch and gym facilities. The average age of first exposure to strength training was 19.2 ± 4.1 years old, with 29.2% having no weekly strength training sessions. Over three-quarters (77.5%) felt sex and/or gender impacted their experiences in sport. **Discussion:** Despite the prevalence of sex-specific issues, athletes had challenges around literacy and access to specialist support. This impacted awareness and reporting, potentially hindering treatment and prevention. Further, athletes had late exposure to strength training, and access to training facilities was inconsistent. Future research should focus on improving athlete health literacy and advocacy through co-designed educational approaches.

The Validity of a Novel Obstacle Course to Assess Primary School Children's Fundamental Movement Skills

Student Name: *Aoife Langford*
Location: *Building 1: Main Building*
Abstract No. 5

Introduction: Fundamental movement skills (FMS) are the building blocks for more complex and coordinated movements[1]. These skills can promote lifelong physical activity (PA) through movement competence[2]. Traditional assessments evaluating FMS (e.g. gold-standard Test of Gross Motor Development (TGMD-3)) are often static and time-consuming, highlighting the need for a dynamic, ecologically valid assessment to capture children's movement proficiency[3,4]. This study aimed to examine the criterion, convergent, discriminant and ecological validity of a novel obstacle course (OC) when compared to TGMD-3. **Methods:** Children aged 6-9-years-old (n=179, 46.9% female) completed two trials of the process-oriented TGMD-3 including the run, hop, jump, kick, catch, dribble, strike, underarm and overarm throws and the OC, which assesses these skills through their application in a dynamic series of tasks. Weekly PA levels were established through a self-reported questionnaire. Criterion validity was examined using correlations, regression analyses and classification agreement (specificity, sensitivity, κ) of scores, subscales and skills. Convergent and discriminant validity were assessed through correlations between corresponding and non-corresponding skill domains. Ecological validity was evaluated through associations between OC performance and weekly PA levels. **Results:** The OC and TGMD-3 score categories were moderately-strongly correlated (r=0.52-0.72, p<.001). Corresponding skills were moderately correlated (r=0.17-0.56) and non-corresponding skills were lower (r=-.002-0.27). Sensitivity of individual skills ranged from 47.5-84.6% with specificity between 19.9% and 79.6% (κ=.02-.46) Regression analyses showed that OC ball skills strongly predicted TGMD-3 ball skills (R^2 = 0.51, p<.001) with locomotor skills showing moderate associations (R^2=0.28 p<.001). OC scores were positively associated with weekly PA levels (β=.23-.42, p<.001). **Discussion**: Results indicate moderate-to-strong criterion validity of the OC, and mixed but supportive evidence for convergent, discriminant, and ecological validity. The OC slightly overclassifies skill mastery, likely because the OC only has 2-3 criteria per skill. Some corresponding skills had low correlations between OC and TGMD-3 assessments, possibly due to OC's obstacle-based tasks differing from TGMD-3. Overall, the OC demonstrates its potential as a dynamic, time-efficient alternative assessment of children's FMS. Future research should examine the OC performance across broader populations, its construct, content and face validity and potential use of layered criteria.

Theme: Physiology and Nutrition

Knowledge and Awareness of Relative Energy Deficiency in Sport (REDs) among Key Rugby Stakeholders: An International Survey

Student Name: *Tabitha Billingham*
Location: *Building 7 - Engineering*
Abstract No: *6*

Introduction: Relative Energy Deficiency in Sport (REDs) is traditionally associated with endurance, aesthetic, and weight-restricted sports; however, emerging evidence suggests it is also prevalent in team sports, such as Rugby [1]. Limited understanding of REDs among Rugby players, and athlete support personnel (ASP) may delay recognition and intervention, increasing the risk and severity of possible adverse outcomes. This study investigated knowledge and awareness of REDs among Rugby players and ASP. **Methods:** A survey was developed, piloted, and internationally disseminated online to current Rugby players (league, 15s, and 7s) and ASP (Rugby coaches, strength and conditioning coaches, physiotherapists/athletic trainers/physical therapists, sports doctors, nutritionists/dieticians, psychologists, and medics), capturing demographic data, familiarity with the term REDs, and knowledge of REDs health and performance outcomes using a 21-item quiz. Data were collected via Qualtrics and analysed using SPSS statistics (Version 30). **Results:** Between May and November 2025, 180 Rugby players

(52.2% male) and 107 ASP (77.6% male) responded to the survey. Familiarity with the term REDs was low, with 63.9% of players and 32.7% of ASP reporting no familiarity with the syndrome. Despite this, knowledge of REDs health and performance outcomes was moderate, with mean quiz scores of 15.3 ± 4.6 and 16.8 ± 4.2 out of 21 for players and ASP, respectively. Sleep disturbance was the most frequently recognised health outcome (players 93.6%, ASP 96.2%), whilst urinary incontinence was least recognised (players 45.7%, ASP 31.4%). Impaired endurance capacity was the most recognised performance outcome in both groups (93%). Poor recovery was the least recognised performance outcome by players (81.5%), whereas decreased motivation was least recognised by ASP (86.7%). **Discussion:** This study identified limited familiarity with the term REDs among Rugby players and ASP, despite greater awareness of its associated health and performance consequences. A similar pattern of low familiarity but greater outcome awareness has been reported among artistic gymnasts [2], alongside comparable knowledge of REDs outcomes in other sporting cohorts [3]. However, familiarity with REDs in Rugby appears significantly lower than in endurance athletes and ASP [4]. Future research should prioritise the development, implementation, and evaluation of a Rugby-specific REDs educational tool.

From Pitch to Plate: Amateur Rugby Players' Views on Nutrition Strategies for Concussion Recovery

Student Name: *Rachel Moloney*
Location: *Building 7 - Engineering*
Abstract No: *7*

Introduction: Incidence of sport-related concussion (SRC) is increasing among collision-sport athletes such as rugby players[1]. Concussion triggers a complex neurometabolic cascade and inflammatory response that can lead to alteration of brain function and energy deficits[2] that can affect recovery if not adequately managed. n-3 polyunsaturated fatty acids, often referred to as omega-3 fatty acids, have anti-inflammatory and neuroprotective properties and may improve symptoms and serve as prophylactic or preventative treatment in concussion[3]. Examining players' attitudes, beliefs and knowledge about nutrition for concussion recovery alongside the current nutrition practices they use, is important for informing the development of targeted, evidence-based guidelines and tools to optimise SRC management and recovery. **Methods:** Fifteen male amateur rugby players (≥18 years of age) currently playing rugby in the Republic of Ireland were interviewed on their attitudes and beliefs about nutrition for concussion and the nutrition strategies used for management and recovery of SRC via one-on-one interviews. All interviews were transcribed verbatim and were analysed inductively using a reflexive thematic analysis approach, as described by Braun and Clarke4. **Results:** Findings indicate limited knowledge of the role of nutrition for concussion management and recovery among players, management and support staff. Players use nutrition strategies for recovery from physical injury. Lack of knowledge impacts nutrition behaviours for SRC recovery. Players' environment influences behaviour. With nutrition support rarely resourced, players use S&C trainers and rugby coaches as trusted sources for nutrition advice. Even when nutritionists are accessed, they also lack specific knowledge of specific nutrition protocols for SRC. **Discussion:** This research highlighted several factors that may limit the implementation of nutrition strategies for SRC management and recovery. Players' nutrition behaviours were influenced by their own lack of knowledge and by their environment. Nutrition is poorly resourced in amateur clubs, leading to reliance on nutrition advice from unqualified support staff. Medical professionals also lack specific SRC nutrition knowledge, further impacting nutrition behaviours. Evidence-based education and CPD modules focused on nutrition specific to SRC management and recovery should be developed and consistently integrated to bridge the gap between knowledge and practice and to optimise players' recovery.

An Investigation into the Sleep Behaviours of Elite Athletes and Support Staff in Ireland

Student Name: *Gavin Rackard*
Location: *Building 7 - Engineering*
Abstract No: *8*

Introduction: Sleep is essential for recovery and performance in elite sport, yet disturbances are reported among both elite athletes and support staff. Despite their shared exposure to demanding schedules, travel and stress, little research has directly compared sleep quality between these interdependent groups. This study investigated the prevalence and characteristics of sleep problems in elite athletes and high-performance support staff in Ireland. **Methods:** A cross-sectional online survey was completed by 118 participants (79 elite athletes; 39 support staff). Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI) and the Athlete Sleep Screening Questionnaire (ASSQ). **Results:** Poor sleep (PSQI global score ≥ 5) was prevalent in both elite athletes (75.9%) and support staff (76.9%). No significant differences were observed between groups in PSQI global scores ($p = 0.488$) or ASSQ Sleep Difficulty Scores ($p = 0.171$). Support staff reported a significantly shorter sleep duration (6.96 ± 0.97 h) than athletes (7.39 ± 0.85 h; $p = 0.02$). Support staff reported (06.44 ± 72 mins) a significantly earlier time to get up in the morning than athletes (07.22 ± 71 mins; $p = 0.01$). The ASSQ reported significantly longer habitual sleep durations ($p = 0.027$) and more frequent napping ($p = 0.007$) in athletes. **Discussion:** Suboptimal sleep existed in both groups and was comparable between athletes and support staff. Staff may be particularly vulnerable to reduced sleep duration due to extended working hours. Conclusion: Interventions to specifically address sleep latency, satisfaction and duration are warranted across all roles in high-performance sport.

Investigation of Weight Making Experience and Perceived Performance Across Menstrual Cycle Phases for Female Athletes and their Coaches.

Student Name: *Maeve Mannion*
Location: *Building 7 - Engineering*
Abstract No: *9*

Introduction: Weight category sport (WCS) athletes frequently compete in a weight category lower than their day-to-day weight. Weight manipulation presents challenges for female WCS athletes, due to weight fluctuations and symptomology across the menstrual cycle (MC) This study aimed to investigate weight making experience and perceived performance across MC phases in weight category female athletes and WCS coaches of female athletes. **Methods:** Weight making experience and perceived performance was identified using semi-structured interviews. Athletes were female, aged between 18-45 years, naturally menstruating and competing in a WCS for at least one year. Coaches were 18 years or older and coached in a WCS for at least one year. Athletes and coaches were interviewed separately. Interviews were analysed using reflexive thematic analysis. **Results:** Sixteen athletes (powerlifters (n=13) and combat (n=3)) and 12 coaches (powerlifting (n=8), Olympic Weightlifting (n=2) and combat athletes (n=2)) participated. Analysis identified three main themes: Weight-Cutting Approach, Performance Variations and Cultural & Educational Gaps. Athletes identified stressful weight making experience due to weight fluctuations at different MC phases. Athletes and coaches reported perceived changes in performance across the MC. Athletes and coaches reported a lack of education on MC knowledge. **Discussion:** Coaches and athletes prefer a more conservative approach to weight making. Coaches and athletes identified variations in perceived performance across MC phases. As the nature of this study is qualitative, future research could take a quantitative approach identifying the relationship between the MC status and weight making.

Physiological Characteristics of Master Athletes: Systematic Review and Meta-Analyses

Student Name: *Gaspar Alfonso Meira*
Location: *Building 7: Engineering*
Abstract No: *10*

Introduction: Ageing is associated with loss of aerobic capacity, muscle mass, and power, affecting health and independence (McKendry et al., 2018). Master athletes, who maintain structured training into older age, offer a unique model to examine ageing relative to sedentary or younger subjects (Lepers & Stapley, 2016). However, the extent to which lifelong endurance or strength training attenuates age-related differences across physiological domains remains unclear. This systematic review addresses the following question: To what extent do endurance- or strength trained master athletes differ from age-matched sedentary adults and younger trained or untrained individuals? Accordingly, this review aims to compare the physiological characteristics of i) master endurance-trained and ii) master strength-trained athletes with age-matched sedentary adults, untrained individuals, and younger endurance- or strength-trained individuals using within-study cross-sectional comparisons. **Methods:** Review protocol was registered at Open Science Framework (OSF; https://doi.org/10.17605/OSF.IO/BFK6C). Databases search included SPORTDiscuss, Pubmed, EMBASE, and Ovid. Inclusion criteria: i) Within study comparison of master athletes (≥59 years; Tiers 3-5), with older (≥59 years) or younger (18-40 years) trained or untrained adults (Tiers 0-4); ii) At least one outcome measure of aerobic performance, muscle morphology, strength, lean mass, or power; iii) Published between 1980 and 2025; iv) Interventional, longitudinal, or cross-sectional designs. Data extraction will be performed using Rayyan. Risk of bias will be assessed using ROBINS-I. Random-effects meta-analyses will estimate standardized mean differences (95% CI) across domains. Heterogeneity will be assessed using I^2. **Results:** Meta-analyses will quantify standardised mean differences for pairwise comparisons between endurance-trained or strength-trained master athletes and comparator groups across outcome measures. We hypothesize that endurance- and strength-trained master athletes will exhibit greater aerobic capacity, strength, lean mass, and power than age-matched sedentary adults. Compared with younger groups, both master athletes' groups are expected to demonstrate physiological characteristics that fall between young trained and young untrained individuals. Modality-specific differences are anticipated, with endurance-trained masters demonstrating greater aerobic outcomes than age-matched controls, and strength-trained masters exhibiting greater muscle-related outcomes. **Discussion:** Findings will characterize physiological characteristics that differentiate effects of maintenance of structured exercise training from chronological ageing, providing insight into the physiological domains that retain adaptability during ageing.

Theme: Sport Psychology

Beyond the Finish Line: A Qualitative Exploration of Stressors, Coping Strategies, and Support Needs in Irish Horse Racing.

Student Name: *Georgia Tobin*
Location: *Building 8: Mary Ward Centre*
Abstract No: *11*

Introduction: Horse Racing in Ireland significantly contributes to the Irish economy, with a direct economic impact of €1.22 billion in 2022, employing over 30,000 people1. There are currently 514 registered trainers and approximately 3000 stable staff in Ireland. Previous research high levels of mental health challenges among stable staff and trainers, with up to 80% suffering from stress, anxiety, and depression2 & 3. Recent Irish research found that 69% of trainers and stable staff met the criteria for at least one common mental disorder. **Methods:** A qualitative design was employed using semi-structured interviews conducted via Zoom with trainers and stable staff in Ireland. The interview guide, informed by findings from a previous study, explored work demands, workplace culture, leadership, wellbeing, sleep, coping behaviours, and awareness of support services. Interviews lasted approximately 45-60 minutes, were audio-recorded, transcribed verbatim, and analysed using thematic analysis. Analysis is underway on 14 interviews, with a planned sample of 24 (12 trainers & 12 stable staff).
Results: The preliminary results of the thematic analysis identified four key themes; barriers to help-seeking, service needs, workplace culture and realities of working in racing. Each theme comprised two subthemes, reflecting shared experiences across participants. **Discussion:** Preliminary findings highlight a critical need for mental health support within the Irish horse racing industry. Trainers and stable staff face unique workplace stressors that differ from those in other sectors. Awareness of existing services was low, and participants expressed a clear need for accessible, industry specific supports. Suggested strategies included increasing the visibility of services with posters and digital campaigns in yards, establishing confidential support channels tailored to the unique culture of the racing industry and providing training for stable staff and trainers on stress management, coping strategies and mental health literacy.

Thoroughbred Tales: Exploring Stressors, Wellbeing, and Coping in Thoroughbred Breeders and Stud Workers

Student Name: *Claire McDonald*
Location: *Building 8: Mary Ward Centre*
Abstract No: *12*

Introduction: Previous research in the Thoroughbred horseracing industry suggests that occupational risk factors negatively influence mental health and wellbeing of workers. Breeders and stud workers are responsible for producing racehorses and are therefore fundamental to racing performance. This ongoing study aims to explore sources of stress, wellbeing, and coping strategies in breeders and stud farm staff, underpinned by PERMA wellbeing theory (Seligman, 2011). **Methods:** Semi-structured interviews are being conducted to explore occupational stressors, wellbeing, and coping in Thoroughbred breeders and stud workers. Perceptions of and preferences for mental health supports are also being investigated. Using reflexive thematic analysis, interview data are first inductively analysed, then deductively mapped to the PERMA framework. **Results:** Preliminary results suggest that horse breeding work carries both strong fulfilment and significant strain, influencing wellbeing both positively and negatively. Participants describe infrequent income tied to seasonal sales, long work hours, and social isolation as key challenges. A perceived industry stigma remains a barrier to mental health help-seeking. Despite

these challenges, participants report strong pride in producing successful racehorses, and identify working outdoors with horses as important sources of physical and mental wellbeing. Current coping strategies include social support, physical activity, and prioritising rest. Participants highlight a need for increased mental health awareness, and accessible, industry-specific supports. **Discussion:** This is the first qualitative study to assess occupational stressors and coping in Irish Thoroughbred breeders and stud staff. The research builds on previous quantitative findings on mental health and occupational risk factors in Thoroughbred breeding. It aims to provide rich insight into sources of occupational stress and wellbeing, as well as coping strategies utilised by a notably understudied but essential workforce within Irish racing. Findings will inform the development of tailored mental health supports for the Thoroughbred horse breeding industry.

An International mixed-methods study on the mental health, well-being, and coping strategies of professional jockeys based in Ireland and Great Britain

Student Name: *Katie O'Farrell*
Location: *Building 8: Mary Ward Centre*
Abstract No: *13*
Introduction: Research among Irish jockeys has identified a high prevalence of mental health issues (King et al., 2021; Losty et al., 2019), with burnout, career dissatisfaction, and retirement contemplation emerging as significant independent predictors of psychological distress and generalised anxiety (King et al., 2021). No comparable studies on jockeys based in Great Britian (GB) have existed until now. The aim of the study was to examine the mental health, well-being, and coping strategies of professional jockeys licensed in Ireland and Great Britain across both racing codes. **Methods:** An online anonymous questionnaire through Qualtrics was used to gather quantitative information on the lifestyle and occupational behaviours, common mental health disorders (CMDs), associated risk factors, and coping strategies of Irish and GB professional jockeys. Descriptive statistics were produced for all assessed measures, and prevalence and associated risk factors were calculated. Binary univariate logistic regression expressed as odds ratios, and 95% confidence intervals, were conducted to determine associations between CMDs, potential risk factors, and demographic and lifestyle characteristics. **Results:** Forty three percent of participants met the criteria for at least one CMD, 30% for two or more CMDs, and 21% for three or more CMDs. Over half of jockeys reported moderate-high stress levels, while 16% met the criteria for career dissatisfaction. Perceived social support was moderate overall (M = 40.54). GB jockeys reported higher mean scores across all CMD measures, however, they also exhibited marginally greater levels of mental well-being (M = 45.16) relative to their Irish counterparts (M = 44.94). No statistically significant between-group differences were observed, indicating comparable psychological functioning across cohorts. **Discussion:** This study exhibits higher levels of depressive symptoms and psychological distress than previous research, while anxiety levels have decreased (King et al., 2021). When examined by region, prevalence estimates between Irish and GB jockeys varied slightly, with Irish jockeys consistently reporting lower prevalence of CMDs, and higher levels of support across all domains, than British jockeys. In the future, industries should prioritise integrating athlete-centred mental health supports as a core component of performance and well-being systems within the sport.

An Investigation of Traumatic Stress Symptoms in Ukrainian High-Performance Athletes

Student Name: *Máiréad Foy*
Location: *Building 8: Mary Ward Centre*
Abstract No: *14*

Introduction: On February 24th, 2022, Russia's invasion of Ukraine resulted in widespread casualties (IOMUN Migration, 2024). The ongoing conflict has negatively impacted the Ukrainian populations' overall well-being and life satisfaction, leaving many people feeling unprotected and insecure (Pavlova et al., 2023). War-induced stress and anxiety can impair athletes' performance by disrupting attentional control, a cognitive process that is essential for optimal performance under pressure (Pachón-Blanco et al., 2022). Evidence suggests that adult populations in Ukraine are currently experiencing multiple war-related stressors and demonstrate symptomatology consistent with post-traumatic stress disorder (PTSP) (Krupelnytska et al., 2024). **Methods:** The study involved 29 Ukrainian athletes and coaches (16–44 years), representing a mix of genders, sport disciplines (team sports, water sports, martial arts, archery, gymnastics, modern pentathlon), and levels of sport (regional to Olympic). Trauma and stressor related symptoms were assessed using the Impact of Event Scale-Revised (IES-R), across three symptom clusters, hyperarousal, intrusion and avoidance (Weiss, 2007). **Results:** Data analysis is currently ongoing. However, it is hypothesised that athletes will exhibit significant traumatic stress symptoms. Furthermore, female athletes are expected to report significantly higher levels of traumatic stress symptoms, as well as higher scores across the three symptom clusters, compared with their male counterparts.

Day 2 – Friday 22nd May 2026
11:15am- Postgraduate Presentations
Theme: Athletic Therapy, Sports Medicine & Biomechanics

Profile of non-contact injuries in schoolboy Senior Cup and men's club rugby across match and training contexts.

Student Name: Sarah Willis
Location: *Building 7 - Engineering*
Abstract No: *15*

Introduction: Non-contact injuries are a growing concern and potentially preventable source of time-loss in rugby; however, surveillance research that directly compares youth and adult cohorts and differentiates between match and training exposures remains limited. Using primary data from the Irish Rugby Injury Surveillance (IRIS) project, this study reports the epidemiology of non-contact time-loss injuries in schoolboy Senior Cup and men's club rugby, with injuries categorised by playing position, to identify context-specific targets for evidence-based prevention. **Methods:** Injury data were extracted from the IRIS database for sixteen Senior Cup schools and thirty-two men's club teams, with injury definitions and data collection aligned to World Rugby and International Olympic Committee consensus statements on rugby injury surveillance. Match injury incidence was calculated as injuries per 1,000 playing-hours, whereas training injuries were described using counts and percentages because consistent exposure data was unavailable; outcomes included injury location, type, severity (time-loss days), playing position, match quarter or training occurrence and analysed using Power BI software. **Results:** Across both cohorts, non-contact injuries predominantly affected the hamstring, ankle and knee, with hamstring accounting for 42% of schoolboy match non-contact injuries and 51% of men's match non-contact injuries. Match data showed that non-contact injuries were more common in later quarters, occurring most frequently in schoolboy quarter 3 (28%) and men's quarter 4 (32%) concentrated in high-load activities, with schoolboy non-contact injuries peaking in conditioning drills (19%), and men's non-contact injuries most often occurring during speed drills (28%). The positional analysis of non-contact injuries was greatest at full back across both cohorts, accounting for 16% of schoolboy match and 13% of men's match injuries, with additional training burdens at inside centre in schoolboys (10%) and full back in men's training (10%), and most non-contact injuries in both cohorts were classified as moderate or severe time-loss. **Discussion:** These findings demonstrate that non-contact injuries in both cohorts are frequent, predominantly hamstring, and moderate-severe, reinforcing their importance as a prevention priority. The concentration of injuries in specific positions, match and training activities suggest that targeted load management and strength and conditioning interventions could reduce the burden of non-contact time-loss injuries across all age groups.

Sex Differences in Brain Structural Alterations Following Mild Traumatic Brain Injury

Student Name: *Shanika.Arachchi*
Location: *Building 7: Engineering*
Abstract No: *16*

Introduction: Mild traumatic brain injury (mTBI) affects an estimated 42 million people worldwide each year[1]. Sex and age are among the most influential patient-specific factors shaping symptom presentation, diagnostic accuracy, and post injury recovery trajectories in mTBI[2]. Increasing evidence shows that key physiological characteristics of brain tissue such as white matter (WM), grey matter (GM), and cerebral blood flow (CBF) differ substantially between males

and females[3,4]. For example, approximately 30% of white matter regions of interest demonstrate significant sex related differences[3]. These inherent neurobiological distinctions may influence both vulnerability to injury and post injury outcomes. Given these considerations, the present study aims to characterise sex based structural differences in the brain following mTBI. Understanding these distinctions may contribute to more precise, personalised approaches to diagnosis and treatment. **Methods:** Magnetic Resonance Images (MRI) scans from six patients (3 males and 3 females) with mTBI (Glasgow coma scale 13-15) were analyzed to assess structural variations in brain tissues following injury. T1-weighted MRI scans were assessed for GM, WM, cerebral spinal fluid (CSF), and the total intracranial volume (TIV). Voxel-based morphometry was used to extract the volumetric measures for each tissue class. These values were compared between male and female patients to identify sex related structural differences following mTBI. **Results:** Preliminary MRI derived volumetric data indicate that female patients exhibited greater white matter alterations and reduced cerebral blood flow (CBF) following mTBI compared to male patients. In contrast, brain parenchymal fraction values, normalised using TIV, did not show notable deviations from previously reported normative findings for males and females. **Discussion:** The human brain undergoes measurable structural changes following mTBI. While the mechanism of injury is central to these alterations, patient specific factors such as sex play an important role in influencing injury severity, symptom presentation, and recovery trajectories. This preliminary research has shown that neuroimaging offers a valuable, objective means of detecting these structural changes. Developing patient-specific models may enhance diagnostic accuracy and inform more targeted treatment strategies. Such approaches could ultimately help reduce long term risks, including the potential development of neurodegenerative conditions among individuals affected by mTBI.

The path less travelled: A mixed methods approach to defining the activity of hiking & hikers' behaviours, injuries, footwear choices and movement patterns.

Student Name: *Kristian Jocher*
Location: *Building 7: Engineering*
Abstract No: *17*

Introduction: Hiking is associated with well established physiological and psychological health benefits. The primary mechanism of injury in hiking is slips, trips, and falls; however, strategies aimed at injury mitigation remain underrepresented.[1,2] In sports medicine, injury is depicted in part as time loss from activity.[3] Therefore, injury may negatively affect adherence to hiking, reducing exposure over time and potentially diminishing the accumulation effect of health benefits.[4] This body of work aimed to define the activity of hiking, explore hiking behaviours and injury, and examine how footwear choice may influence injury risk and movement patterns. **Methods:** Study 1 identified the need for a specific definition of hiking to inform inclusion and exclusion criteria in subsequent studies, applying a novel framework to systematically develop a functional definition. Study 2 (n = 231) characterised hiker demographics, hiking behaviours, injury, and footwear habits using a 43 item cross sectional questionnaire. Study 3 (n = 21) assessed walking gait under four shod conditions using pressure (N/cm^2), centre of pressure, and ground reaction forces (N), using the Footscan v9.0. **Results:** Study 1 defined hiking as "a form of long distance walking (≥ 3 km) that typically takes place in a natural environment on varying terrain, whereby intensity may fluctuate between light and vigorous." This definition informed inclusion criteria of studies 2 and 3, visibly influencing participation in Study 2. Study 2 demonstrated consistent hiking participation across ages and genders during spring, summer, and autumn, with reduced participation in winter. Lower injury rates were observed among hikers using a combination of minimalist and traditional footwear ($p < .05$), when compared to exclusive use of

either footwear type. Preliminary analyses from Study 3 showed no significant gait differences between barefoot habituated, traditionally shod habituated, and acutely minimalist shod conditions; however, acute exposure to a new traditional style shoe resulted in statistical differences across anatomical sites. **Discussion:** Collectively the findings of these studies act as a foundation to hiking injury mitigation research. This work defines each of the following: hiking, hiking behaviours, hiking injuries and how footwear choice affects movement patterns in hikers, and suggests further investigation of footwear's role in hiking injury prevention.

The Optimal Load for Power Output during the Bench Press and Squat in Female Athletes

Student Name: *Levi Walsh*
Location: *Building 7: Engineering*
Abstract No: *18*

Introduction: Training at the optimal load (OL) for maximum muscular power output is theorised to improve chronic muscular power adaptations2, making it of interest for practitioners aiming to optimise the power outputs of their athletes. Previous research has focused primarily on male athletes, leading to a lack of female inclusion in studies, despite research suggesting the OL differs between sexes1,4. **Methods:** Eleven female rugby union players attended 2 testing sessions, separated by 5 days, which involved performing a 1-repetition maximum (1RM) in the squat and bench press in session 1. Session 2 consisted of performing 3 repetitions at loads of 30-70% 1RM, in 10% increments and in a randomised order, for both exercises. Barbell power outputs were measured using a GymAware linear position transducer. A 2×5 RM-ANOVA was conducted to determine significance between exercises and loading conditions. Statistical significance was set at $p \leq 0.05$. Quadratic regression analysis was also conducted to identify an individual OL for each athlete and generate a mean and standard deviation. **Results:** Load had a significant effect on peak and mean power in each exercise with large effect sizes ($p < 0.001$, $\eta p^2 = 0.81$-0.83). Peak and mean power in the squat were maximised at 70% 1RM and were significantly greater ($p < 0.05$) than 30-40% 1RM. Power output in the bench press was found to maximise at 40% and 50% 1RM based on peak and mean power, respectively. Quadratic regression analysis resulted in OL findings of 77.14 ± 15.35% 1RM in the squat and 52.26 ± 19.02% 1RM in the bench press, based on mean power. **Discussion:** Despite a significant effect of load in both exercises, the load which maximised power was not uniform between exercises. This highlights the variation in OL and necessity to identify it across different exercises. Another key finding was the larger variance in the OL among female athletes, when compared to male athletes3, likely caused by lower absolute strength1. These findings suggest that female athletes aiming to maximise muscular power output should train at ~ 50% and > 70% 1RM in the bench press and squat, respectively.

Golf Swing Performance and its Relationship with Biomechanical Loading Variables: A Systematic Review

Student Name: *Sarah Wallace*
Location: *Building 7: Engineering*
Abstract No: *19*

Introduction: Golf performance and its relationship with golfer's lower limb biomechanical variables has not been summarised in reviews currently. Reviewing these relationships will aid practitioners with choosing appropriate intervention exercises, enhancing performance and decreasing injury risk2. Biomechanical relationship studies tend to have limited sample sizes, therefore alternative methodologies are necessary. The objective of this review was to analyse

golf performance (e.g. club head speed (CHS), ball speed, distance) during the driving and hybrid-iron swing, and its relationship with knee and hip biomechanical variables. **Methods:** This systematic review was carried out in accordance with the PRISMA 2020 guidelines. SPORTDiscus, PubMed, Web of Science, and CINAHL were searched up to December 2024 for studies that: (1) involved non-injured golfers; (2) reported a correlation (e.g. correlation coefficient) between golf swing performance and knee and hip joint torques/moments, joint angles, and ground reaction forces; (3) conducted a 3D biomechanical analysis throughout the driving and/or hybrid-iron swing. Correlation coefficient thresholds recommendations of 0.1-0.29 (small), 0.3-0.49 (moderate), 0.5-0.69 (large), 0.7-0.89 (very large), and 0.9 or above (near perfect) were followed in this review3. **Results:** The search strategy retrieved 3,557 studies, with two studies meeting the inclusion criteria. Three additional studies were included from forward and backward citations. Scores of 7/10-9/10 were achieved for included studies risk of bias, via the Downs and Black (modified) tool1. Participants included were male and female golfers, ranging in age from 17-62 years, and consisted of professionals and elite amateur golfers (n=77; handicap≤4), and low- to high- handicap amateurs (n=56; handicap: 0-36). Driving CHS had a very large, significant relationship with adduction/abduction peak moment of the lead knee (r=-0.85, p=0.002) in male PGA professionals (n=10). **Discussion:** Golf performance shows small to very large correlations with hip and knee joint biomechanical variables, with the most notable correlation between driving CHS and lead knee peak adduction/abduction moment. One study included female golfers in their biomechanical analysis and similarly, the biomechanical variables of senior golfers were investigated in one study only. Future research should address these limitations. This review can aid practitioners in developing interventions to enhance golf performance.

Theme: Physical Activity & Health

Postmenopausal Women's Knowledge and Experiences of Physical Activity Guidance in Ireland

Student Name*: Rita Trentz*
Location: *Building 8 - Mary Ward Centre*
Abstract No: *20*

Introduction: Menopause represents a major life transition, and women may spend 30–40% of their lives in post-menopause (1). During this stage, women face increased risk of cardiovascular disease, metabolic syndrome, and osteoporosis (2). Physical activity (PA) is widely recommended to support long-term health and quality of life (3); however, many women in Ireland do not meet PA guidelines, with participation declining after age 50 (4). The aim of this study was to examine postmenopausal women's knowledge of PA guidelines and the receipt, source, and nature of PA advice. **Methods:** This cross-sectional study formed part of a broader mixed-methods survey exploring PA attitudes and experiences among postmenopausal women in Ireland. An online survey was distributed via email and social media to women self-identifying as postmenopausal (≥12 months amenorrhea). Seven items assessed PA knowledge and advice. Knowledge was measured through familiarity with PA guidelines and correct identification of recommended aerobic and strength levels. Advice was assessed by reported receipt of PA guidance during peri- or postmenopausal and its source. Quantitative data were analysed using descriptive statistics in SPSS, and qualitative responses underwent content analysis. **Results:** A total of 630 postmenopausal women complete the survey (47% aged 61-70 yrs).Self-reported familiarity with PA guidelines was (65.2% and 8.9% for somewhat and very familiar, respectively). Objective knowledge was limited with only 27.0% correctly identifing aerobic PA recommendations and 29.5% identifying muscle-strengthening guidelines. Attitudes towards PA were positive with

97.7% participants rating PA as very or extremely important. Only 24.9% reported receiving PA advice from a healthcare professional, although 68.6% agreed that healthcare professionals should discuss PA during menopause. Information was most commonly sought from healthcare professionals (48.3%), friends (30.5%) and social media (24.5%), Among those who received advice (n = 157), open-ended responses indicated that recommendations were frequently general and non-specific (e.g., "keep active"), with few reporting structured or tailored guidance. **Discussion:** Despite positive attitudes, knowledge of PA guidelines was limited. Few women reported receiving structured advice from healthcare professionals, and guidance was often general. These findings highlight the need for clearer communication and more proactive PA promotion for postmenopausal women.

Exploring Adolescent Girls Perceptions of a School-Based Tailored Teen Dance Intervention

Student Name*: Sarah Dillon*
Location: *Building 8 - Mary Ward Centre*
Abstract No: *21*
Introduction: Physical activity (PA) levels decline significantly as adolescent girls transition from primary to post-primary school, a trend reflective of perceived barriers such as not feeling "sporty," limited belonging within traditional sports, societal pressures, and limited opportunities [1–3.] In contrast, dance has been identified as an activity that girls enjoy, supporting engagement and motivation, and is recognised as the third most popular activity among adolescent girls in Ireland [1,2]. Evidence suggests that providing activities aligned with girls' interests can enhance participation [4]. The aim of this study was to explore adolescent girls' perceptions and experiences of a tailored teen dance program to better understand its perceived value and relevance. **Method:** Focus groups were conducted with adolescent girls following their participation in a pilot school-based teen dance intervention to investigate their experiences and perceptions of the program. Discussions followed a semi-structured guide and explored participants' experiences, perceived benefits, barriers to adherence, and suggestions for improvement and scalability [3]. All discussions were analysed using content analysis. **Results:** A total of 27 girls participated in the three focus groups ranging from 26-34 minutes. Five key themes that were identified. 1) Benefits and Peer Support, 2) Autonomy and Choice, 3) Feelings of Success, 4) Inclusivity, 5) Recommendation's. **Discussion:** Girls highlighted enhanced benefits through social connectedness and peer support, alongside increased autonomy through opportunities for choice and input within the sessions. Feelings of success were reported through skill development, goal setting, and tracking progress. The inclusive and supportive environment of the program was identified as crucial to engagement and confidence. This aligns with findings, which reported that girls are more likely to engage in PA when programs prioritise enjoyment, peer support, opportunities for choice rather than competitive activities [2,4]. However, practical barriers arose, especially lunchtime scheduling, and limited attendance for students. Recommendations included extending the duration of the programme and adjusting timing to optimise participation. **Conclusion:**The findings suggest that a dance based, non-competitive intervention can optimise social connectedness, autonomy, and behaviour towards PA among adolescent girls. The program was positively received and aligned with the girl's preference for non-competitive and socially supportive forms of PA.

Health Literacy and Physical Literacy in Community Initiatives: Insight from Community Leaders

Student Name: *Maeve Murray*

Location: *Building 8 - Mary Ward Centre*
Abstract No: *22*
Introduction: Health literacy (HL) is a relational concept and one's ability to know and use health information and make informed decisions about health. Good HL levels support positive health behaviours 1,2 whereas low HL can follow a social gradient, potentially reinforcing existing health inequalities. Physical literacy (PL), known as the motivation, confidence, physical confidence, knowledge and understanding that enables a person to value and take responsibility for engaging in physical activity throughout their life 3, may serve to connect physical activity, wellbeing, and long-term health outcomes. Similarly to HL, PL can be modified across a person's life and is influenced by the surrounding environment in which they live. Through integrating HL and PL there is potential to enhance societal impact 4. This study therefore viewed how one's environment or the system they are contained within can lead to a better evaluation of the development of health and wellbeing 5–7. **Methods:** Leaders of health and wellbeing initiatives delivered in one underserved urban community were recruited to participate in one semi structured interview. Interviews were recorded, transcribed verbatim and checked by the researcher (MM) for accuracy. Transcriptions were uploaded to NVivo and data was analysed using a deductive thematic approach, identifying priori codes and themes within HL and PL. **Results:** Nine initiative leads were recruited with analysis presenting three main themes perceived as the impact on health and wellbeing initiatives (lifelong health and wellbeing, motivation and value of physical activity and sport and confidence and perception) with a further seven subthemes emerging from the data. **Discussion:** Early intervention fostering good health and wellbeing was recognised as a positive outcome for community members. Initiatives perceived the impact of their programme as supporting confidence and perceived ability across different ages. However, it was especially within youth, and within the context of different components such as gender, that this was presented. Emerging evidence suggests domain specific components of PL as supporting health-related knowledge, decision making and behavioural regulation 8. Future studies could consider the interconnections between PL and HL, to better understand how these constructs may collectively contribute to sustainable health behaviours and wellbeing outcomes.

Gender and Physical Activity Across the Lifespan

Student Name*: Aoife Verling*
Location: *Building 8 - Mary Ward Centre*
Abstract No: *23*
Introduction: Regular physical activity (PA) is associated with significant physical, psychological, and social health benefits across the lifespan [1, 2]. Evidence suggests that females engage in less PA than males at nearly all ages [3]. However, existing evidence is largely derived from single-studies or aggregated meta-analyses that lack the granularity to robustly examine interactions between age and gender [4]. The aim of this study was to harmonise national datasets to conduct individual participant data meta-analysis to understand the interactions between age and gender on PA across the lifespan. **Methods:** Datasets were eligible for inclusion if they were publicly available, collected in Ireland within the past ten years, included socio-economic variables, measured sport and PA participation, and were nationally representative. Data were harmonised across datasets, including age, sex, and self-reported physical activity: total moderate-to-vigorous PA (MVPA), moderate (MPA) and vigorous (VPA) PA, recorded as weekly minutes. Linear-mixed effect models were used to examine interactions between age and PA, and sex and PA followed by a combined model including both age and sex. Dataset was included as a random effect and age was centred. **Results:** Seventy-one thousand participants were included from ten datasets

(six waves of the Irish Sports Monitor and four waves of TILDA). Across all ages females accumulated significantly lower levels of MVPA than males, with particularly large differences observed for VPA. Total MVPA decreased by 17 minutes every decade of life (-17.1, 95% CI –18.5, -15.8, p<0.001). This was primarily driven by the reduction in VPA by 23.7 minutes per decade (-23.7, 95% CI –24.4, -23.1, p<0.001). **Discussion:** These findings indicate that declines in total MVPA with age are primarily driven by reductions in VPA, while MPA remained relatively stable. These results highlight critical opportunities for life-stage-specific interventions to support sustained engagement in PA, particularly VPA, among females across the lifespan.

'Will I, won't I?' What influences the decision to take up a community-based exercise programme for chronic disease

Student Name*: Daire Fitzmaurice*
Location: *Building 8 - Mary Ward Centre*
Abstract No: *24*

Introduction: Community-based physical activity referral schemes are increasingly used to support people living with non-communicable diseases (NCDs), yet uptake (initiation following referral) and attendance (participation in scheduled sessions) remain variable (1). While individual-level factors are often emphasised, less is known about how implementation contexts shape these behaviours. This study explored factors influencing uptake and attendance within ULMedEx , a 12-week community-based exercise programme for adults living with NCDs. The Capability, Opportunity, Motivation–Behaviour (COM-B) model was used to structure analysis of individual behavioural determinants, situated within the broader Behaviour Change Wheel (BCW) framework (2) to consider contextual and implementation-level influences. **Methods**: Thirty-four participants (cardiovascular disease (n=14); type 2 diabetes mellitus (n=9); respiratory conditions (n=11)) took part in 10 small group interviews (2–4 participants per group) and eight individual interviews. Interviews lasted a mean of 59 minutes (range: 29–105 minutes). Data collection continued until data saturation was achieved. Data were analysed using reflexive thematic analysis, with inductive theme development followed by deductive mapping to COM-B within the Behaviour Change Wheel. **Results**: Eight themes described factors shaping programme uptake and attendance. Uptake was influenced by (1) the quality and consistency of exercise and programme information at NCD diagnosis or referral, (2) referral as endorsement, where trusted healthcare professionals legitimised participation as safe and appropriate and (3) system continuity, with timely follow-up contact, coordinated transitions from hospital rehabilitation, and proactive outreach from the programme. Attendance was supported by (4) structured delivery, including fixed session times, predictable class routines and assessment feedback, (5) a sense of belonging within a supportive environment, (6) material, economic and logistical feasibility, including transport, parking and class cost, (7) instructor-led safety and trust through visible supervision and tailored guidance, and (8) participants own readiness to engage, shaped by recovery-related vulnerability and perceived choice. **Conclusion**: Opportunity-related influences were central to uptake and attendance, with motivation typically reinforced after engaging with the programme rather than preceding it. Implementation strategies that embed safety, legitimacy, routine and social support within community-based exercise programmes may be more effective for supporting sustained engagement than approaches focused primarily on individual behaviour change. **Funding:** This work has been funded by the Mid-West Health and Wellbeing Division, Health Service Executive.

Theme: Applied Sports Performance and Analysis

Impact of a Legal Tackle Height Reduction Policy on Tackle Behaviour, Injury Rates, and Suspected Concussion Rates in Adolescent Female Rugby Union

Student Name: *Liam Colbert*
Location: *Building 1 – Main Building*
Abstract No: *25*

Introduction: Adolescent female rugby union has high rates of tackle-related injury and concussion compared to their male counterparts 1,2. In July 2023, the Rugby Football Union lowered the legal tackle height from below the armpit to below the base of the sternum to reduce head contact exposure 3,4. Evidence evaluating the impact of this change in female youth rugby is limited. This study examined whether the law modification influenced tackle behaviour, match events, suspected injury and concussion rates, and tackle characteristics associated with suspected concussion. **Methods:** A prospective cohort study with a nested case–control design was conducted across two seasons (pre- and post-law change). Forty-nine matches involving U16 and U18 female players were analysed using systematic video coding. Match events and tackle height distributions were compared between seasons. Suspected injury and concussion incidence rates were calculated per 1,000 match-hours (Poisson). For suspected concussions, each case tackle was matched with up to six control tackles from the same game and team where no suspected concussion occurred. Firth logistic regression with Holm–Bonferroni correction assessed associations between tackle characteristics and suspected concussion. **Results:** Post-law change, head-high and shoulder–armpit tackles decreased by 83% (IRR 0.17; 95% CI: 0.09–0.34) and 46% (IRR 0.54; 95% CI: 0.40–0.72). Offloads, penalties, and open-play kicks increased. Suspected injury rates were 27% lower post-law change (123 to 89 per 1,000 match-hours; RR 0.73, 95% CI: 0.53–0.90). Suspected tackle-related concussion rates were similar (IRR 0.94; 95% CI: 0.49–1.79). However, suspected ruck-related concussions were almost tenfold higher in the season following the law change (IRR 9.83; 95% CI: 1.26–76.77). High-intensity head contacts were strongly associated with suspected concussion (OR 52.6; 95% CI: 9.2–301.3). Head impact with the opposition's lower leg carried substantially higher odds of suspected concussion compared with torso/hip contact (OR 17.22; 95% CI: 2.85–103.97). **Discussion**: Lowering the legal tackle height significantly modified tackle behaviour and was associated with reduced overall suspected injury rates, although suspected tackle-related concussion rates were similar. The rise in ruck-related suspected concussions indicates a need for targeted ruck technique coaching in adolescent female rugby union.

Recovery Matters. Intra-set performance responses to modified recovery periods in the 10x10 repeated acceleration protocol.

Student Name: *Ryan McLaughlin*
Location: *Building 1 – Main Building*
Abstract No: *26*

Introduction: Repeated short-distance accelerations are a defining characteristic of American football and are often performed under constrained recovery conditions. While repeated-sprint ability has been widely examined, less is known about how small changes in recovery duration influence the ability to maintain repeated acceleration performance. **Methods:** This study examined the effect of two intra-set recovery durations (5 s vs 15 s) on repeated 10 m acceleration performance, performance decrement, and perceived exertion during a 10 × 10 m repeated acceleration protocol in collegiate American football players. Seventy-five male Canadian

collegiate American football players (age: 20.4 ± 1.5 years) completed ten maximal-effort 10 m accelerations using either 5 s or 15 s intra-set recovery durations. Acceleration performance was measured using electronic timing gates. Primary outcomes included mean 10 m acceleration time, percentage performance decrement across repetitions, and post-protocol rate of perceived exertion (RPE). **Results:** Mean 10 m acceleration time was slower in the 5 s recovery condition compared with the 15 s condition (2.02 ± 0.20 s vs 1.91 ± 0.17 s; $p < .001$, $d = 0.56$). Percentage performance decrement was substantially greater with 5 s recovery (11.31 ± 3.47%) than with 15 s recovery (4.34 ± 2.28%; $p < .001$, $d = 2.15$). Rep-by-rep analysis demonstrated an earlier and more pronounced decline in acceleration performance under the 5 s condition. Post-protocol RPE was also higher following the 5 s recovery protocol ($p < .001$, $r = 0.56$). **Discussion:** Shortening intra-set recovery from 15 s to 5 s markedly impairs repeated 10 m acceleration performance and increases perceived exertion. These findings demonstrate that repeated acceleration capacity is highly sensitive to recovery constraints and support the use of recovery manipulation and performance decrement as practical tools for training prescription and performance monitoring in team field sports.

Predicting HYROX Performance in Elite Athletes: Station Contributions and Training Implications from Reduced Regression Models

Student Name: *Gianni Ciappara*
Location: *Building 1 – Main Building*
Abstract No: *27*

Introduction: HYROX© is a rapidly growing functional fitness event that integrates eight 1km running intervals with eight functional workout stations performed in a fixed sequence1. To succeed in this format, athletes must balance high-level cardiovascular endurance with the strength and technical proficiency required for each station2. Although research has begun characterising the sport's physiological demands2,3,4, the influence of running and station performance on overall race time remains under-researched. Therefore, this study aimed to identify which race elements or combinations of elements are most strongly associated with overall success in elite-level HYROX© competitions to better inform training and racing strategies. **Methods:** Total running time, individual station times, and overall race times were extracted from the top 6,000 PRO Division performances publicly available on the official HYROX© website1. Following screening for timing inconsistencies and incomplete records, 2,775 male and 2,783 female records were retained for analysis in SPSS. Descriptive statistics and percentage contributions of each race element were calculated. Pearson's correlation (r) and multiple linear regression models were used to quantify the influence of race components on overall performance ($p \leq 0.05$). **Results:** Total running time demonstrated the strongest correlation with overall performance (men: $r=0.633$; women: $r=0.696$). Among functional stations, the 100m sandbag lunges (men: $r=0.567$; women: $r=0.573$), 50m sled pull for men ($r=0.504$) and wall balls for women ($r=0.501$) exhibited the strongest relationships. Regression models revealed that combining total running time, sled pull, lunges and wall balls explained 86% and 88% of overall performance for men and women, respectively. Upon further reduction, the combination of total running time and sled pull accounted for 65% and 70% of overall performance for men and women, respectively. Combining total running time and wall balls also accounted for 70% of overall performance for women. **Discussion:** Running was identified as the most important element, with the sled pull, lunges, and wall balls identified as the most influential stations for HYROX© performance. This influence was closely linked to a station's percentage contribution to

total race time, as longer-duration stations showed stronger correlations with overall performance. Therefore, these elements should be prioritised in training and racing strategies.

On-water Pacing and Power Profiles Differ Markedly from Ergometer Testing in International-Level Rowers

Student Name: *Joakim Viberg*
Location: *Building 1 – Main Building*
Abstract No: *28*

Introduction: The present study compared indoor ergometer performance testing, including assessments of critical power (CP) and W', with on-water performance testing in elite rowers to examine differences in pacing strategies and power profiles. **Methods:** Six international-level rowers completed maximal indoor time trials across multiple distances (2min or 1000m, 1500m, 2000m, 10min & 6000m) on a Concept2 ergometer as well as 2 and 6 km on-water tests with individual power measured using Peach PowerLine instrumentation. Pacing profiles were compared for the 2000-meter distance, while CP and W' were derived from the power-duration relationship for both conditions. **Results:** A significant reduction in power output was observed on-water compared to ergometer testing for both 2000m (-12.2 ± 0.9%; $P < 0.05$) and 6000m (-10.8 ± 3.0%; $P < 0.05$) distances. Individual power losses on-water compared to ergometer testing ranged from 5% to 15%, and this was associated with reductions in both CP (354 ± 14 W vs. 378 ± 15 W) and W' (19 ± 7 kJ vs. 34 ± 5 kJ). However, on-water 2000-meter trials exhibited a more aggressive start, with power output during the first minute being 18.5 ± 7.9 W higher than on the ergometer ($P < 0.05$). **Discussion:** On-water power evaluations were associated with a substantial change in pacing and power profiles for elite rowers compared to ergometer testing. The individual power loss, reductions in CP and W' observed on water indicate meaningful differences in power transfer between conditions.

Validation Of a Novel Motion Capture System for Movement and Sports Assessment: The Precision Study

Student Name: *Luke Conroy*
Location: *Building 1 – Main Building*
Abstract No: *29*

Introduction: Current systems to assess movement competency include wearable sensors which can only measure one part of the body at a time, or laboratory grade multi-camera marker-based motion capture systems which can be expensive to run1. These systems also often require a large ecosystem to function, supported by technicians and may often be out of reach except for those involved in research2-3. A new motion capture system has been developed using a LiDAR-enabled mobile device and the aim of this study was to compare and validate this new system against a benchmark standard of a manual goniometry. **Methods:** Eight participants (5 male; 3 female) were selected to undertake 5 physical activity exercises (with 5 repeated measures per activity) e.g. modified Thomas Test (hip). The activities and associated data collections were conducted by the authors at the ATU Human Performance Laboratory, over a period of 6 hrs. The benchmark movement assessment system selected was a set of manual goniometers which have long been the default tool for assessment of joint angles in physiotherapy and allied sport and exercise professions. The test movement assessment system was the KineticIQ System, developed by Precision Sports (Ltd) which uses a LiDAR-enabled mobile device (iPhone/iPad) to capture movement and calculates and presents associated metrics, including joint angles, in real-time. The primary analysis consisted of an inter-rater reliability intraclass correlation model (IRR-ICC-

M1) with a secondary analysis of intra-rater reliability. **Results:** When comparing the reliability of the KinetikIQ measurement devices against the reference-standard goniometry measurement device, the agreement for angular displacement (ICC Score) of both the KinetikIQ Tripod Device and KinetikIQ Handheld Device was found to be either 'Excellent' or 'Good' across all 5 assessments (2 sides left, right). **Discussion:** These results suggest that mobile LiDAR-based systems are comparable to the benchmark and may provide a more easily accessible system. This methodology requires further validation against a wider range of exercises and environmental conditions.

Day 1 – Thursday 21st May 2026

10:45am - Postgraduate Posters

Theme: Applied Sports Performance and Analysis

Pacing Profiles of Elite Hurling Substitutes: Effects of Time of Entry and Match Status on Running Performance

Student Name: *JJ O'Brien*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *30*

Introduction: Substitutions are typically made to offset fatigue, modify tactics, or replace injured or underperforming players[1], with substitutes typically seeking to make an immediate impact[2]. Given shorter playing durations, substitutes may employ different pacing strategies compared with full-game players. Previous research within hurling reported higher running performances by substitutes but did not account for their length of time on the field, which may influence pacing[3]. Therefore, this study aimed to investigate: 1) how substitutes pace their running performance across consecutive five-minute epochs post entry; 2) how match status (winning, losing, or drawing) at entry influences these responses; and 3) how substitutes' running performance compares with full-game players during equivalent second-half game periods. **Methods:** Global positioning systems were used to collect data from 67 elite hurling players across two teams. A total of 2,411 data samples were collected from 40 games during the National Hurling League and Championship (2022-24 seasons). Players were categorized as full-game or substitutes, with substitutes further grouped by match status at entry (winning, losing, drawing). Total, high-speed running (HSR; 17-21.9 km.h-1), sprint (≥ 22.0 km.h-1), high-metabolic-load distance (HMLD), and number of sprints (n) were analysed. **Results:** Substitutes displayed significant decreases ($p < 0.05$) in all metrics after the initial 0-5 minutes post-entry (ES: -0.34 to -1.27). There was no difference within epochs based on match status ($p > 0.05$), while substitutes who entered when losing experienced the most significant ($p < 0.05$) drop-offs in total-, HSR- and HML-distance after the initial 0-5 minutes (ES: -0.61 to -1.30). Compared with full-game players, substitutes covered greater ($p < 0.05$) total-, HSR- and HML-distance across all equivalent second-half periods (ES: 0.36 to 1.03) and showed higher sprint distance and number of sprints in selected periods (ES: 0.34 to 0.59). **Discussion**: Substitutes in elite hurling adopt an immediate 'all-out, one bout' pacing strategy, characterised by a high-intensity initial five minutes and sustain higher relative intensities than full-game players throughout the second half. These findings highlight substitutes as a valuable tactical asset and reinforce the importance of strategic timing, effective re-warm-up protocols, and targeted physical preparation to maximize post-entry impact

The within- and between- session reliability of Trackman 3 launch monitor variables in elite junior golfers.

Student Name: *Barry Morrissey*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *31*

Introduction: Launch monitor systems such as Trackman are used in golf to measure golf swing variables to gain an insight into a golfer's swing, however research into the reliability of these systems is limited in elite junior golfers. The study aim was to establish the within and between session reliability of Trackman 3 launch monitor metrics in elite junior golfers. A novel aspect of this study was to also establish the reliability of the best shot. **Methods:** Twenty-one participants (age = 15.52 +/- 1.12 years, height = 169.52 +/- 12.92cm, weight = 63.53 +/- 11.78kg) were recruited voluntarily through their involvement with Golf Ireland national and provincial panels and completed a test-retest experimental design, with sessions separated by over 3.5 weeks (3.6

+/- 1.5 weeks). The first three driver shots with a total side distance of less than 20 yards from ten total shots were included for average shot analysis. Best shot analysis is a novel aspect and was analysed as the trial with the fastest club head speed (CHS) from the three shots used in average shot analysis for each test session. **Results:** Within session average measures of CHS, ball speed (BS), carry distance (CD), and total distance (TD) displayed excellent relative reliability (ICC: 0.93 - 1) and acceptable random variation (CV%: 0.52% - 5.19%). Between session average measures of CHS, BS, CD and TD displayed excellent relative reliability (ICC: 0.98 - 0.99) and acceptable random variation (CV%: 0.48% - 3.74). Between session best trial analysis of CHS, BS, CD, and TD displayed excellent relative reliability (ICC: 0.98 - 0.99) and acceptable random variation (CV%: 0.52% - 1.55%). **Discussion:** The results of the current study demonstrate that CHS, BS, CD, and TD are reliable Trackman metrics for average measures within and between sessions, as well as for between best shot measures, thus allowing confident use for coaches and practitioners to reliably monitor and assess golf swing performance following interventions in this population, which reinforces the findings of previous research in this area (Shaw et al,. 2023; Bishop et al., 2024: Brennan et al., 2024).

Female team-sport athletes' fitness, jump performance and kinematics after plyometric jump training: A systematic review and meta-analysis

Student Name: *Andrew Lane*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *32*

Introduction: Plyometric jump training (PJT) can improve athletes' physical fitness across a range of sports and populations 1,2. Nonetheless, the role of PJT on adult female team-sport athletes' fitness, jump performance and kinematics is yet to be clarified, particularly considering the increasing number of published and heterogeneous studies. This review examines the effects of PJT on adult female team sport athletes' fitness, jump performance and kinematics. **Methods:** The included studies recruited healthy female team sport athletes (mean age: ≥ 18 years), incorporated a PJT program ≥ 2 weeks in duration, included comparator groups, and assessed athletes' fitness, jump performance and/or kinematics. The risk of bias (RoB) was assessed using the Physiotherapy Evidence Database scale. Hedges' g effect sizes (ES) with 95% confidence intervals (95% CIs) were reported using a random effects model for meta-analyses. Statistical significance was set at $p \leq 0.05$. Subgroup analyses were conducted based on the participant characteristics (height, body mass) and PJT programming variables (duration, frequency, total sessions, weekly total jumps). **Results:** Thirty articles were included (n = 589 participants), and 24 were meta-analysed. Compared to controls, PJT improved countermovement jump (CMJ) height (ES = 0.519, $p < 0.001$), CMJ peak concentric velocity (ES = 0.623, $p = 0.011$), drop jump (DJ) reactive strength index (RSI) (ES = 0.714, $p = 0.001$), 20 m sprint time (ES = 0.504, $p = 0.004$), 30 m sprint time (ES = 0.935, $p = 0.001$), non-linear (agility) Illinois test sprint time (ES = 1.225, $p < 0.001$) and T-test sprint time (ES = 0.965, $p < 0.001$). Compared to PJT ≤ 6 weeks, longer interventions favoured 10 m sprint time ($p = 0.001$), and Illinois agility test times ($p < 0.001$. The majority of the included studies did not report soreness, pain, fatigue, injury, or adverse effects related to the PJT interventions. **Discussion:** Adult female team sport athletes' fitness, jump performance and kinematics improved after PJT when compared to control condition, including CMJ height, CMJ peak concentric velocity, DJ RSI, linear sprint speed, and change-of-direction sprint speed. These were particularly notable following longer interventions (> 6 weeks).

From Evidence to Intervention: Co-Designing and Evaluating 'Mindful Analysis' – A Mental Well-Being Resource for GAA Performance Analysts

Student Name: *Patricia Lynch*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *33*

Introduction: Preceding longitudinal research identified significant occupational stressors and episodic mental health vulnerability among senior inter county Gaelic Athletic Association (GAA) performance analysts (PAs)[1]. This created a translational imperative to move beyond diagnosis toward structural intervention[2]. This study developed and evaluated 'Mindful Analysis', a psychoeducational resource for GAA Pas using the RE AIM framework[3]. **Methods:** A qualitative, multi stage design was employed. Semi structured interviews with two GAA stakeholders (national leads in sports science and coaching development) provided organisational perspectives, directly informing resource revision. Subsequently, two focus groups (N = 10) evaluated the revised resource. Participants (3 female, 7 male) represented diverse experience levels: senior club analysts (n = 3), senior inter county analysts (n = 3), underage inter county analysts (n = 2), and PA educators (n = 2). All were members of the GAA PA Leadership Group, ensuring informed feedback. Data were analysed using hybrid deductive inductive thematic analysis, structured by RE AIM domains (Reach, Effectiveness, Adoption, Implementation, Maintenance). **Results:** Stakeholders validated the resource's relevance and GAA specific content, recommending integration into accreditation pathways. PAs confirmed its effectiveness in normalising experiences and providing a shared framework for understanding occupational stress. However, participants identified the static, text heavy format as a critical barrier to engagement. Unanimous demand emerged for: (1) modular, multimedia delivery enabling "dip in and dip out" use; and (2) enhanced preventative content on professional boundary setting, role negotiation, and service level agreements shifting the intervention's focus from reactive coping to proactive skill building. **Discussion:** The 'Mindful Analysis' resource, refined through co design, provides an evidence based, user validated blueprint for structural wellbeing support. Its real-world impact depends on organisational commitment to modular digital delivery and formal integration into GAA professional development structures. This study offers a replicable model for translating empirical diagnosis into embedded, accessible support within amateur high-performance sport.

Warm-Up Practices and Neuromuscular Training Implementation in Female Youth Rugby Union

Student Name: *Liam Colbert*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *34*

Introduction: Neuromuscular training (NMT) warm-up programmes reduce injury risk in youth sport 1; however, evidence is largely derived from male cohorts and controlled implementation settings 2,3. Despite increasing participation in female youth rugby union4, little is known about real-world warm-up practices or how implementation support influences NMT delivery. This study aimed to characterise warm-up structure and NMT exposure in female youth rugby and examine differences across implementation contexts. **Methods:** A cross-sectional video analysis of 139 warm-ups (95 training; 44 match) from U16–U18 female rugby teams was conducted across Canada (2022, 2023, 2025) and England (2025). Warm-ups were grouped into three implementation contexts based on coach NMT education workshop exposure and country: Canada Workshop (n = 20), Canada No-Workshop (n = 55), and England No-Workshop (n = 64).

Total warm-up duration, NMT duration (Canada - SHRed; England - Activate), and time spent in individual warm-up components were coded using timestamped video analysis. Linear regression models compared contexts (Tukey-adjusted for overall duration; Bonferroni-adjusted for components). Effect sizes were expressed as standardised mean differences (SMDs). **Results:** Workshop-supported training warm-ups contained significantly greater NMT exposure than unsupported contexts. Canada Workshop training sessions included more NMT than Canada No-Workshop (321.6 vs 86.6 s; $p<0.001$; SMD=2.07) and England No-Workshop (321.6 vs 123.3 s; $p<0.001$; SMD=1.44), representing 43% of total warm-up time compared with 11–15% in unsupported contexts. Workshop sessions also demonstrated greater balance and strength exposure and reduced inactivity compared to No-Workshop sessions. Despite differing programmes, unsupported contexts were similar. In match warm-ups, fewer differences were observed, with contextual constraints likely influencing content distribution. **Discussion:** Coach education workshops were associated with meaningful increases in NMT exposure and redistribution of warm-up time toward evidence-informed components and less inactivity in female youth rugby training environments. Passive dissemination of programme materials alone appeared insufficient to alter practice. These findings highlight the importance of structured implementation support to optimise injury-prevention delivery in the girls' game. Future research should examine whether objectively quantified NMT exposure translates to reductions in injury incidence.

Quantifying sprinting in field sports: A narrative review of biomechanical insights, performance demands, and physical development strategies.

Student Name: *Ryan McLaughlin*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *35*

Introduction: Sprinting and acceleration underpin decisive actions in field sports, yet their development and assessment require integrating biomechanical, physiological, and contextual demands. This review synthesizes current evidence to clarify key determinants of sprint performance and practical considerations for training and monitoring. **Methods:** A narrative review of peer-reviewed literature examining sprint biomechanics, repeated-sprint physiology, sport-specific movement demands, injury epidemiology, and technologies used to quantify sprint performance. Included studies spanned soccer, rugby, American football, field hockey, Australian football, and Gaelic football. Key themes were synthesized to integrate mechanical determinants, training adaptations, and contextual demands. **Results:** Across sports, sprinting actions are short (≤20 m), frequent, and often decisive. Biomechanically, effective horizontal force application, reduced ground contact times, and coordinated vertical–horizontal force vectors underpin acceleration and maximal velocity performance. Physiologically, repeated-sprint training imposes high metabolic demands, with phosphocreatine depletion and neuromuscular fatigue driving within-session performance declines. Sprint and acceleration profiles vary substantially by sport, sex, and position, reinforcing the need for context-specific conditioning. Injury risk—particularly hamstring and lower-limb soft-tissue injuries—is elevated during high-speed running, exacerbated by acute workload spikes and insufficient exposure to sprint velocities. Technologies such as GPS, timing gates, and radar each offer distinct advantages; however, methodological inconsistencies across systems can meaningfully influence data interpretation, emphasizing the need for consistent protocols. **Discussion:** Sprint and acceleration performance in field sports are shaped by an interaction of mechanical, physiological, and contextual factors. High-quality assessment requires selecting reliable technologies and standardised protocols. Tailored training

interventions, combining technical refinement, resisted and unresisted sprint training, and controlled exposure to high-speed running, support performance development while reducing injury risk. Practitioners should individualise sprint-development strategies based on sport-specific and positional demands. Regular high-speed exposure, consistent testing protocols, and careful load management can enhance performance and mitigate injury. Selecting appropriate measurement technology—summarised in Table 2—is essential for accurate monitoring and evidence-based decision-making.

The prevalence of the Female Athlete in Athletic Development Research for Rugby Literature: Preliminary Findings of a Scoping Review

Student Name: *Jack Hickey*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *36*

Introduction: Rugby participation among females has grown substantially over the past two decades across both Rugby Union and Rugby League. Despite this, concerns persist that female athletes remain underrepresented in sport science, sports medicine, and performance research [1]. Failure to either examine or report participant sex can restrict the applicability of evidence-based practice and hinder the development of sex specific guidelines for training, injury prevention, and athlete support [1]. To address this gap, a scoping review was initiated to quantify the prevalence of male and female populations included in published athlete performance research in a Rugby context. **Methods:** A systematic search of five databases (SPORT Discus, PubMed, Scopus, Web of Science and Cochrane) was conducted from database inception to December 2025. Eligible studies included empirical research focused on all codes of able-bodied Rugby, across all performance, medical, anthropometric, and strength and conditioning domains. Data extracted included study design, area of research, population sex, Rugby code, level of play, and geographical location. Preliminary analysis focused on determining the proportion of studies not reporting the sex of the participants. Final analysis will seek to identify the proportional representation of the sexes within all included studies. **Results:** A total of 3299 studies were screened, with 853 meeting inclusion criteria (full extraction ongoing). Across the included studies to date, 29% of studies do not report the sex of the population studied. The highest proportion of this instance was found in professional Rugby League studies. Further investigation reveals this occurrence in peer-reviewed literature from 2000 to 2025. Representation in the literature also varies by Rugby code, with male participants represented universally, whilst females predominantly represented in Sevens research. **Discussion:** Preliminary findings indicate a lack of reporting of the sex of study participants in athletic performance research carried out in a Rugby context. This may hinder evidence-based practice and development of tailored approaches to athlete performance and welfare. Ongoing full-text extraction and thematic mapping will provide a comprehensive overview of the ratio of male and female participants, changes in practice over time, and add to the emerging discussion surrounding future research priorities for the female Rugby athlete[2].

Performance Advantages Vary by Impairment Type and Event in Para Swimming.

Student Name: *Niamh O'Brien*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *37*

Introduction: Certain athletes can dominate swimming events based on their physiology and talent. However, it is not[cp1.1] known whether certain impairments dominate events in Para

swimming. From our knowledge, there is no research available investigating the success of physical impairment groups in para. This information is crucial for understanding whether the classification system is fair and effective for performance outcomes. Therefore, this study aimed to establish whether there were dominations by certain physical impairment groups in different events and distances. It was hypothesised that (i) dominant impairment groups would be seen across events and (ii) dominant impairment groups would be seen across distance events. **Methods:** Data were extracted from GraceNote Sports (1), and included the race event (distance and stroke), impairment type, and finishing position. Data included all race results performed at the World Para Swimming Championships and the Paralympic Games from 2018 to 2024. Athlete impairments were split into eight impairment groups. A two-way ANOVA was carried out on the dataset to examine if certain impairment groups were more successful in para swimming events. Success was based off the athlete's rank in their respective event. **Results:** The [NO2.1]two-way ANOVA showed a statistically significant interaction between impairment and event on rank for both males, $F(70, 2739)=2.509$, $p<0.001$, $\eta 2=0.060$ and females, $F(61, 2399)=2.358$, $p<0.001$, $\eta 2=0.057$. **Discussion:** The main findings of this study were (i) there were distinct differences in success between impairments for each event and (ii) longer distanced events showed themes for success, for males in particular. No impairment demonstrated a universal dominance across all events, distances and/or genders, indicating that the advantages when they occurred were event-dependant. The performance differences observed in our results are potentially reflective of the biomechanical and physiological constraints of an event, alongside the severity of one's impairment, rather than just competitive imbalances. Ultimately, the results highlight that performance success in para swimming appears to be influenced by the interaction between the impairment type, distance, and demands of the event. Our findings extend on existing literature providing event-specific insights on impairments in para swimming. They highlight how certain impairments are less likely to achieve success in particular events.

Investigating the Characteristics of Frees awarded in the 2025 Senior Inter-County Ladies Gaelic Football Championship

Student Name: *Aoife McColgan*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *38*

Introduction: Ladies Gaelic Football (LGF) is one of the largest female participated sports in Europe with over 200,000 registered participants. In the game a foul is categorized as an action that contravenes the official playing rules, interfering with active play, safety, or sportsmanship. Kelly et al (2022) previously reported that winning teams committed significantly more fouls in the 2019/2020 Senior Championship. This research aims to investigate the characteristics of frees awarded in LGF. **Methods:** 872 fouls from 21 games in the 2025 Senior Inter-County Championship were analysed using NacSport Elite. Fouls were categorized into 3 types, Aggressive, Technical and Dissent. Validity and reliability of data collection were found within an acceptable range <0.05. Statistical analyses were conducted using SPSS version 29 **Results:** There was on average 38 ± 9 fouls a game. The aggressive foul was the most common throughout the game, accounting for 76% of total fouls. Winning teams commit significantly more total fouls (22 ± 6 v 16 ± 6, $p\leq0.04$), 1st half fouls (10 ± 3 v 7 ± 4, $p\leq0.03$) and middle third fouls (8 ± 4 v 5 ± 2, $p\leq0.02$), versus losing teams. Winning teams also committed more fouls in the final quarter of the game. **Discussion:** Winning teams are fouling significantly more and higher up the pitch compared to losing teams. This may be to slow the opposition counterattack down and set up defensive structures. The average of 38 fouls per game translates to one foul every 94 seconds,

more than 10 higher than reported in the men's game which found on average 27 fouls per game, one every 155 seconds (GIU.,2026). This research will provide a benchmark for the LGFA who have recently introduced new rules with the aim of increasing physicality and flow of the game.

Sample Size, Sample Characteristics, and Measurement Practices in Jump and Sprint Performance Research in Sports Science.

Student Name: *Harry Fleming*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *39*
Introduction: Small sample sizes in sports science research are common, and studies that use small samples are likely to be under powered 1. Research findings conducted with low statistical power poses a significant challenge in the interpretation of their results and is an issue numerous scientific fields are facing, including sports science, psychology biomedical science, neuroscience and motor learning2,3. Put into context, the median sample size of papers submitted to the Journal of Sports Science between 2017 and 2020 was only 19 3. Small samples may be acceptable for finding large effects however a study's ability to detect small effects is critical in sports and exercise science and elite level sport 4. Whereas the problem with small sample sizes has been identified for some time within sports science, this issue may be more pronounced in studies with female participants. As research in exercise and sports science frequently features a higher number of male participants than female participants5. **Methods:** A systematic literature search was conducted in top quartile sports science journals from 2020-2024. Studies were eligible for inclusion if they employed an experimental or quasi-experimental design with either independent or repeated measures, included a linear sprint test and or a formal performance monitoring bodyweight bilateral jump test, and were conducted with healthy participants. A total of N=2,415 articles were initially identified. Following title and abstract screening and full-text review, n=469 articles remain for data extraction which is currently ongoing. **Results:** There are four preliminary results aimed to be presented at ISESA; First, we aim to describe the typical sample sizes used in experimental research, using within- and between-subjects designs, assessing sprint and jump performance across gender, competitive level, and year of publication. Second, we aim to determine if year of publication or gender of sample participants affects the observed samples sizes. Third, we aim to describe the type of sample size justifications provided, and whether the inclusion of a justification has changed over time. Finally, we aim to identify the most common sprint and jump tests and test outcomes used within experimental research, as well as the most common practices around the number of trials used and how they are reduced.

The effect of acute post-training fatigue on lower limb strength symmetry in female Gaelic football players

Student Name: T.N.V.S.L.Pranathi
Location: *Building 8 – Mary Ward Centre*
Abstract No: *40*
Introduction: Ladies Gaelic football is characterised by high-intensity sprinting, accelerations, jumping, kicking and multidirectional movements. The sport is associated with a high prevalence of lower-limb injuries, particularly involving the knee and hamstring muscle groups, highlighting the need for effective neuromuscular monitoring and injury-prevention strategies1. Indeed, lower-limb strength has been identified as a key determinant of performance and injury resilience in female Gaelic football players2.

Inter-limb asymmetry, defined as differences in strength between limbs, may arise due to sport-specific loading patterns, previous injury or neuromuscular fatigue, and has been proposed as a factor influencing both performance and injury risk. Fatigue during training and match-play has been shown to negatively affect neuromuscular performance in Gaelic football3, while studies in other sports have demonstrated associations between exercise-induced fatigue and inter-limb asymmetries4. Given the potential link with injury, and the paucity of research on fatigue in female Gaelic football players, it is important to investigate the impact of fatigue on muscle strength and symmetry in this group. **Methods:** This will be a cross-sectional study with a single club team of female Gaelic football players aged ≥18 years. Full-body and segmental muscle mass will be measured using bioimpedance analysis. Isometric strength testing of quadriceps and hamstrings will be measured pre- and post-training using digital dynamometry. Perceived fatigue post-training will be assessed using the Rating of Fatigue (ROF) scale. Inter-limb strength asymmetry will be calculated pre- and post-training, and associations with fatigue and muscle mass distribution will be analysed using correlational and comparative statistical methods. **Results:** It is anticipated that acute post-training fatigue will result in reductions in lower-limb strength and increases in inter-limb strength asymmetry. Variations in segmental muscle mass may demonstrate associations with baseline strength and asymmetry values. Higher perceived fatigue scores are expected to correspond with greater reductions in strength and increased asymmetry following training. **Discussion:** Investigating fatigue-related changes in strength asymmetry and their relationship with muscle mass distribution may provide novel insight into factors affecting performance and injury risk in female Gaelic football players. Findings may support physiotherapists, coaches, and scientists in understanding and implementing optimal injury-prevention strategies.

Does Relative Lower Limb Strength Impact the Dose-Response Relationship Between Tonnage and Change in Lower Limb Performance Across a Velocity-Based Training Intervention within Hurling Players?

Student Name: *Aoife Hanley*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *41*

Introduction: Velocity-based training (VBT) has emerged as a method for individualising resistance-based training load and optimising performance adaptations through targeted movement velocities that can drive intent and specific adaptations. However, the dose-response relationship between accumulated tonnage and performance outcomes may vary depending on individual characteristics. This study investigated whether relative lower limb strength moderates the dose-response relationship between training tonnage and changes in lower limb performance during a VBT intervention. **Methods:** Twenty sub-elite hurling players (age: 23.4 ± 3.2 years; height: 178.7 ± 5.6 cm) were stratified into two groups based on relative back squat strength (1RM/body mass): Strong (n = 10; rel. squat = 1.71 ± 0.13 kg/kg) and Moderate (n = 10; rel. squat = 1.51 ± 0.06 kg/kg). Participants completed an 11-week lower limb VBT protocol consisting of two sessions per week. Training tonnage was quantified as the sum of load × repetitions across all sessions. Lower limb performance was assessed via peak vertical force (PVF), force development at 50, 100, 150, and 200 milliseconds (F50, F100, F150, F200), countermovement jump height (CMJ), reactive strength index (RSI), and absolute and relative squat strength at baseline and post-intervention. **Results:** The Strong group demonstrated substantially greater improvements across all performance metrics. Peak vertical force increased 8.6% ± 3.3% in the Strong group compared to 2.9% ± 3.6% in the Moderate group (ES: 1.65; large). Similarly, relative

squat strength improved 4.6% ± 2.0% in Strong participants versus 1.3% ± 2.5% in Moderate participants (ES: 1.45; large). Force development metrics showed comparable patterns: F100 improved 8.9% ± 5.5% versus 6.2% ± 4.2% (ES: 0.55; moderate), and F200 improved 6.6% ± 5.0% versus 4.5% ± 5.3% (ES: 0.40; small). CMJ height changes were modest in both groups (Strong: 2.6% ± 1.2%; Moderate: 2.3% ± 1.4%; ES:0.23; small), with RSI showing variable responses (Strong: 4.1% ± 6.7%; Moderate: 3.6% ± 4.9%; ES: 0.08; trivial). Accumulated tonnage was comparable between groups (Strong: 105,644 ± 7,491 kg; Moderate: 103,706 ± 4,994 kg; ES: 0.30; small), suggesting that baseline strength status, rather than training volume, was the primary moderator of performance adaptations. **Discussion:** The findings suggest that relative strength status influences the magnitude of performance improvements in VBT interventions, with stronger individuals demonstrating superior adaptations across isometric force and maximal strength measures. Practitioners may optimise program design by stratifying participants by baseline strength or adjusting expectations for performance gains based on athlete strength profiles. Future research should examine mechanisms underlying differential responsiveness and test targeted interventions for lower-strength populations

Monitoring Weekly Load and Wellness Identifies Elevated Injury Risk in Elite Youth International Hockey Players

Student Name: *Norah McGinty*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *42*

Introduction: Adolescence is a critical developmental stage characterised by somatic growth, hormonal, musculoskeletal, social and environmental changes. Combined with demands of elite sport, this makes for potentially vulnerable experiences (1). While potential risk factors such as athletic exposures are commonly monitored within performance pathways, subjective wellness indicators are less consistently integrated. **Methods:** This season-long prospective cohort study aims to examine the prospective association between athletic exposures and wellness scores on injury incidence in elite youth international hockey pathway players. Players in Hockey Ireland's age-grade national teams (U16 and U18 boys and girls) completed baseline assessments of physical testing, demographics, and training/injury history. In-season, participants recorded weekly athletic exposures and well-being (sleep, stress, muscle soreness and fatigue) using the bespoke UCD WISP PRO app. Injuries were recorded using The Oslo Sports Trauma Overuse Injury Questionnaire (OSTRC), using an all-complaints injury definition consistent with IOC recommendations (2). General linear mixed models examined the impact of age, sex, prior-week athletic exposures, and a composite wellness score on injury. The outcome was incident injury defined as the occurrence of a new injury in the subsequent week. **Results:** A total of 147 players were recruited (mean [SD] age 16.3 [1.0] years, BMI 21.8 [1.9] kg/m^2), of whom 55.1% were female. Overall, 73.6% of participants reported at least one pain/injury 76% of these resulting in time loss. Across 1,578 athlete-weeks (145 incident injuries), higher weekly athletic exposures and poorer wellness were associated with increased odds of incurring a new next-week incident injury. For every one-point increase in athletic exposures, an 8% increase in next week incident injury odds occurred (OR 1.08, 95% CI 1.02 – 1.14). Each one-point worsening in wellness was associated with a 43% increase in injury odds (OR 1.43, 95% CI 1.16-1.75), with no association between age or sex and injury. **Discussion:** In elite international youth hockey players, higher weekly athletic exposures and poorer wellness were independently associated with subsequent injury. Integrating routine wellness monitoring alongside athletic exposures may enhance early identification of vulnerability in youth performance pathways.

The Physiological Profiles of Elite and Sub-Elite Hurlers

Student Name: *John Keane*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *43*

Introduction: The competitive demands of the Hurling require a unique blend of aerobic endurance, anaerobic capacity, speed, strength, and skill execution at high intensity[1]. Literature outlines a difference in anthropometric, performance and running demand profiles between elite and sub-elite levels [2,3]. Laboratory-based assessments provide a standardised means of evaluating athletes' physiological capacities through measures such as maximal oxygen uptake ($\dot{V}O_2max$), heart rate (HR) profiling, and blood lactate (BLa) analysis. Despite these findings, laboratory-based physiological data, particularly for sub-elite players, remains limited. Given the "open panel" selection system, establishing normative physiological profiles across levels and positions is essential to inform conditioning, talent development, and progression to elite competition. **Methods:** The study aimed to identify the differences in physiological profiles of elite and sub-elite hurlers with respect to positional lines of play. Thirteen (n =13) elite inter-county and seventeen (n =17) sub-elite club hurlers completed a single physiological assessment during the early in-season phase of the season. Data collection consisted of standard anthropometric measurements followed by an incremental staged treadmill assessment for $\dot{V}O2max$, HR profiling, BLa analysis, RPE recording, and the determination of vLT, vOBLA, and PTV for all participants. Linear mixed models assessed differences between playing levels and positions, with effect sizes and smallest worthwhile change used to interpret meaningful effects. **Results:** Elite hurlers displayed superior aerobic and running capacities compared with their sub-elite counterparts. $\dot{V}O_2max$ (55.55 ± 6.84 $mL \cdot kg^{-1} \cdot min^{-1}$) for elite players compared to (52.87 ± 3.11 $mL \cdot kg^{-1} \cdot min^{-1}$) for sub-elite players (d = 0.50; small)]. Additionally, peak treadmill velocity was also higher in elite players (18.46 ± 1.34 $km \cdot h^{-1}$) than sub-elite players (17.82 ± 0.98 $km \cdot h^{-1}$). Between-level differences were evident for velocity at the onset of blood lactate accumulation (vOBLA: 14.62 ± 0.92 vs. 14.12 ± 0.47 $km \cdot h^{-1}$) and lactate threshold velocity (vLT: 12.31 ± 1.07 vs. 11.06 ± 1.55 $km \cdot h^{-1}$), with small-to-moderate effects observed. Across incremental treadmill speeds, elite players consistently demonstrated lower blood lactate concentrations and ratings of perceived exertion, but higher heart-rate profiles compared with sub-elite players with small–moderate effect sizes observed. **Discussion:** Our data shows that elite hurlers possess higher $\dot{V}O_2max$, peak treadmill velocity, and blood-lactate profiles at different running speeds, as well as a markedly higher HRmax capacity during all-out efforts, when compared with sub-elite players. At matched running speeds, elite players also displayed lower blood lactate and perceived exertion, indicating greater efficiency and fatigue resistance at specific speeds. These differences likely enable these elite players to cover superior total distances, engage in high-speed running, and sustain a high work-rate, as previously reported when comparing elite match play to sub-elite match play. For sub-elite athletes, the data highlights clear physiological targets that they must attain, especially in terms of aerobic power and metabolism, to meet the potential demands of elite training and match-play.

Are We Measuring the Right Thing? Under-Reporting of Key Tackle-Related Injury Metrics in Youth Rugby Epidemiology

Student Name: *Shane Scanlon*
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Abstract No: *44*

Introduction: Tackle events are consistently identified as the most injurious match activity in youth Rugby codes (YRCs). Across published youth cohorts, tackles account for most injuries, including 66.7% in Irish Senior Cup Rugby Union (Guilfoyle et al. 2025), 76.8% in elite Rugby 7s in the United States (Lopez et al. 2020), and 78.1% in Australian community-level Rugby League (Orr et al. 2021). Despite this consistent pattern, reporting of tackle- related injuries (TRIs) varies considerably, limiting synthesis of injury-risk profiles and hindering the development of targeted prevention strategies. **Methods:** A systematic search of PubMed, SportsDiscus, MEDLINE, Scopus, Web of Science, and Embase (January 2000 to January 2026) identified prospective injury-surveillance studies reporting TRIs in athletes aged ≤19 years in YRCs. Reference lists were also screened. Eligible studies required: (1) prospectively collected match or training injury data, (2) explicit TRI reporting, and (3) extractable epidemiological outcomes (incidence, severity, burden, or injury characteristics). Extracted data included study design, population, exposure hours, TRI incidence, severity, burden, injury type, anatomical location, tackler versus ball-carrier differentiation, and temporal distribution. **Results:** Twenty-eight studies met inclusion criteria, and all identified the tackle event as the leading injury mechanism in YRCs. However, reporting completeness varied substantially. Ninety-six percent (n=27) reported TRI occurrence, but only 50% (n=14) provided TRI-specific incidence rates. Tackler versus ball-carrier distinction appeared in 36% (n=10) of studies, with values ranging from 16.2 versus 12.2 injuries per 1000 match hours, respectively (Guilfoyle et al. 2025). TRI severity reporting was inconsistent (n=11), with detailed time-loss values documented in some cohorts (37.2 mean days missed) (Lopez et al. 2020), but absent or aggregated in others (Burger et al. 2014). TRI-specific injury burden, critical for identifying high-impact injuries, was rarely reported (n=4). Only 11% (n=3) of studies provided explicit data linking tackling or being tackled to injury type and anatomical location. Temporal patterns (third-quarter spikes) were similarly under-reported (n=3). **Discussion:**
Although the tackle event consistently emerges as the primary cause of injury in YRCs, key TRI-specific variables are under-reported across surveillance studies. Standardised TRI reporting frameworks are required to improve comparability and strengthen evidence-based TRI prevention in YRCs.

"Heads up!" Quantifying Head Acceleration Events in male and female soccer, using human in the loop supervised machine learning for action spotting from broadcast footage.

Student Name: *Luke Canavan*
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Abstract No: *45*

Introduction: Head acceleration events (HAEs) are strongly associated with sport-related concussion (SRC) and mild traumatic brain injury (mTBI) in contact sports and can serve as a practical proxy for identifying incidents that may warrant clinical attention. In soccer, HAEs commonly arise during aerial duels, head-to-body contact (elbow-to-face), unexpected ball-to-head impacts, and collisions with the environment (goalposts). Beyond acute injury, routine heading offers a means to quantify cumulative sub-concussive exposure, which has been hypothesised to contribute to long-term neurodegenerative risk (CTE Chronic Traumatic Encephalopathy(CTE) and other dementias). However, scalable methods to quantify both acute HAEs and longitudinal cumulative load-particularly across male and female competitions remain limited. This study develops and evaluates an automated, broadcast-footage-based system to detect and quantify HAE-related actions in male and female professional soccer using human-in-the-loop (HITL) supervised machine learning. **Methods:** Twenty full professional matches (10

male, 10 female; 33.39 hours total) were scraped extracted from YouTube using a Google ColabCollab pipeline (provided as supplementary material). Matches were manually annotated for predefined HAE-relevant event categories (also provided). Annotation quality was assessed via inter- and intra-rater reliability, with a two-week re-annotation of a selected match; precision, recall, and F1 were computed, and ≥70% agreement was required to meet protocol standards. Timestamps and labels were then ingested by a Python script to automatically segment full-match footage into 15-second MP4 clips for model training. We train a spatial-temporal classifier (Temporal Shift Module/STM) and a ground-up action-spotting model, stratified by gender, using HITL to iteratively refine labels and hard negatives. Model performance will be evaluated and compared against the existing Deep Impact head-impact framework, including analysis of cross-gender generalisation and female-specific performance. **Findings:** Preliminary findings indicate that female-trained models improve performance on female matches but degrade on male matches, while hybrid training yields the most robust spotting across both. This work highlights a persistent sex-data gap in sports computer vision and moves toward a gender-neutral, accessible HAE detection tool. Ultimately, low-cost action spotting from standard video could support SRC surveillance without wearables, enabling broader deployment in resource-limited settings and extension to other contact sports.

Theme: Athletic Therapy, Sports Medicine & Biomechanics

From Evidence to Action: Developing and Assessing a Co-Designed, Theory-Informed Concussion Education Programme for Irish Jockeys

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Abstract No: *46*

Introduction: Concussion in horseracing is common, yet underreporting remains a persistent concern.[1] Previous work within this research identified; gaps in symptom recall, negative attitudes towards disclosure, entrenched cultural norms, and structural pressures. These findings indicate that concussion reporting is shaped not only by awareness but also by social and environmental influences. Theory-driven, context-specific, and collaboratively developed interventions are required to target the behavioural determinants underpinning reporting decisions in this high-risk sport. Aim: To describe the co-design and preliminary systematic development and assessment of a multi-component, Theory of Planned Behaviour (TPB)-informed[2] concussion education intervention for Irish jockeys and key stakeholders. **Methods:** Intervention development was informed by three empirical studies examining concussion knowledge, attitudes, perceived barriers and facilitators to concussion reporting and care-seeking, and education preferences in Irish horseracing. Key behavioural determinants were mapped to TPB constructs to identify modifiable targets for change. The programme was co-designed with jockeys and industry stakeholders to enhance contextual relevance, acceptability, and feasibility. The Medical Research Council framework guided structured development and planning for feasibility and effectiveness evaluation.[3] **Results:** Intervention: The programme comprises three integrated components over the course of a season: (1) in-person sessions embedded within the jockey licensing course to shape norms and behavioural intentions; (2) an online interactive video incorporated into annual continuing professional development to reinforce learning and address perceived barriers; and (3) training of concussion ambassadors to positively influence normative beliefs and support cultural change surrounding concussion disclosure and care-seeking. Evaluation: Effectiveness will be assessed using a mixed-methods design. Pre-post surveys relevant to components 1 and 2 will examine changes in TPB constructs, knowledge, and reporting

intentions. Semi-structured interviews conducted with those that participated in one or more components of the programme at six-month follow-up will add nuance to TPB constructs, explore acceptability, perceived impact, behavioural change, and implementation fidelity. **Discussion:** This intervention represents a structured and contextually grounded approach to improving concussion reporting intentions in Irish horseracing. By embedding behaviour change strategies within existing educational and social systems, the programme aims to move beyond awareness-raising toward sustainable behavioural and cultural change.

Risk Factors for Anterior Cruciate Ligament Injuries in Teenage Team Sport Athletes – A Scoping Review of the Literature

Student Name: *James Sheerin*
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Abstract No: *47*

Introduction: The prevalence of anterior cruciate ligament (ACL) injuries in teenage athletes increased by up to 147% from 2005 to 20151, with invasion-based team sports accounting for the highest proportion of injuries2. These injuries result in significant time out from sport, averaging 9.6 (±3.2) months3. Unfortunately, the prevalence of re-injury (19 %)3 or contralateral rupture (13 %)3 is high, and athletes often fail to return to their pre-injury competition level (11 – 39 %)4. Despite these worrying trends, there remains a lack of clarity around population-specific risk factors in teenage team-sport athletes. In theory, injury is a balance between the load applied and load tolerance of tissue, with injury occurring when the load applied is relatively larger than load tolerance. However, in practice there is a complex interplay of multidisciplinary factors that can modify both sides of this equation. Furthermore, teenage athletes present additional challenges relating to growth, maturation, and neuromuscular development that must be considered. Therefore, this scoping review will aim to comprehensively map the breadth and quality of research related to ACL injuries in teenage team-sport athletes identifying literature gaps and proposing questions to be addressed by future research. **Methods:** The review will be conducted in line with guidelines from the Joanna Briggs Institute (JBI). A comprehensive search strategy will be developed and used to search multiple research databases, along with grey literature. Screening of the returned studies will take place using inclusion and exclusion criteria that will incorporate the population, concept, context (PCC) framework. Data extraction including metadata, population and study characteristics, variables investigated, disciplines involved and associations will take place. The extracted data will be synthesised and analysed descriptively and thematically. **Results:** Papers will be mapped based on topic, disciplines included, study design, and quality. This mapping will provide information about the extent of research in the area and aid in the identification of research gaps. **Conclusion:** ACL injuries are increasing among teenagers, with team-sports representing a particularly high prevalence. Despite this, there appears to be a lack of research involving this cohort. This review will comprehensively map the knowledge related to ACL injuries in teenage team-sport athletes and identify gaps in the research, with the goal to identify areas for potential future studies to support screening for ACL injuries and ultimately develop injury prevention strategies for a uniquely vulnerable population.

Clinical and Economic Effectiveness of Barefoot Walking Versus Standardised Conservative Care for Plantar Fasciopathy: A Pragmatic Randomised Controlled Trial Protocol

Student Name: *Elisabetta Brigo*
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Abstract No: *48*

Introduction: Plantar fasciopathy (PF) is the most common cause of plantar heel pain and a leading musculoskeletal foot condition among both athletic and general populations1. Despite numerous available treatments, long-term outcomes remain inconsistent2, and associated healthcare utilisation and costs are substantial3. Emerging evidence suggests that barefoot walking (BFW), particularly on natural surfaces, may reduce symptoms by restoring the foot's function and improving load tolerance4. However, existing studies are small, methodologically limited, and lack economic evaluation. Therefore, this study aims to evaluate the feasibility, clinical effectiveness, and cost-effectiveness of BFW compared to standardised conservative care (SCC). **Methods:** This pragmatic, parallel-group RCT will randomise 110 adults with PF (1:1) to either a 12-week BFW program or SCC. The trial is powered to detect a minimal clinically important difference of 1.5 points on the Numeric Pain Rating Scale (NPRS) (α=0.05, 80% power, 20% attrition). The BFW group will complete progressive barefoot walking on grass three times weekly, starting at 5 minutes and gradually increasing each week using pain-guided progression criteria. The SCC group will complete a structured exercise-based conservative program targeting the plantar fascia and the calf muscles, reflecting current clinical recommendations. Both groups will receive identical baseline education and standardised pain-relief guidance. The primary outcome is change in pain (NPRS) at 12 weeks. Secondary outcomes include foot function (Foot Function Index), adherence (≥70%), adverse events, healthcare utilisation, and incremental cost-effectiveness ratios (ICERs). Follow-ups will occur at 4, 8, 12, and 36 weeks. Analyses will follow the intention-to-treat principle using mixed-effects regression models. **Expected Impact:** It is hypothesised that BFW will demonstrate non-inferior or superior clinical outcomes compared with SCC, with lower associated costs. This will be the first adequately powered pragmatic RCT to evaluate both clinical and economic outcomes of barefoot *walking for PF, informing scalable, low-cost exercise-based management strategies.*

Barefoot running versus standard conservative care for plantar fasciopathy in recreational runners: A research proposal

Student Name: *Mark Nolan*
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Abstract No: *49*

Introduction: Plantar fasciopathy (PF) is one of the most common musculoskeletal injuries affecting runners[1]. However, despite the extensive research PF has received, the condition's aetiology remains poorly understood[2]. Most of the research investigating potential treatments for PF focus on symptomatic relief with poor consensus on effective therapies and a lack of results for sustained resolution of the condition. There is even less depth of research available on athletic population sufferers as the majority of their treatments are based on general population data. To date, the investigation of barefoot running as a potential treatment for PF is limited to a small body of early studies primarily composed of case series. One of which, conducted by the EVOLVE Research Group, demonstrated that barefoot running on grass significantly reduced pain in recreational runners with symptomatic PF3. It is upon this novel proof of concept that the foundational framework of this research project is proposed. **Aim:** It is the aim of this project to

investigate the effectiveness of barefoot running (BR) versus standard conservative care (SCC) in the treatment of PF, including assessment of long-term therapeutic sustainability. **Proposed Methods:** This research will consist of a randomized control trial (RCT) followed by a longitudinal follow-up study. Recreational runners with symptomatic PF will be randomly assigned to either a BR intervention group or a SCC group. The BR protocol will be implemented over a 12-week period, with assessments conducted at baseline and immediately post-intervention. The primary outcome measure will be change in pain scores using a validated pain scale. Secondary outcomes will include assessment of plantar fascia mechanical properties such as stiffness and softness via ultrasound elastography, as well as standardised functional tests, and foot muscle strength measured via dynamometry. A six-month longitudinal follow-up study will evaluate sustained therapeutic effects of BR versus SCC, assessing the same primary and secondary outcomes as intervention 1 immediately after the first 12-week intervention, as well as at 3 months, and 6 months. **Results**: Findings from this research may contribute to understanding whether BR represents an effective and sustainable intervention for PF management.

Technologies Used to Monitor Sprint Performance

Student Name: *Graham O'Brien*
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Abstract No: *50*

Introduction: Understanding the biomechanical determinants of sprint performance requires accurate and reliable measurement technologies[1]. Various systems, including timing gates, force platforms, radar devices, motion capture, and wearable sensors, are used to quantify sprint performance and sprint mechanics. However, the relative prevalence of these technologies within short-distance sprint research (<100 m) has not been systematically described. This review aimed to quantify the frequency of technologies used in sprint performance research. **Methods**: A systematic search was conducted across three databases in January 2026. Studies were included if they assessed athlete performance in sprints ≤100 m using objective measurement systems. Studies validating equipment were excluded. Data were extracted regarding the type of technology employed (timing gates, force plates, radar, motion capture, video cameras, optojump and wearable sensors). Frequencies and percentages were calculated to determine technological prevalence. **Results:** A total of 23 studies met inclusion criteria. Photoelectric timing gates and inertial measurement units were the most frequently reported technologies (n = 9, 39.1%), followed by video-based systems (n = 8, 34.8%). Laser-based systems (n = 4, 17.4%) and radar systems (n = 4, 17.4%) were reported less frequently. Motion capture (n = 3, 13.0%) and Optojump (n = 3, 13.0%) were used in a smaller proportion of studies. Force plates (n = 2, 8.7%), GNSS/GPS systems (n = 2, 8.7%), and resisted sprint devices such as the 1080 Sprint (n = 2, 8.7%) were comparatively underrepresented. **Discussion:** Although sprint acceleration and maximal velocity are fundamentally underpinned by force production and horizontal force application, direct kinetic assessment was infrequently reported3. The predominance of timing gates, IMUs, and video-based systems suggests that sprint research may prioritise temporal and kinematic descriptors of performance[2]. While these approaches provide meaningful outcome and movement data, the limited representation of force-based methodologies highlights a potential disconnect between the mechanical determinants of sprint performance and the technologies most commonly used to assess it. Greater integration of kinetic assessment methodologies may enhance mechanistic insight in future sprint performance research.

Predicting Transitional Stability on Compliant Surfaces Using VR-Based Sensorimotor Adaptation Metrics

Student Name: *Ritika Sanjay Bhagwat*
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Abstract No: *51*

Introduction: Athletes routinely perform rapid transitions from stable to unstable surfaces while simultaneously processing complex visual and cognitive information. Conventional balance assessments predominantly rely on static sway metrics and may underestimate impairments in adaptive control under dual-task conditions—limitations that are particularly relevant in concussion and lower-limb injury rehabilitation. This study examines whether VR-derived postural adaptation metrics can predict dynamic stability during compliant-surface transitions. **Methods:** Thirty-two healthy adults (18–30 y) will complete counterbalanced single-task (VR optic-flow) and dual-task (VR + auditory 2-back) standing balance trials. During 120 s of mediolateral sinusoidal optic-flow perturbation, adaptation kinetics will be modeled using the exponential decay constant ($1/\tau$) of center-of-pressure velocity. Postural complexity will be quantified using Sample Entropy ($m=2$, $r=0.15\times SD$), and dual-task cost will be calculated from changes in mediolateral sway area and cognitive accuracy. Standardized components will be integrated into a composite Sensorimotor Robustness Index (SRI). Participants will subsequently perform a 25 cm step-down and 5 m compliant-surface walk. Mediolateral trunk sway velocity (RMS) and time-to-steady-state gait will be measured using a lumbar-mounted IMU (100 Hz). Hierarchical regression will determine whether the SRI predicts dynamic instability beyond traditional static sway metrics. **Results:** Lower SRI scores are hypothesized to significantly predict greater mediolateral trunk sway and delayed stabilization on foam. While adaptation rate is expected to drive predictive strength, postural complexity and dual-task cost are anticipated to provide meaningful incremental explanatory value. **Discussion:** By integrating sensory adaptation speed, movement complexity, and cognitive-motor interference into a single framework, this approach may offer a more ecologically valid assessment of dynamic balance capacity. If supported, these findings could inform return-to-play decision-making, enhance detection of residual instability post-concussion, and guide progression of neuromotor rehabilitation under sport-relevant cognitive demands.

Assessment of a Computer Vision System for Motor Skill Evaluation: A Pilot Study

Student Name: *Colm O'Donoghue*
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Abstract No: *52*

Introduction: Motor competence proficiency underpins long-term engagement in physical activity and sport, with early mastery promoting sustained participation and positive self-perception 1. Whilst assessment is key, time, space, and assessor training demands limit the practicality of the TGMD-3 as an assessment tool in school settings 2. In response, 3-D markerless motion-capture systems have emerged as a potentially scalable and less intrusive alternative 3. Compared with traditional laboratory-based systems, markerless approaches are relatively low-cost, easier to deploy, and support a more "plug-and-play" approach, increasing their potential for large-scale implementation. Consequently, rigorous validation of these systems is essential before their adoption in real-world practice 4. Therefore, the aim of this study is to evaluate the validity of an open-source computer vision pipeline ('FreeMoCap') for assessing locomotor skill proficiency within a controlled adult sample. **Methods:** Our ongoing research utilises 'FreeMoCap', an open-source, markerless motion capture pipeline integrating computer vision and machine learning to reconstruct real-time, full-body kinematic data in 3-D space. While the

system supports flexible multi-camera configurations, this study utilises four tripod-mounted USB web cameras. Participants perform locomotor activities along a linear 15m pathway with cameras mounted at a height of 1.6m, positioned 1m in front of the pathway, and spaced 1m apart from one another. Following data capture, FreeMoCap reconstructs the recorded 2-D keypoint detections into 3-D kinematic data, generating a 3-D skeletal representation via the open-source software Blender. All major joint coordinates are retained for subsequent analysis. Finally, using a hand-crafted heuristics rule-based engine, the collected joint data is then analysed. Using TGMD-3 performance criteria as a reference framework, the rules engine generates a pass/fail classification result alongside a percentage distribution breakdown to indicate the specific performance criteria components contributing to the final verdict, thereby enhancing interpretability and transparency. **Discussion:** Current pilot work is validating the experimental set-up among an adult population. Collectively, our ongoing work has the potential to improve access to objective motor skill assessment within school settings. By reducing cost and logistical barriers, it may support earlier identification of motor deficiencies and more informed intervention planning.

The Influence of Repeated Sprinting on the mechanical characteristics of Team Sport Athletes with and without Prior Hamstring Injury

Student Name: Eoghan Dorgan
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Abstract No: *53*
Introduction: Sprinting is a key determinant of performance in Gaelic Games [6] but is also the most common mechanism of hamstring injury (HI) [3,5]. In elite Gaelic Football, HIs account for 22–24% of all injuries each season [2]. Athletes with a previous HI have a higher reinjury risk [8] and may show deficits in horizontal force production during sprint acceleration [7], with maximal horizontal force at low velocities (FH0) inversely associated with HI risk [4] Repeated sprinting induces neuromuscular fatigue that can alter sprint mechanics and mechanical characteristics such as theoretical maximal horizontal force (F0), maximal velocity (V0), and maximal power (Pmax) [9]. Suboptimal sprint mechanics (SMAS) are also associated with previous and future HIs [1]. However, it remains unclear whether fatigue-induced mechanical changes differ between athletes with and without prior HI, particularly in Gaelic games. **Methods:** A quasi-experimental between–within repeated measures design will be used. Eighty Gaelic Games athletes (40 male, 40 female; ≥18 years) will be recruited and grouped by injury history (previous HI vs non-injured). Participants will complete two testing sessions separated by ≥48 hours and ≤2 weeks. After a standardised warm-up, athletes will perform 6 × 30 m maximal sprints with 15 s passive recovery. Sprint footage will be recorded using a 240 fps camera (iPhone 13) and analysed with the MySprint app to derive force–velocity variables (F0, V0, Pmax). Sprint kinematics will be assessed using the 12-item Sprint Mechanics Assessment Score (S-MAS) from 250fps GoPro footage. Aims: The primary aim is to examine the effects of repeated sprinting on sprint mechanical characteristics and determine whether the responses change depending on the athletes injury history. The secondary aim is to examine the effects of repeated sprinting on sprint kinematics and whether the responses differ depending on injury history. Hypothesis: It is hypothesised that repeated sprinting will result in reductions in F0, with larger fatigue-related decrements observed in athletes with a previous hamstring injury.

Theme: Coaching, P.E. & Sport Pedagogy

Roles and Expectations Related to Relative Energy Deficiency in Sport (REDs) - A Survey Assessing the Perceptions of REDs Between Athletes, Coaches and Support Staff

Student Name: *Darren Delaney*
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Abstract No: *54*

Introduction: Since the introduction of relative energy deficiency in sport (REDs) in 2014,1 research has primarily focused on athletes' experience of REDs. This approach limits a holistic understanding of REDs beyond athlete involvement. A greater understanding of REDs may be achieved by identifying coach and support staff perspectives and experiences,2 as staff members' advice can be intentionally preventative or unintentionally contributory to REDs' development.3,4 However, research combining athletes with coaching and support staff investigating role-specific perspectives of REDs is limited. **Methods:** This study assessed the alignment between athletes' expectations of coaching and support staff's roles within REDs, along with staff members' perceptions of athletes' REDs experience. Two interrelated questionnaires were developed in a mixed-methods cross-sectional study. These questionnaires were assessed for comprehension and accuracy by three Irish Registered Nutritionists, and pilot tested. A Chi-Square Test of Independence ($\chi 2$) examined the relationship between the role of being an athlete and coaching or support staff and REDs awareness, with effect size determined using Cramer's V. A reflexive thematic analysis was used to identify common themes within responses to open-ended questions. Results: 101 respondents participated in the study, 56 (41 female; 15 male) athletes and 45 (14 female; 31 male) coaching and support staff. Quantitative findings indicated 31 (55%) athletes, and 33 (73%) coaching and support staff were aware of REDs. There was no relationship between the role of being an athlete and coaching or support staff member and REDs awareness ($\chi 2(1)=3.473$, $V=0.185$, $p=0.062$). Qualitative analysis identified four themes: Coaching Best Practice, Coach-Athlete Relationship, Varied and Specific Knowledge, and Issues External to the Coach-Athlete Relationship. **Discussion:** Athletes desired to receive, with coaching and support staff desiring to facilitate individualised REDs care. Athletes reported experiences of negative coaching practices, and expectations of receiving limited support. Coaching and support staff felt their potential to positively influence athletes' REDs experiences as limited, due to symptoms being unreported, or REDs-related advice being ignored. Therefore, REDs experiences are complex and multifaceted, with expectations and perceptions shaped by individual perspectives. Further exploration of REDs-specific education programmes focusing on practical applications of REDs recognition, treatment, and prevention methods, is warranted.

Guesswork to Guidance: A Delphi Study on Practices of Talent Identification and Development in Para Athletics

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Abstract No: *55*

Introduction: Para sport research is a rapidly developing field (1), with a fivefold increase in Para sport research evident within the last ten years (2). Within this expanding field of research, talent identification and development (TIdD), are gaining traction.
When implemented effectively, TIdD can enhance the correct allocation of resources and increase the likelihood of return on investments (3). Currently, there are no standard practice guidelines for TIdD in Para athletics (PA). The objective of this study was to examine current practices in TIdD within PA, as identified by leading experts in the field. This study sought to seek expert opinions

regarding the effectiveness of current TIdD approaches, and identify current real-world PA TIdD practices to allow coaches and sports practitioners working in PAs to adopt evidence-based. **Methods:** A three round Delphi survey was conducted with experts in PA TIdD. Round One aimed to elicit insights into the current practices and beliefs in talent identification and development in Para athletics using open-ended questions. Round One survey responses were analysed and collated into statements which formulated Round Two where respondents were asked to rate their level of agreement with these statements. Where consensus was reached (i.e., an agreement level of > 75%) no further questions were asked regarding the topic of that statement. Where consensus was not achieved, the statements were revised and carried forward to Round Three. Respondents were required to, again, rate their level of agreement with these statements. **Results:** Twenty-three experts completed three survey rounds (Round One, n = 31; Round Two, n = 24; Round Three n = 23). Thematic analysis of Round One identified themes such as quantitative assessment, coaching approaches, physical and psychological attributes of athletes. Of 20 statements in Round Two, 9 reached consensus. Of 14 statements in Round Three, 7 reached consensus. **Discussion:** The findings suggest effective TIdD in PA is characterised by quantitative baseline assessments, athlete specific talent development plans, and in-depth coach knowledge and experience. Stakeholders in PA should apply these findings into practice to improve the effectiveness of their TIdD protocols. Successful TIdD is multifactorial and should account for quantitative assessments and athlete development while also considering coach characteristics.

Athlete Perspectives and Gender Dynamics within Martial Arts and Combat Sports Practice Environments

Student Name: *Yvonne O'Connell*
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Abstract No: *56*

Introduction: Martial arts and combat sports (MACS), particularly Brazilian Jiu-Jitsu (BJJ), have experienced rapid global growth, yet research has primarily focused on coaching Methods: rather than the athlete's lived experience (Hjortborg et al., 2025). Understanding how athletes perceive training environments is essential for identifying effective practices and addressing issues of inclusion, especially given persistent gender disparities in combat sport participation. Previous research suggests that female practitioners often encounter different motivational climates and social dynamics compared with male counterparts, highlighting the importance of athlete-centred, gender-oriented investigations into training environments (Alsarve & Tjønndal, 2020; Andersen Brevig et al., 2024). **Methods:** A bespoke survey instrument will be developed and distributed via the GDPR-compliant 'Qualtrics' platform. This survey will gather information on demographics, training background, competition experience, perceptions of training practices, inclusivity, and motivational climate. BJJ athletes actively training in Ireland will be recruited (N≈200) using club distribution and snowball sampling. Inclusion criteria for participation requires (i) participants to be over 18 years of age, (ii) actively training/practicing for at least six months in a BJJ environment, and (iii) training/practicing for a minimum of two hours a week. **Expected Outcomes:** This study is expected to produce the first demographic and experiential profile of BJJ athletes within an Irish context. Findings may identify common training practices, preferred learning activities, and perceived effectiveness of different coaching approaches. Gender-based comparisons are expected to reveal both shared experiences and differences in perceptions of inclusivity, enjoyment, and training effectiveness. These insights may help clarify the relationship between coaching intentions and athlete experiences (Andersen Brevig et al., 2024). **Discussion:**

By focusing on athlete perspectives, this research may contribute to a growing body of literature emphasising athlete-centred approaches in sport coaching and participation research. Understanding how gender dynamics shape training environments may inform evidence-based strategies for improving athlete retention, satisfaction, and inclusivity (Channon & Matthews, 2015). By mapping demographic characteristics, training preferences, and gendered experiences, the study may generate actionable knowledge to support the development of athlete-centred, equitable training environments across MACS settings.

Getting to Grips: An Exploration of Coaching Pedagogy among Brazilian Jiu-Jitsu Coaches in Ireland.

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Abstract No: *57*
Introduction: Brazilian Jiu-Jitsu (BJJ) coaching traditionally follows an informal mentor-apprentice model, while lacking formal pedagogical frameworks to inform practice design (David, 2015). This aligns with research highlighting the lack of understanding of the 'why' behind certain practice activities, leading to regurgitation of content from anecdotal sources (Smith et al., 2023). Despite some potential alignment with an evidence-informed approach in coaching BJJ, further research is needed to determine the levels of awareness and understanding coaches have in relation to skill acquisition theory and practice, and how it may inform their coaching pedagogy. **Methods:** The study adopted and modified a survey from Kinnerk et al. (2019) to investigate the background, practice activity preferences, skill acquisition theory exposure, and pedagogical practice of Irish BJJ coaches in Ireland. Out of 104 BJJ coaches who met the inclusion criteria, 64 completed the full survey (61.5% response rate). **Results:** Data reported that 50% (n = 32) of participants had received no formal coach education. Moreover, 81.3% (n = 52) of participants reported using linear session sequencing. Results: highlighted key challenges in applying skill acquisition theory, with identifying themes (36%, n = 23) and game design (34%, n = 22), cited most frequently. The Results: also indicate participant's preferred method of learning new approaches with most stating viewing other coaches (78%, n = 60) as their primary preference followed by workshops (58%, n = 37) and being left alone to practice (31%, n = 20). When asked to rate their interest in learning about an athlete-centred approach on a 10-point scale, 81.3% of participants (n = 52) provided a rating of 7 or higher. **Discussion:** The findings address a gap in the literature and provide context-relevant findings for combat sport coaching. The Results: also highlighted a large portion of the sample reported using contemporary pedagogical approaches despite most participants incorporating a linear session sequencing. The findings also suggest a growing interest in approaches centred on game design and athlete-centred coaching practices. Findings also present an insight into the preferred Methods: of learning new coaching approaches and some of the challenges coaches face when incorporating skill acquisition theory and research.

From Policy to Practice: Alignment and Implementation within the Table Tennis Ireland Coach Education System

Student Name: *Luke Noonan*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *58*
Introduction: Content being delivered within the education pathway has been widely researched (Sagala et al., 2021), yet research examining how coach education systems are aligned and implemented in practice remains limited across all sports. This gap is particularly evident within

table tennis (TT), where research on coach education pathways is rare, particularly research which looks at topics such as continuous professional development (CPD) and modes of delivery. It has been identified that within education, standardization is often assumed to enhance consistency by offering structured frameworks that guide participants through defined stages of learning (Foucault 1991). Despite this there is very little research conducted on how to best align the coach education experience, with variation of delivery being very common (Bengtsson et al. 2025). **Methods:** This study will look to identify gaps and misalignment within the Table Tennis Ireland (TTI) coach education pathway using a mixed Methods: approach with both coaches and coach educators. This mixed Methods: approach will be informed by previous research by Bengtsson et al. (2025), this will consist of a survey and follow up semi-structured interviews. TTI coaches of Ireland will be contacted to participate in the current research by the Coach and Volunteer Development Officer and all coaches contacted will meet a minimum criterion. **Results:** Data collection consisted of a mixed Methods: approach (Surveys and interviews) exploring if alignment is evident across the coach education experience in areas such as learning outcomes and practical experiences. Data analysis will consider areas where coherence is evident, as well as where variation emerges, particularly in relation to differences in delivery, coach educator preparedness and gaps where CPD opportunities could support. **Discussion:** This study seeks to contribute to the lack of research around how coach education frameworks are interpreted and enacted in practice. By examining alignment within the TTI context, the research will offer insight into how standardised education frameworks operate at the level of delivery and experience. In doing so, it aims to inform wider Discussion's about how coach education systems can be structured and supported to enhance coherence, relevance, and effectiveness across sporting contexts.

The Co-Creation of a Personal Development Framework within a Gaelic Games Talent Academy.

Student Name: *Claudia Kearney*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *59*
Introduction: Questions around the appropriateness and healthiness of talent development systems have been highlighted in the literature (Rongen et al., 2014, 2018). Appropriately developed and implemented talent development environments can have a positive impact on the health and well-being of the youth athletes involved (Ivarsson et al., 2015; Rongen et al., 2014). This study aimed to conduct a stakeholder-informed needs analysis and utilise a co-creation process to design and implement a personal development framework tailored to a Gaelic Games Talent Academy. **Methods:** A qualitative needs analysis was conducted using semi-structured interviews and focus groups with key stakeholders, including current U16 academy athletes (n = 16), current college-level and/or intercounty athletes with previous talent academy experiences (n = 12), former senior intercounty players (n = 4), current talent academy coaches (n = 6), and parents of children with current and past talent academy involvement (n = 6). Discussion:s explored experiences, current knowledge and behaviours, perceived gaps in support, and contextual challenges, related to health, lifestyle, and psychosocial development with the academy environment. Data were analysed using reflexive thematic analysis to identify key areas requiring structured support. **Results:** This process directly informed the framework structure and design, including: i) identification of two overarching pillars (health & lifestyle, psychosocial development), ii) specification of key content within each pillar (practical nutrition & recovery strategies, time management & organisation, the 5Cs (Harwood, 2008) + 1), iii) integration of

multimodal delivery Methods: (interactive workshops, applied tasks, coach-led elements). The framework will subsequently be implemented as an intervention with a Gaelic Games Talent Academy squad, targeting athletes while embedding structured involvement of coaches to strengthen environmental support. **Discussion:** By identifying key developmental needs and incorporating stakeholder perspectives, this research will bridge existing gaps in athlete support within Gaelic Games Talent Academies. The co-created framework may serve as a model for enhancing holistic athlete development, promoting positive behaviours and strengthening support systems. Insights from the intervention implementation will serve to inform best practice in talent development, offering a structured approach to integrating health, lifestyle, and psychosocial development in youth sport.

The integration of Mental Training into the Coaching Practice of GAA coaches

Student Name: *Brendan Hackett*
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Abstract No: *60*

Introduction: Coaching practice, and its influence on athlete development and performance has evolved into an interdisciplinary profession, moving beyond an exclusive focus on physical, technical, and tactical preparation toward a more holistic model of development. This shift has generated growing interest in the psychological dimensions of performance and well-being. Mental training is now widely recognised as a key component of player development; however, questions remain regarding the extent to which coaches understand, value, and systematically integrate mental skills into their practice. This study aimed to examine the degree to which coaches within Gaelic Games incorporate mental training into their coaching practice. **Methods:** An initial review of the scientific literature identified several recurring themes underpinning research into the use of mental training by coaches. While coaches across multiple sports report valuing mental skills development, evidence suggests limited formal integration into coaching practice. Commonly cited barriers include insufficient knowledge, lack of confidence, limited formal education in sport psychology, financial constraints, and time pressures. In order to evaluate this further a mixed-Methods: design was adopted comprising of an anonymous online questionnaire which was distributed to GAA coaches nationwide. A total of 658 responses were received. The survey examined coaching background, current use of mental training, specific techniques employed, sources of knowledge, perceived barriers, and interest in further education. **Results:** Findings indicate that 96% of respondents believe mental skills development forms part of their coaching role. Despite this, only 40% reported actively implementing structured mental training as part of their coaching practice. Among those not currently implementing such strategies, lack of knowledge (68%) and lack of experience (51%) were the most frequently cited barriers, followed by time constraints (26%). Only 2% questioned the value of mental training. Notably, 43% reported inviting external speakers to address mental skills with their teams. **Discussion:** These findings highlight a clear gap between coaches' perceived responsibility and practical implementation. While coaches recognise the importance of the psychological development of their players, limited training appears to hinder effective integration. The strong expressed demand for education (96%) carries significant implications for National Governing Bodies and organisations responsible for coach development pathways.

Navigating Fragmented Multi-Sport Youth Systems: Coaching Practice and Injury Management

Student Name: *Damien Costello*
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Abstract No: *61*

Introduction: Multi-sport participation is common among underage athletes in Ireland 1. In this multi-sport ecosystem, there are opportunities for participation within schools and clubs as well as at regional and national levels. The aim of this study was to explore coaches' experiences of coaching multi-sport athletes, and their knowledge and attitudes towards injuries and injury management including Return to Play (RTP) protocols. **Methods:** Semi-structured interviews were conducted with fifteen coaches across different sporting codes (GAA, rugby, soccer, basketball, cricket and athletics) in the Republic of Ireland. Interviews were focused on their attitudes and beliefs about multi-sport participation, injuries, injury reporting and injury management. All interviews were transcribed verbatim and analysed inductively using a reflexive thematic analysis approach as described by Braun and Clarke 2. **Results:** The interviews identified two higher order themes: 1) The coaches as architects of the athlete's outcome(s) and 2) The navigation of the multi-sport landscape. Each theme was categorised into subthemes. Coaches actively influence how athletes experience load, injury, reporting and RTP through their philosophy, communication style and decision-making practices. They define injury thresholds by normalising soreness and minor knocks while still expressing strong caution towards concussion and other dramatic injuries. Coaches describe multi-sport participation as developmentally beneficial and very common within Irish youth sports. However, they reported challenges relating to athlete's multi-sport commitments and communication between sports. Coaches rely on trust and experiential judgement in place of formal monitoring to assess athlete readiness. **Discussion:** Our research highlights that coaches recognise the developmental benefit and value of transferrable skills and resilience gained through multi-sport participation. Coaches facilitate cross-sport collaboration but can be frustrated with the structural fragmentation of the multi-sport environment which positions the athlete as the primary conduit of information between coaches. Risk of injury emerges from the reliance on the information coordination and communication between competing sports. Further research should explore how coaches and athletes share load and injury information to identify the gaps in communication and collaboration with a view to informing practical strategies for clearer and more consistent inter-sport practices.

Sex and Gender Specific Considerations in Youth Female Athletes in Ireland

Student Name: *Angela Kenneally*
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Abstract No: *62*

Introduction: Despite increasing female participation in sport, adolescent girls disengage from sport at higher rates than boys 1. Female-specific health considerations may contribute to this disengagement but are often overlooked in research 2. This study aimed to investigate sex and gender specific experiences of youth female athletes in Ireland. **Methods:** A self-administered online questionnaire was developed, comprising 82 questions across seven sections: demographics, strength training, menstrual health, pelvic floor health, breast health, environment, and gendered environment. The content validity of the questionnaire was determined by a panel of expert academics and practitioners (n=10) using a modified Delphi approach 3. Youth female athletes (aged 14-20 years), who competed at national, international

or world level, were recruited through their sporting body, in person at squad training days and through professional contacts of the researchers. Closed-ended questions were analysed using descriptive statistics, including mode, percentages and frequencies, while open-ended responses were analysed using qualitative content analysis to identify recurring themes and patterns. **Results:** Respondents were 277 youth female athletes across 20 sports (age 17 ± 1.88 years). Health literacy was limited, with only 39% of athletes able to name the two main hormones of menstruation, while self-reported menstrual, breast and pelvic health literacy were most commonly reported as good (47%), average (47%) and poor (43%), respectively. Sex-specific health concerns were common, with 54% of participants reporting pelvic floor symptoms and 100% of naturally menstruating participants experiencing negative menstrual cycle symptoms. Despite this, few athletes felt comfortable discussing menstrual (30%), breast (15%) or pelvic (13%) health with coaches. Environmental support was inconsistent, with access to nutritionists (10%), psychologists (10%) and sports scientists (6%) reported as 'always' available within athletes' sports. While social connections were identified as a positive experience of being a girl in sport, negative experiences were associated with perceived inequality, societal perception of female sport, and female physiology. **Discussion:** The findings suggest that although female-specific health issues may be common among youth athletes, self-reported knowledge, comfort discussing these, and environmental supports appear to be limited. Targeted, age-appropriate education and bespoke female-specific environment and performance support systems may help address these gaps.

Designed with Athletes: A Co-Designed Approach to Sleep, Recovery, and Nutrition Education

Student Name: *Lorcán Mason*

Location: *Building 8 – Mary Ward Centre*

Abstract No: *63*

Introduction: Sleep, recovery, and nutrition are essential for athletic performance and health (Walsh et al., 2021). However, many elite athletes have poor practices due to limited knowledge and traditional "top-down" education producing short-term Results: (Dietrich et al., 2016; O'Donnell and Driller, 2017; Halson, 2019; Gooderick, Wilson and Searle, 2025). Co-design is a participatory method placing end-users at the centre of programme development, ensuring relevance and acceptability (Vargas et al., 2022; Jørgensen et al., 2025). Few studies have used co-design to develop integrated educational programmes covering sleep, recovery, and nutrition for elite athletes. This study employed a structured co-design framework to create a theory-informed, stakeholder-driven educational intervention. **Methods:** Ten collegiate athletes (age: 19.70 ± 2.34 years; training: 495.50 ± 183.20 minutes/week) competing at national level (McKay et al., 2021) participated across five phases: (1) needs assessment via questionnaire examining practices, knowledge, barriers, and preferences; (2) preliminary plan development; (3) semi-structured interviews with athletes (n=2) and supervisors exploring acceptability and feasibility; (4) systematic modification based on feedback; (5) protocol finalisation. Quantitative data were analysed descriptively (Jamovi 2.3; R 4.4.1). Qualitative data underwent reflexive thematic analysis using a six-phase approach (Braun and Clarke, 2022), with coding organised using TIDieR-PHP domains (Campbell et al., 2018). **Results:** Three interconnected themes emerged: Consequence-Based Education showed athletes preferred performance-focused content with statistical evidence (e.g., 1.7× injury risk with <7 hours sleep) over generic health messages; Peer Learning and Discussion: highlighted preference for interactive cross-sport formats over passive presentations; Accountability Systems emphasised consistent daily reminders (WhatsApp)

integrated with routines for monitoring compliance. The co-designed intervention comprised three monthly workshops (15-40 minutes) covering sleep fundamentals, nutrition to support sleep and recovery, and advanced strategies, each followed by 7-night monitoring using wrist actigraphy and sleep diaries with structured accountability mechanisms. **Discussion:** This study demonstrates how co-design addresses gaps in athlete education. Using TIDieR-PHP as an analytical framework represents a methodological advance, bringing comprehensive intervention reporting to participatory design in elite sport. This ensured feedback was systematically mapped onto intervention components, making the process transparent and replicable. By positioning athletes as active partners, co-design builds acceptability, ownership, and sustained engagement whilst addressing common criticisms of participatory research (Tay et al., 2021; Vargas et al., 2022; Jørgensen et al., 2025). Future research will evaluate intervention effects on knowledge, habits, and recovery outcomes.

Physical Education Teachers' Learning Communities Through Social Media in China

Student Name: *Yue Xu*
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Abstract No: *64*

Introduction: Social media can be used to build professional learning communities that align with school responsibilities and support professional development opportunities among physical education teachers worldwide1. While most studies exploring cultural differences in social media usage have been conducted in the USA and UK2, this study examines the extent to which Chinese physical education teachers engage with social media platforms as a community for learning. **Methods:** Purposive sampling was used for participant recruitment, with the inclusion criteria as follows: (1) teachers hold a registered teaching certificate in school physical education in Shanghai; (2) teachers actively use social media for professional learning purposes; and (3) the school has established regulations, policies, or workshops to enhance teachers' use of social media for professional learning. Interview questions were informed by a range of previous research study protocols and organized in five elements12345. Two pilot interviews were conducted to adapt the interview questions to the Chinese context. 31 participants were selected for semi-structured individual interviews conducted via Tencent Meeting (Voov). Data analysis was guided by elements from various models of learning communities, including Communities of Practice6, Teacher Professional Communities7, and Professional Learning Communities. **Results:** Four themes were identified: (1) WeChat, Tiktok, and Redbook were the main platforms for accessing innovative teaching approaches and district led learning activities. (2) The physical education and health curriculum 2025 provided teachers with opportunities to design teaching, creating extra workload. (3) School based and district-based group chats were joined mandatorily for teachers with less than five years' teaching experience, while friend-based group chats were joined voluntarily with teachers outside of the school from previous education experience. (4) The new curriculum encouraged teachers to use AI based tools for innovation in teaching but lacked related facilities and guidelines provided in the schools. **Discussion:** The findings of this research will inform the most effective support needed for Chinese physical education teachers to maximise the use of WeChat as a professional learning community. It is envisaged that this will include reducing teachers' workload, fostering a non-judgmental learning culture in group chats within and outside schools, and updating facilities or devices to enable teachers to try innovative ideas in the classroom.

Expanding Skill Acquisition as a Domain: The Lessons and Learnings from Developing and Delivering an MSc in Skill Acquisition in Sport

Student Name: *Sam Jermyn*
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Abstract No: *65*

Until recently, no postgraduate programme existed with a dedicated focus on Skill Acquisition for Sport. With the rapid expansion of undergraduate provision in this area, the development of an advanced, bespoke postgraduate pathway represented a natural and necessary progression. In response, the Skill Acquisition Team within the HEX SPO Research Group at Munster Technological University designed and launched a new MSc in Skill Acquisition for Sport.

Theme: Physical Activity and Health

Beyond the sidelines: Exploring health, wellbeing and perceived stressors among inter-county Gaelic games managers and coaches

Student Name: *Emma Kent*
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Abstract No: *66*

Introduction: The world of high-performance sport management and coaching is inextricably linked with performance, organisational, and personal stressors, all of which may adversely affect the ability to prioritise one's own health and wellbeing[1]. Within the context of inter-county Gaelic games, these pressures are further intensified, as managers and coaches must navigate heightened performance expectations and public scrutiny while simultaneously maintaining full-time employment outside of their respective roles. Further, although elite Gaelic games are amateur in ethos, they operate in a manner comparable to other professional sports organisations, often resulting in professional-level demands being placed on 'amateur' managers and coaches. The purpose of this research is to examine these demands and the impact of same on inter-county Gaelic games managers and coaches. **Methods:** This research is currently in the Pilot Study Phase (Phase 1), involving managers and head coaches active in 2025 but not engaged in 2026, with Phase 2 targeting all active inter-county managers and coaches from the 2026 season. This latter phase will commence on a staggered basis three weeks after the final game of each team's season. A quantitative methodological approach will be employed with participants being recruited through a purposive sampling approach. Those who give consent to participate will complete a fully anonymised, web-based questionnaire, designed using previously validated scales, which will explore a range of correlates of health and wellbeing and perceived stressors across the 2026 inter-county season. **Discussion:** Given that this research is the first of its kind within a Gaelic games context and is fully endorsed by both the GAA and GPA, key findings will make an important contribution to the development of evidence-based supports for managers and coaches within the GAA. The GPA currently provide extensive support for GAA players, including resources such as the 'Management Team Support Booklet,' which offers guidance and advice in terms of supporting player wellbeing. However, there is currently an absence of similar supports tailored to the health and wellbeing needs of Management Teams themselves, highlighting the need for interventions addressing the unique dual-career demands of inter-county managers and coaches within the organisation. Notably, it is anticipated that Phase 3 of this research will take place during the 2027 season where the focus will pivot to both inter-county Ladies Gaelic football and camogie.

An evaluation of a peer-led physical activity and wellbeing promotion intervention among a cohort of first year students in an Irish University setting.

Student Name: *Alison Chambers*
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Abstract No: *67*

Introduction: A programme of research to inform Munster Technological University's (MTU) 'Healthy Campus' initiative revealed sub-optimal health and lifestyle profiles exhibited by substantial proportions of students at MTU (Bickerdike et al, 2019). Furthermore, 'both students and staff recommended that a campus HP (health promotion) entity should strongly advocate for recreational walking and/or to prioritise interventions to enable manageable, short bouts of physical activity.' (Bickerdike, 2023). Cross-sectoral actions to support health within societal settings may improve population health (Newman et al., 2015). Therefore, embedding physical activity (PA) interventions into Higher Education settings may allow students to prioritise their health and wellbeing during the college day. **Methods:** Participants were recruited from the case university using a purposive recruitment strategy. Participants were from a first-year cohort while student ambassadors were recruited from a third-year cohort. The intervention took place over a period of seven weeks and included both synchronous and asynchronous elements. Verified scales and indices were used in the pre-intervention and post-intervention questionnaires to analyse the participants' levels of PA and wellbeing. Several focus groups were also conducted after the intervention. **Results:** Themes which arose included (i) the challenges and opportunities of social dynamics (ii) the necessity of personal accountability and commitment (iii) the importance of an understanding and awareness of the benefits and rewards of physical activity and (iv) the importance of planning and communication. No statistically relevant changes in PA levels or wellbeing were seen from baseline to post-intervention. Participants identified strengths and weaknesses of the programme through qualitative measures and open-ended questions. As a multi-agency project, this research included the input of health promotion practitioners and professional researchers. **Discussion:** may further the literature as well as produce a process evaluation which could contribute to the implementation of similar interventions in future. Participants identified that there was value in the intervention and recommendations for future iterations were outlined in collaboration with the participants, ambassadors and facilitators.

Irish Secondary Schools Physical Literacy Project

Student Name: *Sean Townsend*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *68*

Introduction: Physical literacy is an important factor in supporting lifelong participation in physical activity and sport. It includes not only the physical ability to move well, but also the knowledge, motivation, and confidence needed to stay active throughout life. In Ireland, many teenagers are not meeting the recommended levels of physical activity, and there is currently limited national data tracking how their physical literacy develops over time. This research project aims to assess and monitor physical literacy levels among adolescents in Dublin. It will build on previous large-scale studies such as the Children's Sport Participation and Physical Activity (CSPPA) Study and the Moving Well-Being Well project, which is the largest physical literacy study of its kind, and was led by several members of the research team. The study will focus on students in post-primary schools and will examine three key areas of physical literacy: knowledge and understanding, confidence and motivation, and physical competence. **Methods:** This study will use a mixed-Methods: approach to assess physical literacy among post-primary students. The

project will involve the collection of both questionnaire-based and physical performance data, administered across multiple sites over a four-year period. Three student questionnaires addressing the cognitive and affective domains of Physical Literacy will be utilised. A foundational movement screening will be developed to assess fundamental and functional movement skills and a physical fitness battery assessing strength, power and cardiovascular endurance will be employed. An enjoyment scale questionnaire will be used after the movement screening and the physical fitness battery. Planned data analyses include descriptive statistics, frequency distribution, between group ANOVA analyses, and correlation and regression analysis to explore relationships between domains. Research Questions; What do post primary students know and understand about physical activity and its health benefits?; How motivated and confident do students feel in participating in physical activity and what psychological or social factors influence their engagement?; What are the physical competence levels of participating students, as measured through validated movement and fitness assessments? **Results:** It is hoped to have some early pilot study data to report by the time of the ISESA conference

An evaluation of the Women in Sport Programme within Table Tennis Ireland

Student Name: *Aisling Walsh*
Location: *Building 8 – Mary Ward Centre*
Abstract No: 69

Introduction: Despite extensive research highlighting the importance of physical activity and sport, women are still more likely to drop out of sport than their male counterparts (Mielke et al., 2017). Women continue to be underrepresented in sport as athletes, leaders, coaches, officials, administrators, and within the media (Jackman et al., 2025). The purpose of this research is to positively impact the four pillars for Women in Sport set out by Sport Ireland; Active Participation, Coaching & Officiating, Leadership & Governance and Visibility in conjunction with Table Tennis Ireland (Sport Ireland, 2023). This research aims to understand the effectiveness of Women in Sport programmes within Table Tennis Ireland for participation rates and visibility. **Methodology:** Target participants (N=50) for this research will consist of Table Tennis Ireland members, Table Tennis Ireland Women in Sport programme participants and Women in Sport coaches throughout Ireland. All participants are required to be a minimum of 18 years of age. Participants will receive an Information Sheet and a Consent Form during the recruitment stage. Those who elect to participate will be requested to complete a fully anonymised web-based survey, hosted on the GDPR compliant platform 'Qualtrics'. The survey will gather information on participants demographics, and experiences and perceptions of Women in Sport initiatives they were involved in. A sub-sample of participants will be invited to partake in an interview or focus group to enable further exploration of baseline data. **Expected Outcomes:** Findings from the proposed research will be used to guide National Governing Bodies, specifically Table Tennis Ireland, on the appropriate steps of how best to increase the number of women in sporting roles. The effectiveness of the current Women in Sport table tennis programmes being implemented nationwide will be evaluated to determine whether the direction of Table Tennis Ireland and female participation in sport is progressing appropriately and sustainably. **Discussion:** Given the substantial number of initiatives and evaluations within the Women in Sport domain, this research aims to contribute to the enhancement of female participation rates in the sport with a specific motive of increasing this participation for Table Tennis Ireland.

Menstrual Cycle Influence on Physical Activity Experiences Across the Reproductive Lifespan: A Scoping Review

Student Name: *Erin Pyper*
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Abstract No: *70*

Introduction: Physiological and psychosocial changes associated with the menstrual cycle (MC) may affect physical activity (PA) experiences. Physical inactivity is a leading risk factor for non-communicable disease and premature mortality1. Despite this, the gender gap in PA participation is well-reported with women consistently reporting lower PA participation than men2, and while many indirect factors contribute, the MC needs to be explored as a significant factor. Stigma and taboos surrounding the MC may also discourage PA among women. Of note, studies have used inconsistent or undefined terminology for key variables, overlooked biological factors including sex, and often assumed parameters such as MC limiting interpretability and hindering consistency across studies3. **Methods:** The aim of the scoping review is to explore and synthesise existing literature investigating how the MC influences PA experiences across the reproductive lifespan. The review follows the PRISMA-ScR reporting protocol and is conducted according to the JBI Scoping Review Guidelines. The Biopsychosocial Model4 is used as a sensitising framework, guiding data extraction and synthesis and a reproductive lifespan framework is employed to help compare how experiences manifest throughout the stages. Data cleaning and analysis will be conducted using Covidence and study selection will be presented using a PRISMA flow diagram. **Results:** Pubmed, CINHAL, Scopus, SportDiscus, and Web of Science, were searched for relevant literature using the developed search strategy and have identified 9372 studies. After removal of 3,333 duplicates in Covidence, title and abstract screening is ongoing. Twenty randomly selected papers are currently being reviewed independently by two reviewers to ensure consistency in screening and another sample will be reviewed at full text screening. **Discussion:** This review will map existing literature investigating how the MC influences PA experiences across the reproductive lifespan. This scoping review intends to map the existing gaps in literature regarding the terminology and definitions used within this research field. It seeks to clarify how authors define and conceptualise key concepts such as menstrual and reproductive life stage status. Evaluating whether the MC has an impact on PA experiences will inform person-centred and inclusive strategies to support sustained PA across the reproductive lifespan.

Gender and Physical Activity Across the Lifespan

Student Name: *Aoife Verling*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *71*

Introduction: Regular physical activity (PA) is associated with significant physical, psychological, and social health benefits across the lifespan [1, 2]. Evidence suggests that females engage in less PA than men at nearly all ages [3]. However, existing evidence is largely derived from single-studies or aggregated meta-analyses that lack the granularity to robustly examine interactions between age and gender [4]. The aim of this study was to harmonise national datasets to conduct individual participant data meta-analysis to understand the interactions between age and gender on PA across the lifespan. **Methods:** Datasets were eligible for inclusion if they were publicly available, collected in Ireland within the past ten years, included socio-economic variables, measured sport and PA participation, and were nationally representative. Data were harmonised across datasets, including age, sex, and self-reported physical activity - total moder-to-vigorous PA (MVPA) and moderate (MPA) and vigorous (VPA) activity minutes, recorded as weekly minutes.

Linear-mixed effect models were used to examine interactions between age and PA, and sex and PA followed by a combined model including both age and sex. Dataset was included as a random effect and age was centred. **Results:** Seventy-one thousand participants were included from ten datasets (six waves of the Irish Sports Monitor and four waves of TILDA). Across all ages females accumulated significantly lower levels of MVPA than males, with particularly large differences observed for VPA. Total MVPA decreased by 17 minutes every decade of life (-17.1, 95% CI –18.5, -15.8, p<0.001). This was primarily driven by the reduction of VPA by 23.7 minutes per decade (-23.73, 95% CI –24.4, 23.1, p<0.001). **Discussion:**
These findings indicate that declines in total MVPA with age are primarily driven by reductions in VPA, while MPA remained relatively stable. These Results: highlight critical opportunities for life-stage-specific interventions to support sustained engagement in PA, particularly VPA, among females across the lifespan.

Adaptation and Enforcement under the Tackle Height Law trial: Insights from key Stakeholders

Student Name: *Daire Curran*
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Abstract No: *72*
Introduction: Lowering the legal tackle height has been introduced internationally to reduce head impact risk and influence player behaviour in amateur Rugby Union. While early evidence suggests welfare and gameplay benefits, stakeholder acceptance and implementation are critical for the success of the law trial. This study examined how players, coaches, and officials perceived (1) the ease of adapting to the new tackle height law and (2) the consistency with which officials enforced it after one full season of the trial in Irish amateur rugby. **Methods:** A cross-sectional online survey was completed by 313 stakeholders (70 coaches, 146 officials, 97 players). The survey was developed in collaboration with rugby and survey-research experts and was piloted for clarity, length, and structure before dissemination. Although the full survey covered several areas, this analysis focused specifically on adaptation and enforcement consistency. Group differences were analysed using chi squared tests in SPSS (α = .05). **Results:** Significant differences were observed between stakeholder groups. Among coaches, 54.4% agreed it was easy to adapt to the new law, compared with 61.6% of officials and 53.6% of players. However, players reported the highest difficulty, with 35.1% disagreeing that adaptation was easy, compared with 10.3% of coaches and 21.9% of officials. Perceptions of enforcement consistency showed greater divergence ($p < .05$). Most players (61.9%) and a large proportion of coaches (43.5%) were dissatisfied with enforcement consistency, whereas officials were more positive, with 61.6% agreeing that the law was easy to enforce. These findings highlight a disconnect between stakeholders during the trial implementation. **Conclusion:** The tackle height law trial revealed clear differences in stakeholder experiences of both adaptation and enforcement consistency. While over half of coaches, officials, and players reported that adapting to the new law was easy, players showed greater variability, with a larger proportion reporting difficulty compared with coaches and officials. Officials were the most positive group overall, finding the law both easiest to adapt to and easiest to enforce. In contrast, players and many coaches expressed dissatisfaction with the consistency of enforcement, indicating a disconnect between application and participant perceptions. Enhanced communication and stronger alignment between officials and stakeholders may support more effective implementation.

‘Ships in the Night’: a novel multi-disciplinary collaboration to investigate the impact of involuntary restricted sleep patterns on the health and wellbeing of maritime students in a higher education setting

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Location: *Building 8 – Mary Ward Centre*
Abstract No: *73*

Introduction: The health risks and psychosocial stressors associated with the maritime industry are well established, particularly amongst civilian seafaring and navy cohorts1. Sleep, in terms of sleep-related habits and sleep quality, is a modifiable behavioural determinant of both psychological and physiological health, which is involuntarily impacted by the nature of maritime contexts2. Examples of such involuntary influences include shift work, intensive workloads, physical environmental factors such as ship noise or vibration, and the challenges associated with working in isolated conditions3. However, to date, there are no evident studies examining the health and wellbeing of maritime students (i.e., cadets) who must undertake a mandatory sea-phase placement as part of their programme of study. **Methods:** This proposed research will employ a mixed-Methods: QUAN-QUAL design, strategically aligned with the structure of the undergraduate academic programmes in the National Maritime College of Ireland (NMCI), a constituent college of MTU. Phase 1 (QUAN) will involve a web-based survey instrument, administered to maritime students (BEng in Marine Engineering n = 40, BSc in Nautical Science n = 40, BEng in Marine Electrotechnology n = 12) at three key timepoints; (T0) baseline, (T1) whilst ‘at sea’, and (T2) following ‘return to shore’. A more intricate investigation into the associations between sleep variables and health will be implemented through weekly sleep diaries whilst participants are on their sea-phase placement. Phase 2 (QUAL) will comprise structured focus groups (FGs) with participants and interviews (IV) with professional staff members within the maritime industry, to facilitate a deeper exploration into certain themes that may arise from the survey instrument and sleep diary data. **Research to Impact:** The knowledge gap and related key findings related to this target cohort have significant implications, as impaired sleep may compromise physical and psychological health, cognitive thinking, and ultimately operational safety at sea. By identifying chronological trends in sleep parameters and associated health and wellbeing metrics among this cohort, this research will serve to inform targeted, evidence-based interventions. Furthermore, by examining the relationship between sleep disruption, wellbeing, and workplace performance indicators during sea-phase placement, potential findings may influence training structures, fatigue-management practices, and targeted student support systems, all of which will enhance cadet wellbeing, improve performance, and strengthen safety culture within maritime education and seafaring.

Injury-prevention practices in recreational runners: a survey comparing self-reported behaviours with evidence-based recommendations

Student Name: Baliguli Jinensi
Location: *Building 8 – Mary Ward Centre*
Abstract No: *74*

Introduction: Recreational running is a popular activity with known health benefits, but is associated with a high rate of musculoskeletal injuries[1]. Although recommendations for exercise-based strategies for injury-prevention are established[2], studies show that in the absence of supervision and guidance, injury-prevention strategies may not be effective[1]. While several studies have examined runners’ beliefs and perceptions[3], and others have collected data on runners’ practices[4], fewer studies focus on how runners’ injury-prevention practices align with

expert recommendations. This study aims to collect data on the injury-prevention practices that recreational runners implement, and investigate how they align with ACSM (American College of Sports Medicine) recommendations[2]. The knowledge gained from this study can be used to guide educational and interventional strategies. **Methods:** Ethical approval will be sought from the College of Medicine Research Ethics Committee, University of Galway. Approximately 100 runners aged >18 years will be recruited at sites of organised recreational running events. Data will be collected over 8 weeks in June and July 2026. In alignment with published literature1-3, a survey will be developed with 3 sections: (1) runners' risk factors for injury (including age, distance and frequency of running, previous injury); (2) runners' pre- and post-run practices; and (3) injury-prevention training that runners engage in on their non-running days. Open answers will be reported qualitatively eg. runners' description of what they do to prevent injury. Quantitative data (eg. do you perform a warm-up jog before you run?) will be analysed using IBM SPSS®, and will include categorical analysis and reporting of proportions with confidence intervals. **Results:** It is expected that most runners make efforts to perform injury-prevention exercises, but that these may not align with the evidence-base eg. possibly more static stretches pre-run than dynamic warm-ups. It is also anticipated that runners may not be aware of the importance of developing functional balance and hip strength. **Discussion:** Running-related injuries are very common[2]. By investigating how the practices of recreational runners align with the evidence-based recommendations, this study will develop important knowledge that could lead to the development of effective educational strategies and injury-prevention programmes for recreational runners.

Process evaluation methodologies in multi-site data collection of health and lifestyle behaviours: an INDEEP systematic review.

Student Name: *Angelica D'Sa*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *75*
Background: Lifestyle behaviours strongly influence chronic disease risk. A better understanding of lifestyle behaviours and their determinants can help mitigate this risk through public health intervention. However, efficient larger-scale and evidence-based interventions are often restricted by the lack of sufficiently powered and methodologically robust data sets. Multi-site data collection (MSDC) may address these limitations but face implementation challenges due to their complexity. Process evaluations are important for examining implementation and may strengthen the quality, comparability, and scalability of MSDC strategies. Therefore, the purpose of this study is to identify current process evaluation methodologies used in MSDC of health and lifestyle behaviours. **Methods**: A systematic search of MEDLINE, CINAHL, SocINDEX, SPORTDiscus, and Web of Science was conducted in May 2025. Studies were eligible if they conducted a process evaluation of a data collection methodology used to measure health or lifestyle behaviours in a multi-site setting. Screening, data extraction, and quality assessment were conducted by multiple reviewers following PRISMA guidelines. Methodological quality was assessed using previously established criteria specifically for process evaluations. **Results:** Twenty-eight studies met the inclusion criteria. Study characteristics varied widely in scale, settings, target behaviours, and data collection tools. Most process evaluations assessed acceptability or feasibility, frequently using various types of data completeness as representative measures. Only four articles used theoretical frameworks, and few evaluated implementation across multiple stakeholder levels or at multiple timepoints. Methodological quality was predominantly weak, reflecting limited depth and transparency in reporting. **Conclusion:** While the value of process evaluations is increasingly

acknowledged, evaluations of MSDC strategies are inconsistently conducted and underreported. Greater use of theoretical frameworks, multi-level and longitudinal evaluation designs, and transparent reporting is important to improve the rigour, reproducibility, and scalability of harmonised MSDC in health promotion research.

Understanding implementation of a community-based physical activity referral scheme: service growth and system integration of ULMedEx.

Student Name: *Sarah Escolme*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *76*
Introduction: Physical activity referral schemes are an effective adjunct in chronic disease management; however, evidence describing their implementation in real-world settings is limited. ULMedEx is a partnership between the university, health service and local sport partnership. It has three aims i) research excellence, ii) evidence-based service delivery, and iii) interprofessional student education via its 'living laboratory'. This study describes service and student education scale-up from 2023-2025. **Methods:** Retrospective analysis of data on referral, attendance, demographics, and primary disease classification alongside referrer characteristics and interprofessional education metrics (number, course, level and type) was conducted. Descriptive statistics (mean, standard deviation, proportions) are presented. **Results:** Individuals were referred to ULMedEx from 2023-2025 (N=311), increasing from 58 (2023), to 111 (2024), to 142 (2025). Average daily attendance rose from 11 (2023), to 33 (2024), to 46 (2025), peaking at 55 during November 2025. Most were classified as living with cardiovascular disease (85%), followed by respiratory illness (8%) and Type 2 Diabetes (7%). Average age was 65±11 years (range: 24-87), 65% males, and average distance travelled 16km (range: 2km-76km). Referrers to ULMedEx were varied, with 51% (n=158) of all referrals from cardiac consultants, 31% (n=95) from cardiac rehabilitation physiotherapists, and 18% (n=52) GPs. Students (N=138) received experiential learning via the ULMedEx 'living laboratory'. Most (88%, n=122) met course-work requirements, while 12% (n=16) volunteered via the Presidents' Volunteer Awards. Both undergraduates (62%; n=86) and postgraduates (38%, n=52) took part. All received 'Level 1' or active observation experience; 50% (n=69) progressed to 'Level 2' or supervised instruction, and 26% (n=36) were given access to ULMedEx data for research purposes. Students were from (the Department of Physical Education and Sport Sciences (n=69; studying exercise science, health and fitness), 28% (n=39) School of Medicine (studying medical education), and 22% (n=31) from School of Allied Health (studying physiotherapy or occupational therapy). **Discussion:** Adoption of a multi-disease model in 2025 enhanced referrals and attendance, and was accompanied by progressive clinical integration within regional care pathways. ULMedEx supports interprofessional education, contributing to practice-based learning alongside service delivery. Sustained scale-up requires continued system integration and formalised commissioning mechanisms to support long-term stability.

Evaluation of the League of Ireland's 'More than a club' initiative on impact.

Student Name: *Ellen Lavery*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *77*
Introduction: Sports clubs can contribute positively to community health and well-being through engagement with diverse sub-population groups [1]. The League of Ireland (LOI) currently implements a health promotion initiative known as 'More than a club' (MTC). It harnesses the

reach of the sports club setting to contribute to health and well-being and civic value. The initiative delivers a variety of programmes aimed at promoting community well-being and increasing social responsibility. The aim of this study was to evaluate the health and well-being impact of MTC at both community and participant levels. **Methods:** A mixed-Methods: design was used to capture impact. Qualitative case studies were conducted at five different sites focusing on three different anchor programmes (Walking Football, Down Syndrome Futsal and Autism Friendly initiatives). These included facilitator interviews (n=7), participant interviews (n=13), parental interviews for children's programmes (n=12), a focus group (n=10), and observations (n=9). Two different impact participant surveys were also embedded within the case studies across all sites (n=78). In addition, a community attitude and stakeholder survey was disseminated from March to April 2025 (n=719). The aim of this element was to identify the community impact of MTC. **Results:** from the case studies highlighted the meaningful value MTC had for participants. Reduced isolation and improved self-confidence were evident, directly for participants and also indirectly for their families. Participants described forming deep connections and experiencing an increased sense of belonging due to the consistent delivery of programmes. From the community perspective respondents represented a variety of groups (fan base, local businesses, local residents and partner organisations). They (84%) believed that MTC is having a significant impact on participation in sport and physical activity in their local area. Additionally, a significant impact on increasing pride in the local areas was also identified by respondents (72%). **Discussion:** The impact MTC can have on health and well-being within sub populations is evident. Anchor programmes play a significant role at both participant and community levels. This evaluation demonstrates the place that professional football clubs have as community focused organisations and how significantly they can contribute to belonging and civic pride in an area.

Theme: Physiology and Nutrition

Design of a randomized controlled trial investigating the effects of lean beef supplementation on resistance exercise adaptations in young adults

Student Name: *Morgan Lewis*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *79*

Introduction: Whole food matrices high in protein such as lean beef may augment adaptation to resistance exercise to a greater degree than isolated protein sources and conform with the recommended 'food first approach' in performance nutrition 1. However, high-quality evidence supporting lean beef's role in assisting chronic adaptation to resistance exercise is scarce. Previous studies in young adults have been limited by a lack of appropriate control groups, under reporting of the macro- and micronutrient compositional data for the nutrition interventions, short treatment periods (8 weeks) and small sample sizes 2,3.

A 12-week, 3-arm parallel, single-blinded, randomized controlled trial will be conducted to assess the impact of combined lean beef ingestion and resistance exercise on chronic resistance exercise adaptations. **Methodology:** Seventy-two untrained, healthy men and women aged 18-35 years will be randomized to one of three groups: a) 30g protein from whole lean beef, b) 30g of protein from whey or c) an isocaloric carbohydrate control. All participants will ingest a single serving of their respective treatment after each of three weekly, full-body resistance exercise sessions. Isokinetic leg extension and flexion strength, total body lean mass and fat mass will be measured pre and post the 12-week intervention period. Micronutrient concentrations, countermovement jump height, blood pressure, satiety, feasibility and sensory acceptability of the interventions will also be evaluated as secondary outcomes. A one-way Analysis of Covariance or non-parametric equivalent will be carried out to assess between-group differences using SPSS, with post hoc

analysis completed if warranted. **Expected Results:** This study has been designed to elucidate whether a 'food first approach' using lean beef can effectively enhance adaptations to resistance exercise in healthy young adults when compared to whey protein and/or no protein control. **Discussion:** Importantly, this study is designed to address limitations in the methodological design of previous studies in this area.

Nutritional knowledge, attitudes and practices for menstrual cycle symptom management among people on the island of Ireland

Student Name: *Rebecca Tarpey*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *80*
Introduction: Menstrual cycle symptoms can adversely impact quality of life, everyday functioning, and participation in physical activities1, 2. Non-clinical self-management techniques, including nutrition, are widely advocated3; nevertheless, there is a lack of research investigating individuals' knowledge, attitudes and practices (KAP) concerning these4. Understanding these elements is crucial for guiding evidence-based education and behaviour modification initiatives. This study seeks to examine knowledge, attitudes and practices about nutrition for the self-management of symptoms associated with the menstrual cycle, as well as to identify perceived obstacles to the implementation of these strategies. **Methods:** An online cross-sectional survey is being conducted among females aged 18 and older who have menstrual cycles. The survey evaluates symptoms associated with the menstrual cycle, self-management techniques, and knowledge and attitudes concerning nutritional strategies. Physical activity levels are documented to facilitate comparisons among activity profiles. The data will be examined via descriptive statistics and exploratory comparisons of activity levels. **Results:** The data collection process is currently in progress. Preliminary Results: will be presented. Analyses will assess knowledge levels concerning evidence-informed techniques, attitudes towards the significance of nutrition in symptom treatment and the self-management practices already employed. The study will identify perceived obstacles to the implementation of nutritional interventions and examine variations across levels of physical activity. **Discussion:** This study will interpret knowledge, behavioural patterns, and perceived obstacles concerning nutrition and physical exercise for the self-management of symptoms associated with the menstrual cycle. The findings will guide the creation of specialised educational initiatives and future interventions designed to enhance symptom management and facilitate the design of a nutrition education programmes to promote symptom management. Comparison of two days of moderate or high carbohydrate intake on physical and cognitive performance in female players during a simulated soccer match protocol

Comparison of two days of moderate or high carbohydrate intake on physical and cognitive performance in female players during a simulated soccer match protocol

Student Name: *Laura McManus*
Location: *Building 8 – Mary Ward Centre*
Abstract No: *81*
Introduction: High carbohydrate (CHO) intakes are recommended in the 24-48 h before soccer matches to increase glycogen stores and delay the development of match-related fatigue [1, 2], but this concept is unexplored in female soccer players [3]. This study compared the effects of two days of divergent CHO intake on physical and cognitive performance during a simulated soccer match. **Methods:** Using a double-blind, placebo-controlled, crossover design, n=15 female field-based intermittent team sport players consumed either a high CHO diet (6 g/kg BM/day;

HIGH) or an isocaloric moderate CHO diet (3 g/kg BM/day; MOD) for two days after completing a standardised (~35 min) intermittent exercise protocol. For the main experimental trials, participants completed the Loughborough Intermittent Shuttle Test as 5×15-min blocks of intermittent running followed by a shuttle run time to exhaustion (TTE), with cognitive performance assessed before and after the test. **Results:** There was no significant difference (6.9 [-71.1, 84.8] s) in TTE between conditions (HIGH, 295±137 s; MOD, 288±133 s; P=0.852; g=0.05). Sprint times were faster during HIGH compared with MOD at Block 3 (P=0.021; g=0.33), Block 4 (P=0.035; g=0.31), and Block 5 (P<0.001; g=0.34). RPE was lower during HIGH compared with MOD after Block 1 (P<0.001; g=0.78) and Block 2 (P=0.018; g=0.49). Reaction time in the Task Switching test was improved from pre- to post-exercise in HIGH (P=0.017; g=0.67), but not MOD (P=0.913; g=0.05). **Discussion:** These results suggest that female soccer players may benefit from increasing daily CHO intake to at least 6 g/kg BM for the two days preceding competitive matches.

Day 2 – Friday 22nd May 2026

13:20 – Undergraduate Poster Presentations

Can Ischemic Pre-conditioning Effect Workload, Performance and Recovery of Team Sport Athletes?

Student Name: *Adam Byrne (TUS Athlone)*
Abstract No: *1*
Introduction: IPC is a brief, non-invasive intervention involving repeated cycles of short bouts of circulatory occlusion, followed by reperfusion, applied using a cuff around the lower limbs. Despite growing interest in its application within sport, evidence for its efficacy in team sport athletes remains limited, particularly in female populations. The purpose of this study was to examine the effects of IPC on neuromuscular performance, high intensity intermittent exercise and perceptual responses in senior female Gaelic football athletes. **Methods**: A double blind, randomised counterbalanced, crossover-design was employed on 12 senior club-level female Gaelic football athletes (age, 21 ± 3.8 years; height, 161.9 ± 4.2 cm; body mass, 65.1 ± 9.7 kg) completing four experimental visits across placebo and IPC conditions, separated by a 10-day washout period. Participants attended a familiarisation session approximately one week prior to experimental testing. The IPC condition consisted of 3x5 minutes occlusion and reperfusion applied to the upper thigh at 48 hours, 24 hours and immediately before testing. The placebo condition involved ingestion of a cornflower capsule, following the same timeline. Participants were tested pre, immediately post and 48 hours post a standardised training session. Outcome measures included countermovement jump, isometric knee extensor strength, YoYo Intermittent Recovery Test Level 1 and VAS perceptual measures. **Results:** No significant between-condition differences were observed for countermovement jump height, movement start to peak power, isometric knee extensor peak force or average force ($p = .101$ to $.963$, $\eta p^2 = .000$ to $.123$). YYIR1 performance showed no between-condition difference (IPC 803 ± 338 m; placebo 783 ± 312 m; $p = .647$, $d = 0.136$). Perceptual responses showed no significant differences between-conditions ($p = .059$ to $.968$). **Conclusions:** IPC did not produce significant improvements in workload, recovery perception, or subsequent neuromuscular performance measures, compared to a placebo indicating limited practical benefit.

Development and Content Validation of a Rapid Weight Loss Questionnaire for Jockeys (RWLQ-J)

Student Name: *Lucy McLoughlin (DCU)*

Abstract No: *2*

Introduction: Professional jockeys experience unique occupational demands, frequently combining repeated acute rapid weight loss (RWL) with chronic energy restriction to meet fluctuating race weight allocations. Existing behavioural assessment tools, primarily developed for combat sports, do not adequately reflect the ongoing and repeated weight-making demands of professional horse racing. Therefore, this study aimed to develop and establish the content validity of a jockey-specific Rapid Weight Loss Questionnaire (RWLQ-J), designed to assess the frequency, magnitude, and methods of weight-making behaviours, alongside the social and motivational factors underpinning these practices. **Methods:** The RWLQ-J was adapted from an existing validated instrument and tailored to the professional racing context. The draft instrument comprised 18 items across six sections, incorporating the COM-B behavioural framework to capture motivational and social drivers of weight-making. Content validity was evaluated using a structured two-round expert review (Round 1: n = 10; Round 2: n = 8). Experts rated each item on clarity, relevance, and appropriateness of scoring using a four-point Likert scale (1 = inadequate to 4 = excellent). Items were retained if they achieved a mean score of ≥3.0. Qualitative feedback informed targeted revisions between rounds. **Results:** In Round 1, 15 items achieved mean scores of ≥3.0. Three items required revision due to issues related to clarity and scoring structure. Qualitative feedback identified four themes: ambiguous timeframes, unrealistic response ranges, unclear terminology, and inconsistent measurement units. Following targeted revisions, all revised items achieved acceptable ratings in Round 2. One section assessing mood states was removed based on expert feedback to reduce respondent burden, resulting in a final instrument comprising five sections. **Discussion:** The RWLQ-J is the first content-valid instrument developed specifically for professional jockeys. By addressing a longstanding measurement gap, it provides a foundation for future epidemiological research, risk stratification, and evaluation of athlete welfare interventions in horse racing, supporting the development of evidence-based policy and safeguarding practices.

Moving better, feeling better? Is a change in physical function associated with health related quality of life in ULMedEx participants.

Student Name: *Eimear Ní Luasa (UL)*

Abstract No: *3*

Introduction: Community-based exercise programmes (CBEPs) are well established in the secondary prevention of cardiovascular disease (CVD).[1] However, whether changes in physical function (PF) are associated with changes in health-related quality of life (HRQoL) in CVD populations remains unclear.[2] This study examined longitudinal changes in PF and HRQoL in adults with CVD participating in the ULMedEx CBEP and explored associations between them. **Methods:** A prospective longitudinal study examined 20 adults with CVD enrolled in a CBEP (ULMedEx), assessed at baseline (T0), 6 months (T1), and 12 months (T2). Participants were predominantly male (90%) with a mean age of 72.5 ± 7.8 years. PF was assessed using the Six-Minute Walk Test (6MWT), Timed Up and Go (TUG), Five-Times Sit-to-Stand (5STS) and 30-Second Sit-to-Stand (30STS). HRQoL was assessed using the EQ-5D-5L and EQ-VAS. Repeated-measures ANOVA examined changes over time and Pearson correlations assessed associations between PF and HRQoL. **Results:** Significant improvements were observed in all PF domains including functional mobility (TUG: 7.27s to 6.23s, $p < .001$), lower-body strength (5STS: 11.36s to 9.28s, $p < .001$; 30STS: 13.10 to 16.30 reps, $p < .001$), and aerobic capacity (6MWT: 515.67m to 603.95m,

p < .001) over 12 months. HRQoL remained stable across all timepoints (EQ-5D index p = .531; EQ-VAS p = .890). No significant associations were identified between changes in PF and HRQoL. **Discussion:** Participation in ULMedEx produced significant improvements in PF alongside maintained HRQoL in adults with CVD. The absence of PF-HRQoL association likely reflects ceiling effects in a higher-functioning cohort, where high baseline HRQoL scores (mean EQ-5D = 0.86) limited the potential for detectable improvement. Maintenance of HRQoL represents a clinically meaningful outcome in this population, as lower HRQoL is associated with increased rehospitalisation and mortality risk in CVD.[4] Larger controlled studies using disease-specific HRQoL measures are warranted to fully capture the patient-centred benefits of CBEPs.[1,3]

The Association Between Physical Activity and Sleep Quality Across the Menopausal Transition.

Student Name: *Laura O'Connor (TUS Athlone)*

Abstract No: *4*

Introduction: Menopause frequently disrupts sleep quality, with physical inactivity potentially exacerbating symptoms. Despite recommendations for physical activity (PA) to alleviate menopausal complaints, evidence on PA's protective role against sleep disturbance during the menopausal transition remains inconsistent. This cross-sectional study examined associations between self-reported PA, menopausal symptoms, and sleep quality in perimenopausal and postmenopausal women. Primary research question: Is there an association be-tween levels of physical activity and sleep quality in peri and post-menopausal women? **Methods:** 162 women completed an online questionnaire through Microsoft Forms. The questionnaire consisted of four sections, In-formed Consent, the Pittsburgh Sleep Quality Index (PSQI), Menopause Rating Scale (MRS), and International Physical Activity Questionnaire-Short Form (IPAQ-SF). Non-parametric analyses (Spearman correlations, Kruskal-Wallis, Mann-Whitney U, chi-square) addressed non-normal data distributions (Shapiro-Wilk p<.001 for most variables). **Results:** Poor sleep quality prevailed (PSQI median=10.0, IQR=6.0). PSQI positively correlated with MRS (ρ=.27, p<.01; age-adjusted ρ=.28, p<.001), but only weakly with total MET-minutes (ρ=-.17, p=.026). HRT users showed significantly better sleep (PSQI median=9.0 vs 11.0, U=3812.5, p=.036), while menopausal status showed no difference (H(2)=0.30, p=.862). IPAQ categories (low/moderate/high) did not differ by menopause stage ($\chi^2(4)=2.48$, p=.649) or HRT use. **Conclusions:** Physical activity showed minimal independent benefit for sleep quality during menopause. Menopausal symptom severity and HRT status emerged as stronger predictors than PA. Findings challenge PA-focused interventions as primary sleep strategies, prioritising symptom management and HRT consideration instead.

Impact of Reward Systems on Extrinsic Motivation and Team Cohesion In Rugby

Student Name: *Eoin Healy (TUS Moylish)*

Abstract No: *5*

Methods: Four players from the men's amateur rugby union team Fermoy RFC, located in County Cork, Ireland participated in semi-structured one-on-one interviews to gather data. Because they enable a thorough examination of players' individual experiences, attitudes, and opinions regarding motivation and team dynamics, qualitative interviews were chosen as the best methodology for this study **Results:** The findings indicate that the reward system within the Fermoy RFC squad has a generally positive but varied impact across motivation, team dynamics, and cohesion. Rewards—particularly end-of-season awards—enhance motivation for most players, though their influence differs depending on whether individuals are more extrinsically or intrinsically driven, with older players tending to value social aspects over recognition. In terms

of team dynamics, rewards were seen to create a balance between healthy competition and teamwork, although some concerns around jealousy and individualism were noted. Overall, the system aligns well with team values by reinforcing positive behaviours, boosting morale, and supporting cohesion. **Discussion:** This study found that reward systems within the Fermoy RFC squad generally have a positive influence on player motivation and team dynamics, though their impact varies depending on whether players are more intrinsically or extrinsically driven. Most participants reported that rewards enhanced their effort and focus, supporting the role of extrinsic motivation as outlined in Self-Determination Theory, particularly through externally regulated behaviour. End-of-season awards were seen as more motivating than matchday rewards, suggesting that longer-term recognition may better support feelings of competence. However, intrinsic motivation was also evident, especially among older players who valued social interaction and personal satisfaction over external rewards.

Acute Effects of Isometric Resistance Training on Jump Performance among Youth Basketball Athletes

Student Name: *Roshen Sivabalan (TUS Moylish)*

Abstract No: *6*

Introduction: This study examines the acute effects of isometric resistance training on jump performance among youth basketball athletes. The aim of this study is to determine if isometric resistance training could provide a greater immediate enhancement in jump performance after one intervention session, as compared to a traditional dynamic resistance training session. **Method:** A sample of 15 (n=15) youth basketball players were divided into an experimental group (n=8) which performed isometric exercises (isometric mid-thigh pull, isometric hip thrust, and isometric calf raise), and a control group (n=7) which completed dynamic versions of the exercises (hex bar deadlift, hip thrust, and calf raise). Pre and post intervention tests were taken to measure jump performance, by using counter movement jumps (CMJ) and standing broad jumps for vertical and horizontal jump performance respectively. **Results:** The findings of this study were not statistically significant, as the p values obtained from an independent t test conducted using SPSS software (version 30.0.0.0) were p> 0.05. Specifically, the mean percentage differences between pre and post intervention measures for both vertical and horizontal jump performance were non-significant, with p values of 0.402 for CMJ and 0.781 for the standing broad jump. However, there was an increase in jump performance pre and post intervention among the experimental group that performed isometric resistance training, (1.10% increase in CMJ and 0.85% increase in standing broad jump), and a decrease in jump performance among the control group that performed dynamic resistance training (-0.85% in CMJ and -0.06% in standing broad jump). **Discussion:** The findings of this study provide valuable practical applications for strength and conditioning coaches working with youth athletes. Isometric exercises represent a time efficient, low fatigue strategy for acutely enhancing performance, particularly during congested competition schedules. They can be effectively incorporated into warm-ups or pre-training routines as a preparatory tool to prime the neuromuscular system before sessions or matches that involve high volumes of jumping.

Impact of a 4-Week 120% MAS HIIT Intervention on Estimated VO_2 Max in U20s League of Ireland Soccer Players.

Student Name: *Matthew O'Sullivan*

Abstract No: *7*

Introduction: High-intensity interval training (HIIT) is an effective way of increasing the aerobic engine, which is a key metric for performance in soccer (Helgerud et al., 2001). Research still needs to examine how short-term Maximal Aerobic Speed (MAS) conditioning protocol impacts youth soccer players. The aim of the research study is to see the effects of a 4-week intervention, with 120% MAS HIIT block to investigate the estimated maximal oxygen uptake (VO_2 max). **Methods:** 7 male players (n = 7) from the U20s Treaty United team took part in the intervention conducted twice a week. Each Session consisted of 3 sets of 10 repetitions with 15s working and 15s resting (1:1 work to rest ratio) at 120% with 3 minutes recovery between sets. The pre – and post - intervention VO_2 max was estimated by using the Yo-Yo Intermittent Recovery Test Level 1. A paired samples t-test was used to calculate the statistical analysis (a = 0.05). **Results:** Average VO_2 max went from 52.24 ± 4.85 $ml \cdot kg^{-1} \cdot min^{-1}$ to 56.00 ± 4.59 $ml \cdot kg^{-1} \cdot min^{-1}$, mean improvement of 3.76 $ml \cdot kg^{-1} \cdot min^{-1}$ (7.19%). This improvement was statistically major, ($t(6) = 5.98$, $p < 0.001$, with a very large effect size ($d = 2.26$). **Discussion:** This 7.19% increase algins perfectly with the current and previous literature, which fits with in the 4-11% range that aerobic adaptations occur in and aligns well with the current research out there on HIIT in youth soccer players, Kunz et al., 2019. The result is very comparable to Dupont, where it is seen that there is an 8.1% improvement in maximal aerobic speed in a protocol for HIIT in soccer players, Dupont, Akakpo, and Berthoin, 2004. **Limitations:** Very small sample size (n = 7) which is not general to the overall population and external training factors like extra games, sports and nutrition considerations. **Conclusion:** A 4-week 120% MAS HIIT block is an effective and practical method with a 7.19% increase in estimated VO_2 max in U20s male soccer players, showing that even low volume, high intensity training is a time efficient way to improve aerobic capacity (VO_2 max) in younger players.

Exploring the influence of anti-hyperglycaemic drug administration on physical activity and skeletal muscle mitochondrial energetics in older adults with type 2 diabetes.

Student Name: *Kevin Normoyle (UL)*

Abstract No: *8*

Introduction: Age-related declines in physical activity can lead to reduced functional fitness and an increased risk of chronic diseases, such as type 2 diabetes mellitus (T2DM) (Milanovic et al. 2013). Exercise is a well-established intervention for glycaemic control in older adults, lowering blood glucose through contraction-mediated glucose uptake (Zahalka et al. 2000). Pharmacological interventions are also widely used, with metformin representing the most common first-line therapy for T2DM, primarily reducing blood glucose by inhibiting hepatic gluconeogenesis (Lin et al. 2023). However, metformin can inadvertently inhibit mitochondrial Complex I, potentially attenuating skeletal muscle mitochondrial respiration and paradoxically reducing exercise capacity (Ramos et al. 2024).**Methods:** Using data from the Study of Muscle, Mobility, and Aging (SOMMA), participants were stratified by metformin use and glycaemic control. This study analysed differences in exercise capacity (mean daily step count), aerobic capacity (VO_2 peak) and skeletal muscle mitochondrial energetics in vivo (31-P MRS, ATPmax) and ex vivo (high resolution respirometry from vastus lateralis muscle biopsy; Complex I) between older adults (70-94 y/o; n = 829) taking metformin versus those not taking the drug. **Results:** Metformin users with HbA1c ≥ 6.5% (Group 1) had significantly higher BMI, VAT, HbA1c, ATPmax,

and mean daily step count compared to the healthy control group (no medication, HbA1c < 6.5%) (Group 4) for non-adjusted baseline data. Group 1 displayed significantly lower ATPmax than Group 4 ($p < 0.01$), as well as a significantly lower mean daily step count ($p < 0.01$) after adjusting for demographic and adiposity-related covariates. No adjusted between-group differences were observed for VO2 peak or ex vivo mitochondrial energetics (Complex I). **Discussion:** These findings suggest that, despite its glycaemic benefits, metformin is associated with reduced mitochondrial energetics and exercise capacity in older adults with poor glycaemic control. Accordingly, individuals taking metformin may benefit from tailored physical activity interventions to mitigate these unintended effects. Future longitudinal studies are required to deepen the understanding of the long-term effects of metformin.

Association Between Hip Range of Motion and Abductor Strength with Upper Limb Injury in Racket Sport Athletes

Student Name: *Patrick Lacey (SETU, Carlow)*
Abstract No: *9*
Introduction: Upper limb injuries represent a significant burden in racket sports 1,2. Disruptions in the kinetic chain, particularly at the hip, are known to cause compensatory upper limb loading and increased injury risk in overhead sports 3,4. However, this relationship is not established in racket sport populations. This study aimed to investigate the association between hip rotational range of motion (ROM), abduction strength and upper limb injury history in racket sport athletes. **Methods:** A cross-sectional retrospective comparative design was used. Forty-one racket sport athletes (18-40 years) were classified according to upper limb injury history in the previous 12 months (Injured n=11; Non-Injured n=30). Passive hip internal rotation (IR) and external rotation (ER) ROM were measured bilaterally. Isometric hip abduction strength was measured using handheld dynamometry. Rotational imbalance (ER-IR) and total rotational arc were calculated. Between-group differences were analysed using independent t-tests or Mann-Whitney U tests, with binary logistic regression used to examine associations with injury. **Results:** Injured athletes demonstrated significantly greater dominant side rotational imbalance (Injured: 20.8±11.3°; Non-injured: 11.4±12.7°; $t(39)=-2.157$, $p=0.037$). Each 1° increase in imbalance was associated with a 7% increase in injury odds (OR=1.07, 95% CI 1.00–1.15, $p=0.048$), remaining significant after adjusting for sex. No significant differences were found for isolated hip ROM measures or abduction strength ($p>0.05$). **Discussion:** These findings suggest that hip rotational imbalance may be a clinically relevant factor in upper limb injury risk in racket sports, potentially through altered force transfer along the kinetic chain. Screening and rehabilitation strategies should consider rotational symmetry rather than isolated measures. Prospective studies are required to confirm causality.

The relationship between lower body strength characteristics and medicine ball throw performance in amateur boxers

Student Name: *Kai Corcoran Davis (SETU, Carlow)*
Abstract No: *10*
Aim: This study investigated the relationship between lower body maximal isometric strength, explosive strength and fast maximal dynamic strength and medicine ball punch throw (MBPT) performance in eight trained amateur boxers. **Methods:** MBPT performance was assessed using a technique that resembled a rear hand punch. Peak velocity, peak power, and acceleration were measured, and results were grouped into rear and lead arms as well as the boxers self-reported

preferred stance. Jump height, peak power, relative peak power, peak concentric force, and relative peak concentric force were measured in the countermovement jump (CMJ) tests. Peak force, relative peak force, RFD (250ms) and force at 150ms were assessed in the isometric midthigh pull (IMTP) tests. The limbs were analysed as bilateral, left and right, as well as in accordance with the boxers preferred stance with legs being labelled as lead and rear. **Results:** The preferred stance MBPT showed higher scores than a non-preferred stance. Minimal differences were seen between left and right arm throws. A Shapiro Wilk test for normality was conducted, followed by a Pearsons correlation analysis ($P < 0.05$). A strong significant correlation was found between left arm MBPT peak power and acceleration and right leg IMTP peak force. MBPT right arm peak velocity displayed a strong significant correlation to CMJ jump height and peak power. No significant correlations were found between MBPT preferred stance performance and IMTP and CMJ result. **Discussion:** These findings were not comprehensive enough to draw similarity between lower body correlations of the MBPT and to that of a rear hand punch. This may suggest that lower body strength characteristics have less influence on the MBPT compared to punches involving impact, or that the MBPT may not be a valid punch performance proxy as has been argued.

The Prevalence of Traumatic Knee Injuries in Female Gaelic Games Athletes

Student Name: *Alexandra Struycken (SETU, Carlow)*

Abstract No: *11*

Introduction: Traumatic knee injuries are common in female athletes; however, epidemiological data related to ladies Gaelic football (LGF) and camogie are limited. Therefore, this study aimed to determine the prevalence and characteristics of traumatic knee injuries in female Gaelic games. **Methods:** A cross-sectional survey was completed by female Gaelic games players (≥18 years) across multiple codes (LGF/camogie) and levels (club/collegiate/county). Data collected included demographics, traumatic knee injury occurrence and injury characteristics. Associations between injury and code, age, and playing level were analysed using chi-square tests. **Results:** A total of 182 players responded. The annual prevalence of traumatic knee injuries was 16.9% with a point prevalence of 10%. No significant associations were observed between playing code, age or level ($p>0.05$) and traumatic knee injuries. Injuries were often severe, with 28% of cases reporting symptoms lasting longer than six months with all of these athletes experiencing time-loss from sport. The majority of players (96%) sought medical help. Ligament injuries were the most commonly reported diagnosis, frequently presenting as combined injuries (n=11). Notably, 8 anterior cruciate ligament (ACL) injuries were reported, accounting for approximately one-third of all traumatic knee injuries. **Discussion:** Traumatic knee injuries represent a substantial burden in female Gaelic games, often resulting in prolonged symptoms and time-loss. The high proportion of ACL and combined ligament injuries highlights the need for targeted injury prevention strategies. Future prospective studies are required to better understand injury mechanisms and inform the development of effective, sport-specific prevention programmes.

Is there a Relationship between Psychological Wellbeing and Neuromuscular Fatigue in Irish Dancers

Student Name: *Thomas Jack (TJ) Cosgrove (MTU, Kerry)*

Abstract No: *12*

Introduction: Irish dancing is one of the most under researched sports and has left an immense number of gaps in our knowledge on the innerworkings of the Irish dance industry. This paper

investigates the relationship between psychological wellbeing and neuromuscular fatigue in Irish dancers. investigating if an Irish dancer's psychological state can impact their performance outcome and if one's psychological state can be trained to improve their performance under challenging circumstances. **Method:** The research's methodology was conducted through qualitative studies, using the Braun and Clarke, 2006 method for thematic analysis on the 5 in depth, semi structured interviews. The participants comprised of 4 elite level Irish dancers and 1 sports psychologist and explored their perceived relationship with their psychological and physiological state. **Results:** Key findings discovered that psychological and physiological states can't be separated and work simultaneously with each other. Indicating that if one is affected, the other experiences knock on effects. Additionally, the Irish dancers psychological mind can be trained and should be trained to elevate their performance outcome. **Discussion:** The participants perceived experiences and coping strategies to overcome the stressors within the Irish dance industry were highlighted via the objectives the study. Discussion around the social support and environment that surrounds each dancer and how stress manifests itself physically(Shannon, 2018) . Additionally, many participants noted the challenges faced when dancing with a negative mental state, mentioning increased chance of injury and burnout. Also, the lack of knowledge out in regard to recovery and how to help prevent maladaptive behaviors e.g. perfectionism (Armstrong and McManus, 2011). Furthermore a participant expresses the need for training structure reform, potentially taking inspiration from ballet (Ballet.ie, 2026). By doing so aids the likelihood of reducing injury rates within the sport (Cahalan. R, 2020). **Conclusion:** The need for Irish dance specific research to be done on the complexities of this artistic sport and how wellbeing can be influenced and the knock on affect it may have on performance

Does hormonal contraception influence adaptations to aerobic exercise?

Student Name*: Eva Isdell (DCU)*

Abstract No: *13*

Introduction: Oral contraceptive (OC) use alters the hormonal environment compared to naturally menstruating women during exercise; however, its effect on exercise-induced physiological adaptations remains unclear. This study aimed to investigate the influence of OC use on aerobic capacity, fat oxidation markers and body composition following a 6-week high-intensity interval training (HIIT) program. **Method:** Ten recreationally active females (n=10) were assigned to either a naturally menstruating (NM, n=7) or oral contraceptive (OC, n=3) group. Participants completed a 6-week HIIT intervention consisting of three indoor cycling sessions per week. Pre- and post-intervention assessments were conducted to evaluate peak oxygen uptake (VO2peak), maximal power output (Wmax), maximal fat oxidation (MFO), the intensity at which MFO occurs (FATmax), and body composition. Data were analysed using paired and independent samples t-tests, with statistical significance set at $p<0.05$. **Results:** Absolute VO2peak increased in the total (+11.7±8.8%, $p<0.001$, Hedges' g=1.44) and NM group (+13.6±8.9%, p=0.004, Hedges' g=1.50), but not in the OC group (+7.0±6.0%, p=0.188, Hedges' g=0.64). A similar pattern was observed for relative VO2peak (total: +11.7±7.5%, $p<0.001$, Hedges' g=1.63; NM: +12.8±8.5%, p=0.004, Hedges' g=1.52; OC: +9.2±5.0%, p=0.114, Hedges' g=0.88). Wmax also increased in the total group (+16.8±12.1%, p=0.003, Hedges' g=1.19) and NM group (+19.7±8.7%, p=0.012, Hedges' g=1.18), with not-significantly in the OC group (+10.0±8.7%, p=0.184, Hedges' g=0.65). No within-group differences in training-induced adaptations in FATmax or MFO were observed following the intervention. Between-group differences were non-significant for all variables, except reduced body fat percentage in the OC group compared to the NM group (-7.4±6.5% vs +0.6±1.1%, p=0.012, Hedges' g=2.03). **Discussion:** Research investigating the influence of hormonal contraception on aerobic adaptations is limited, with only three studies identified to

date (1–3). Altered hormonal signalling pathways may be a potential mechanism for differences in aerobic adaptations, although not definitively established. The findings in this study are limited by the sample size and must be interpreted with caution. **Conclusion**: Six weeks of HIIT improved aerobic capacity in the total cohort and NM women, whereas no significant improvements were observed in OC users. OC use did not significantly influence training-induced physiological adaptations compared to NM women.

A Comparison of Body Composition Analysis Methods in a Cohort of Brazilian Jiu Jitsu Athletes

Student Name: *Darragh Duffy (ATU Sligo)*
Abstract No: *14*

Introduction: Accurate assessment of body composition (BC) is important for health and performance. Air displacement plethysmography (ADP) provides high accuracy (Cataldi et al., 2024) but is costly and less accessible. Bioelectrical impedance analysis (BIA) and body mass index (BMI) are widely used despite concerns regarding validity in athletic populations. This study evaluated handheld BIA devices and BMI compared to ADP in Brazilian Jiu Jitsu (BJJ) athletes. **Method:** Fifteen, male, competitive BJJ athletes (32.87 ± 11.4 years) completed BC assessment using ADP and two handheld BIA devices (Omron HBF306, Omron BF306). BMI was calculated from anthropometric data. ADP testing was performed in duplicate under standardised conditions. Paired t-tests and correlation analyses assessed differences and relationships between methods. **Results:** No significant differences were observed between ADP and BIA devices (p=.521; p=.869). Significant positive correlations were found (r=.698, p=.004; r=.552, p=.033), but with notable individual variability. These results indicate similar group-level trends but not absolute equivalence between methods. BMI classifications were inconsistent with ADP, with 26.6% of participants classified as overweight despite being categorised as “moderately lean.” **Discussion:** Despite moderate-to-strong correlations, BIA showed substantial individual-level variability and measurement error relative to ADP, underestimating BF% in 66.6% of participants. These findings are consistent with previous research (Smolik et al., 2025), reporting poor agreement between ADP and BIA and limited interchangeability. BIA may be more suitable for longitudinal tracking under controlled conditions, while BMI is limited in athletic populations due to inability to distinguish fat mass from fat-free mass. The absence of formal agreement analysis (e.g., Bland–Altman) limits quantification of bias and interchangeability. Findings are also limited by the small, homogeneous sample. **Conclusion:** Handheld BIA devices show moderate-to-strong correlations with ADP, indicating similar group-level trends, but are not sufficiently accurate for individual one-off body composition assessment in BJJ athletes. ADP or comparable methods remain preferable where precision is required, though BIA may be useful for monitoring changes over time. BMI is also inappropriate for lean athletic populations due to its inability to distinguish body composition components.

Effects of Isometric and Plyometric Conditioning Activities on Post-Activation Performance Enhancement: Influence of Training Status in a Randomised Crossover Trial.

Student Name: *Daire Daly (SETU, Waterford)*
Abstract No: *15*

Introduction: Post-activation performance enhancement (PAPE) describes the acute enhancement of voluntary neuromuscular performance following a high-intensity conditioning activity (CA) (Boullosa, 2021; Tillin & Bishop, 2009). Training history has been proposed as a key moderator of PAPE, as resistance-trained athletes may better tolerate the balance between

potentiation and fatigue (Seitz & Haff, 2016). While heavy resistance-based CA are well documented, it remains unclear whether isometric or plyometric CA elicit a comparable PAPE response in field athletes (Seitz & Haff, 2016). Therefore, this study compared the effects of isometric and plyometric CA on countermovement jump (CMJ) performance and examined whether training history influenced PAPE outcomes. A randomised crossover experimental design comprising a control session and two CA sessions (isometric and plyometric) was employed on collegiate field athletes (n=20). Training history was assessed via questionnaire and classified using the resistance-training categorisation model (Junior et al., 2021), with participants grouped into higher-trained or lower-trained. CMJ performance was assessed using dual force plates, deriving jump height, peak velocity, rate of force development (RFD) and modified reactive strength index (mRSI). Mixed repeated-measures ANOVA assessed CA, training group, and CA × training group interactions. Individual responder analyses were conducted using changes exceeding the smallest worthwhile change. **Results:** Neither CA produced significant main effects for jump height, peak velocity, RFD, or mRSI. Similarly, no significant CA × training level interaction effect was observed ($p > 0.05$), despite greater absolute performance values in the higher-trained group. Inter-individual analysis revealed substantial response variability, with a greater proportion of positive responders for jump height following the isometric CA (58%) than the plyometric CA (37%), whereas peak velocity responses were comparable. Training status did not moderate acute PAPE responses, despite a clear difference in baseline performance capacity. The lack of group-mean effects alongside substantial inter-individual heterogeneity highlights limitations of uniform CA prescription. Isometric and plyometric CA did not produce a consistent group-level improvement in CMJ performance, nor did training history moderate the potentiation response. However, heterogeneous individual responses — particularly following the isometric CA - highlight the potential value of task-specific CA selection and individual monitoring when implementing PAPE strategies.

The Effect of a Functional Ankle Support Brace on Muscular Strength and Reaction Speed in College Students with Previous Ankle Sprains

Student Name: *Joseph Murphy (ATU, Sligo)*

Abstract No: *16*

Introduction: Ankle sprains are among the most common recurrent lower-extremity injuries (Mugno and Constant, 2023). Functional ankle braces are commonly used for preventing reinjury (Slivšek et al., 2026). Some studies suggest that braces may reduce muscle activation (Feger et al., 2014), which may negatively impact ankle strength long-term and contribute to ankle reinjuries, while other studies show no significant impact on reaction speed or agility (Mann et al.,2019). This study aimed to investigate whether functional ankle braces had any acute negative impacts on muscular strength and reaction speed in college students with prior ankle sprains. **Methods:** A total of 11 participants (M:8; F:3; 20.9 ± 1.0 yrs) were assessed in this study. Peak torque (N·m) during ankle inversion and eversion was assessed concentrically using an isokinetic dynamometer (Biodex System4) at 30˚/sec. Reaction speed (m/s) over a 2-metre distance was measured using TCi timing gates. The participants were tested under two conditions: with and without the ankle brace. Paired samples t-tests or Wilcoxon signed-rank tests were used based on data distribution. **Results:** Inversion peak torque (median) increased from 22.65 to 26.15 N·m (+14.34%; p=0.541, r=0.19), while the peak torque for eversion (mean) decreased from 30.36 ± 8.41 to 28.31 ± 8.76 N·m (-6.99%; p= 0.128, d=0.38). Reaction speed (median) changed from 3.28 to 3.57 m/s (+8.47%; p=0.386, r=0.26). Although percentage differences were observed, none of the results reached statistical significance. **Conclusion:** These findings suggest that functional ankle braces do not

negatively affect muscular strength or reaction speed. The findings in the study are valuable for athletes, coaches and physiotherapists, as they reinforce the use of braces as a preventive tool without hindering performance during short-term use. Future research should focus on investigating the long-term (chronic) effects of brace use, as this study found no acute effects on muscular strength or reaction speed. A larger sample size to improve the generalisability of the results.

Comparing the Effects of Pre-Event Massage Vs RAMP warm-up protocol on Athletic Performance

Student Name: *Dáire Kennelly (MTU, Kerry)*
Abstract No: *17*
Introduction: This study investigated the acute effects of pre-event massage (PEM) and a Raise, Activate, Mobilise and Potentiate (RAMP) warm-up protocol, GAA 15 injury prevention programme (GAA 15), on athletic performance in collegiate Gaelic football players. Pre-performance strategies are commonly used to improve neuromuscular readiness and reduce injury risk. However, there is limited evidence directly demonstrating GAA 15 enhances performance, as it was developed mainly as an injury prevention protocol (Kelly and Lodge, 2018; O'Malley et al., 2017), while PEM has shown inconsistent or negligible results (Arabacı, 2008; Andersen and Aagaard, 2013). The objective was to determine which intervention more effectively improves performance outcomes. **Method:** A quantitative, repeated measures experimental design was applied. Eight male collegiate Gaelic football players completed both intervention conditions across two testing sessions. Performance was assessed using force plate measures including Countermovement jump (CMJ), Isometric mid-thigh pull (IMTP) and Hop test (Hop). Testing occurred at baseline (Pre) and at 0 (T1), 10 (T2) and 15 (T3) minutes post-intervention. Perceived readiness was recorded using a Likert scale. Data were analysed using repeated-measures ANOVA and Spearman's correlation. **Results:** The results showed that the GAA 15 protocol significantly improved CMJ performance immediately at T1 ($p = 0.020$), showing improved acute explosive performance. This effect was not maintained at subsequent time points. No significant changes were observed in IMTP or Hop test performance under GAA 15. PEM did not significantly improve any performance measure. Perceived readiness did not consistently correlate with objective performance outcomes. **Discussion:** These results indicate that the GAA 15 protocol is more effective than PEM in increasing acute explosive performance. Although, PEM showed improved psychological readiness, this does not translate to measurable performance gains. **Conclusion:** Additional research should investigate larger and more diverse sample sizes, alternative massage protocols and the effect of using PEM and GAA 15 together on physiological measures.

Relationship between metrics derived via the countermovement and rebound jump and change of direction and acceleration performance.

Student Name: *Dáire O' Shea (UL)*
Abstract No: *18*
Introduction: Jump performance has been shown to be strongly associated with change of direction (COD) and acceleration performance (Xu et al. 2024). The countermovement rebound jump (CMRJ) combines the countermovement jump (CMJ) and drop jump (DJ) into a single assessment, reflecting sport-specific stretch-shortening cycle (SSC) actions (Lockie et al. 2014). The change of direction and acceleration test (CODAT) reflects multidirectional demands of team sports (Lockie et al. 2014). The aim of this study was to investigate the relationship between CMRJ

performance metrics and COD as assessed by the CODAT in college-based team sport athletes. **Method:** A cross-sectional correlational design was employed. Nineteen participants completed three trials of the CMRJ and CODAT following a standardised protocol. Reliability was assessed using intraclass correlation coefficients (ICC) and coefficients of variation (CV). Pearson's correlation was used to analyse the relationship between the CMRJ measures and CODAT performance, with significance set at $p \leq 0.05$. Spearman's correlation was used for RSImod as the data did not meet the assumption of normality. Results: Results showed a weak to negligible, non-significant, negative relationship between CODAT and the majority of CMRJ variables, except for jump height two (JH2) ($r = -0.420$), which showed the strongest association, although this remained non-significant ($p > 0.05$). In practical terms, these negative relationships suggest that higher jump heights are associated with faster CODAT performance, but the strength of these relationships is small to moderate and should be interpreted with caution given the lack of statistical significance. Majority of the metrics had ICC scores > 0.8 and a CV < 10%, displaying good to excellent reliability except for JH2 and TTTO. **Discussion:** These findings indicate that CMRJ-derived metrics demonstrated limited association with COD performance in this cohort. Differences between the present findings and previous research may be attributed to the use of alternative COD tests that emphasise different neuromuscular demands. However, future research should consider including additional familiarisation trials while also testing a larger and more diverse athletic population to further explore these relationships. **Conclusion**: No significant associations observed between metrics derived in the CMRJ and CODAT performance, but further research is required.

Relationship Between Force–Time Characteristics and Sprint Performance in Gaelic Football Players

Student Name: *Ella Maree Rice (TUD)*

Abstract No: *19*

Introduction: Gaelic football requires repeated explosive actions, including sprinting, jumping, and tackling (Boyle et al., 2023). Relative peak power during the hexagonal barbell jump squat (HBJS) has been associated with 10 m and 20 m sprint performance in elite rugby players (Turner et al., 2015). The HBJS may offer advantages by positioning the load closer to the body's centre of mass, supporting greater peak power outputs (Swinton et al., 2011). However, limited research has examined HBJS-derived force–time characteristics in Gaelic football. This study aimed to investigate the relationship between HBJS-derived force–time characteristics and sprint performance over 5 m, 10 m, and 20 m in sub-elite Gaelic football players. **Methods:** Twenty-nine sub-elite male Gaelic football players completed HBJS testing across six loading conditions: 0%, 10%, 20%, 30%, 40%, and 50% of estimated hexagonal barbell deadlift one-repetition maximum. Variables included peak force, relative peak force, peak power, relative peak power, peak braking force, braking rate of force development, jump momentum, and take-off velocity. Sprint performance was assessed over 5 m, 10 m, and 20 m. Pearson's correlation coefficients and linear regression analyses examined relationships between variables. **Results:** Several HBJS-derived variables demonstrated significant negative relationships with sprint time, indicating that greater force–time outputs were associated with faster sprint performance. The largest relationships were observed over 10 m and 20 m. Relative peak force at 20% 1RM showed the largest relationship with 10 m sprint time ($r = -0.708$; adjusted $R^2 = 0.483$), followed by take-off velocity at 20% 1RM ($r = -0.689$; adjusted $R^2 = 0.456$). For 20 m sprint performance, peak power at 0% 1RM demonstrated the strongest relationship ($r = -0.666$; adjusted $R^2 = 0.422$), followed by peak power at 20% 1RM ($r = -0.640$; adjusted $R^2 = 0.387$). **Discussion:** HBJS-derived force–time characteristics were related to sprint performance in sub-elite male Gaelic football players,

particularly over 10 m and 20 m, with 0–30% 1RM appearing most useful for profiling sprint-related characteristics. HBJS testing may therefore provide practitioners with useful information on force–time characteristics associated with sprint performance in sub-elite male Gaelic football players.

The Role of SPHE in Developing Emotional Intelligence Among Post-Primary Students: A Teacher's Perspective

Student Name: *Lucy Mc Mahon (MTU, Kerry)*
Abstract No: *20*
Introduction: Emotional Intelligence (EI) is associated with improved wellbeing, behaviour and academic outcomes among adolescents (Salovey and Mayer, 1990; O'Boyle et al., 2011). Adolescence represents a critical developmental stage for emotional growth due to ongoing cognitive, emotional and neurological changes (Insel and Cohen, 2025). Within the Irish education system, Social, Personal and Health Education (SPHE) is the primary subject designed to support students' social development (NCCA, 2022). However, existing research has largely focused on programme outcomes rather than how EI is developed in classroom practice. This study aimed to explore how SPHE contributes to the development of EI among post-primary students from a teacher's perspective. **Method:** Semi-structured, audio-recorded interviews were conducted with 7 post-primary SPHE teachers recruited through purposive sampling and professional networks. Participants had a minimum of two years of experience teaching SPHE within the Irish post-primary education system. A qualitative interpretive approach and reflexive thematic analysis were implemented. Interview data were transcribed, coded, and analysed using Braun and Clarke to identify emerging themes. **Results:** Teachers consistently described EI as a developing but fragile competency, with students often struggling to recognise and regulate emotions. The relational nature of EU development emerged strongly, with trust, psychological safety and a non-judgmental classroom environment viewed as essential for emotional engagement. Participants identified discussion-based, interactive and student-centred pedagogies as the most effective approaches for supporting EI development within SPHE. However, barriers including timetabling, subject marginalisation and lack of teacher preparedness can constrain consistent implementation, so participants also viewed whole-school wellbeing initiatives as superficial or tokenistic suggesting that meaningful EI development requires authentic and sustained relational engagement. **Discussion:** The findings demonstrate that while SPGE has the potential to support EI development, its effectiveness is shaped by relational, pedagogical and structural factors. Teachers perceived EU as developing through interaction, reflection and emotionally safe classroom environments rather than through curriculum content alone. Structural barriers and inconsistent support for SPHE may limit opportunities for sustained emotional development within schools. **Conclusion:** This study highlights the importance of relational pedagogy and supportive school cultures in facilitating EI developed through SPHE. Greater structural support, increased timetabling, and enhanced teacher training and resources may strengthen the capacity of SPEH to support adolescents' emotional development and wellbeing.

Morning vs Evening Training: Does Timing Influence Sleep and Recovery in Collegiate Athletes?

Student Name: *Robyn Magner (UCD)*
Abstract No: *21*
Introduction: Sleep is essential for athletic recovery and performance. Collegiate athletes typically obtain only 6–7 hours of sleep per night, below the recommended 7–9 hours. However, real-world evidence regarding the effects of morning versus evening training on sleep outcomes remains

limited. This study aimed to examine whether training performed in the morning (<12:00) versus evening (>18:00) influences objective sleep parameters in collegiate athletes. **Methods:** Sixty-five collegiate athletes (26 male, 39 female) wore MotionWatch 8 actigraphy devices and completed daily sleep and training diaries over a 7-day period. Objective sleep variables included total sleep time (TST), sleep efficiency (SE), wake after sleep onset (WASO), and sleep onset latency (SOL). Linear mixed models were used to compare sleep outcomes following morning and evening training sessions. Subjective sleep duration reported in diaries was also compared with actigraphy-derived measures. **Results**: No significant differences were observed in objective sleep parameters between morning and evening training sessions (all $p > 0.05$). A slight trend toward higher TST was observed following morning training. Athletes significantly overestimated sleep duration by approximately 50 minutes compared with actigraphy ($p = 0.029$). A moderate negative correlation was observed between SE and WASO. Mean TST values were below the commonly recommended 7–9 hours. **Discussion:** Contrary to the hypothesis, the time of day that athletes trained (morning vs evening) did not significantly affect sleep outcomes in collegiate athletes. External factors such as academic workload, lifestyle demands, and irregular schedules may exert a greater influence on sleep than training time. These findings suggest that flexible training scheduling may be appropriate and that greater emphasis should be placed on improving sleep opportunity and sleep awareness in collegiate athletes.

Inertial Measurement Unit use for balance testing – is this a valid testing method?

Student Name: *Finn Murphy (ATU, Galway)*

Abstract No: *22*

Introduction: The current methods of measuring physical literacy in youth are currently limited to mostly subjective analysis of exercise (Barnett et al., 2023). One of these methods includes the PLAY scale (Caldwell et al., 2020) which was the focus of this study, specifically the balance section. While the PLAY scale is a valid form of analysis, it can only be carried out by experienced practitioners, highlighting the need for an objective measure of performance. This study aimed to investigate if it was possible to use a Shimmer inertial measurement unit (IMU) during this test to obtain objective and accurate data. **Method:** A backwards balance walk along a 2 meter long line was completed one time by each of the 20 participants, with the IMU recording linear acceleration, angular velocity, and rotation during the walk. Participants were 21-22 years old and varied in physical activity level. The mediolateral linear acceleration data obtained from the IMU was compared to an average PLAY scale ranking from four independent observers. **Results:** A strong correlation ($r=0.732$, $p<0.001$) between the IMU data and the average PLAY scale ranking for each participant was observed. The 3 worst performers from the PLAY scale ranking also achieved the 3 worst scores in the IMU data, while the 3 best performers in the IMU data ranking also ranked in the top 6 of the PLAY scale ranking. **Discussion:** The data obtained showed potential feasibility of the mediolateral linear acceleration data obtained from the IMU as an objective measure of balance. Future research should aim to investigate the reliability with a larger sample size of participants. **Conclusion:** It is clear that the IMU can potentially be used as an objective measure of balance in a backwards balance walk.

How Occupational Therapists Experience and Foster Social Capital in Professional Practice

Student Name: *Isabella Chambers (TUD)*

Abstract No: *23*

Background: Occupational Therapy (OT) practice is fundamentally collaborative, relying on effective communication and strong professional relationships within multidisciplinary teams (MDT's). Despite its importance, Social Capital (SC) remains underexplored within OT, particularly in the Irish context. This study aimed to explore how OT's in Ireland experience and foster Social Capital in their professional practice. **Methods:** A qualitative, exploratory design was used. Semi-structured interviews were conducted with six OTs practising across a range of healthcare settings in Ireland, all with a minimum of five years post qualification experience. Data was analysed using Braun and Clarkes (2006) reflexive thematic analysis approach. **Results:** Four key themes were identified:

1. Professional Relationships as central to practice
2. Trust and Communication as foundations of Social Capital
3. Barriers and Facilitators to developing Social Capital
4. Impact of Social Capital on practice, wellbeing and retention

Findings demonstrated that Social Capital underpins daily OT practice, influencing collaboration, clinical decision-making, and professional identity. Factors such as trust, communication, leadership and workload all had an impact on the development of these relationships. Having supportive professional relationships was linked to greater wellbeing, confidence, and job satisfaction. **Conclusion:** Social capital plays a critical role in OT practice, influencing both individual and team functioning. Recognising and supporting the development of professional relationships can enhance practitioner wellbeing and more effective care delivery, particularly within the context of ongoing pressures in the Irish healthcare system.

Physical Literacy in Children: The Role of Community Sports Hubs

Student Name: *Kyle Lowry (TUS, Athlone)*

Abstract No: *24*

Introduction: Physical inactivity in children is a significant public health concern, with over 80% of young people globally failing to meet recommended activity levels. In Ireland, only 15% of primary school children meet physical activity guidelines, which show the need for effective interventions. Community Sports Hubs, which were mentioned in Ireland's National Sports Policy 2018–2027, aim to increase participation, but limited research has looked at their impact on outcomes on development such as motor competence. This study looked at the impact of a four-week ABC (Agility, Balance, and Coordination) programme on the ball skill performance of children aged four to nine years at the Strokestown Community Sports Hub. **Methods:** Eighteen children enrolled in the ABC programme were recruited by convenience sampling. Ball skill performance was assessed using the ball skills sub-scale of the Test of Gross Motor Development Third Edition (TGMD-3) at pre and post-intervention. Complete paired data was available for 10 participants. A paired samples t-test examined pre-post changes, and independent samples t-tests compared pre-test scores by age group (Junior: 4–6 years; Senior: 7–9 years) and gender. **Results:** Ball skill scores improved significantly from pre-test (M = 41.50, SD = 8.03) to post-test (M = 46.90, SD = 5.78), t (9) = −3.09, p = .013, d = 0.98. The Senior Group scored significantly higher than the Junior Group at pre-test (p = .012, d = 1.35). No statistically significant gender difference was found (p = .184), though a medium effect size (d = 0.70) suggested a potentially meaningful difference. **Discussion:** A short, community-based movement programme produced statistically significant and practically meaningful improvements in children's ball skill performance. The large effect size

could suggest the ABC programme is an effective model for developing motor competence in young children. Further research with larger samples and control group designs is recommended.

A Systematic Review: The Anthropometric and Physiological Characteristics of Male Academy Rugby Players in Ireland

Student Name: *Ryan Caverly (TUD)*
Abstract No: *25*
Introduction: Rugby is a physically demanding, intermittent sport that requires a broad range of physical attributes, including aerobic capacity, speed, agility and muscular strength (Pasin et al., 2017). With this in mind, progressing from academy to senior level can be a significant jump (Hamlin et al., 2021); therefore, the need to generate normative reference values based on anthropometric and physiological characteristics for male academy rugby union players has become increasingly significant. This study aimed to produce normative reference values for specific anthropometric and physiological characteristics in male academy rugby players in Ireland. **Methods:** This systematic review took place while following the PRISMA guidelines. Electronic databases such as Google Scholar, PubMed, SPORTDiscuss, MEDLINE and SCOPUS, were systematically searched for studies which included male academy rugby union players aged u16-u21. Studies were excluded if they used a female cohort, rugby league players, or any rugby union studies which did not include academy-level players **Results:** 17 studies produced anthropometric and physiological characteristics for male academy rugby players. Normative reference values were produced for age grades from u16-u21 for the likes of height, weight, body fat % and sum of skinfolds. For physiological characteristics, normative reference values were produced for qualities such as speed, agility, aerobic and anaerobic capacity, muscular strength, and muscular power. **Discussion:** These normative reference values can be used by strength and conditioning coaches and players themselves to elicit a clear progression strategy through all age grades of rugby union academies up until senior level. Further research should consider anthropometric and physiological differences within the different playing positions in rugby union. **Conclusion:** It is evident that this research was necessary in Ireland and can benefit both players and coaches alike in future situations to enable a progression

The Irish National IPED Survey 2026: image- and performance-enhancing drug use practices and health-seeking behaviours in Ireland

Student Name: *Riona Campion (DCU)*
Abstract No: *26*
Introduction: The prevalence of individuals engaging in image- and performance-enhancing drugs (IPEDs) use has become widespread, particularly in non-elite, recreational gym user populations. The scarcity of robust evidence to guide the implementation of harm reduction interventions, support services or policies for IPED users perpetuates the cycle of misuse and inadequate support for users. Despite the well-documented barriers to healthcare engagement amongst IPED users, no study to date has mapped IPED use at a national level in an Irish context. Therefore, the aim of the present study was to explore the demographics, health-seeking behaviours and current use-practices of IPED users in Ireland. **Methods:** A 56-question anonymous online survey was constructed, adapted from the 2016 UK National IPED Info Survey. The survey was disseminated via purposive snowball sampling to IPED users aged 16 years or older, who were engaging in regular training in the gym and living in Ireland. The survey explored demographic characteristics, IPED use-practices, motivations, side-effects, procurement and education channels and health-seeking behaviours. **Results:** 42 participants completed the Irish National IPED Survey 2026 questionnaire. Participants were predominantly male (76.2%) and white Irish (85%), with a

median age of 30 years. Participants used both oral and injectable IPEDs (78.5%), but most frequently injected (86.7%). Clenbuterol (75%) and testosterone enanthate (67.6%) were the most common oral and injectable substances, respectively. Dosages administered per week varied (range=1-2100mg, mean=610mg). Competitive bodybuilding was the primary motivation for use. Common side-effects included injection site pain (41.9%) and changes in sex drive (41.9%). Many participants did not seek treatment for symptoms (50%), despite accessing health services within the past year (56.7%). Most users did not disclose their use (57.6%), citing a perceived lack of knowledge amongst health professionals (42.1%). **Discussion:** As the first national survey of IPED use in Ireland, the current findings provide a foundational evidence base, from which safe-use policies for users and health professionals can be established. Reticence of users to disclose use or seek treatment, driven by perceived knowledge gaps amongst healthcare professionals, demonstrates the need for IPED-specific training in clinical settings.

The female athlete in a high-performance environment: A narrative approach.

Student Name: *Ian Sherwin (UL)*

Abstract No: *27*

Introduction: Despite increased visibility of women's sport, high-performance coaching continues to be shaped by traditional, male-dominated frameworks. Many high-performance systems are built around male bodies and expectations (Spain, 2024) creating added stress for female athletes, navigating environments not designed for them. These pressures contribute to higher rates of anxiety, depression and disordered eating amongst female athletes (Pascoe et al. 2022). Gendered power dynamics and communication styles may not align with athletes' needs and values, negatively affecting coach-athlete interactions (Norman & French, 2013). This study aims to investigate the lived experiences of female athletes in high-performance environments, focusing on their relationships with coaches and broader systems that shape their development. **Methods:** Six high-performance female athletes who currently work with either male or female coaches attended semi-structured interviews. Each athlete competes at elite level across Olympic sports including Athletics, Cycling and Soccer. Interviews were transcribed verbatim, resulting in a transcript of 460 pages. A thematic narrative approach guided the analysis. Following Braun and Clarke's (2006) six-step framework, the process involved: familiarizing the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. **Results:** Through interviews and thematic analysis, two dominant themes emerged: 'Support Networks' and 'Pressures within High-Performance environments.' Athletes described contrasting coaching experiences, highlighting both supportive and harmful coaching practices. The influence of coaches relative to their respective NGBs differed notably between individual and team-sports athletes. Additionally, the effect of selection vs. non-selection was an evident theme, shaping athlete motivation and well-being. **Discussion:** Female athletes described how trust, communication, and emotional support shaped their development within high-performance environments. Coaches influenced learning both formally and informally, often extending beyond physical performance. Athletes navigated male-centered norms, sometimes compromising wellbeing through overtraining, restrictive eating, and anxiety. While some coaching relationships enabled unsafe practices, others adopted holistic, person-centered support. Autonomy-supportive coaching, consistent with Self-Determination Theory, helped satisfy athletes' needs for autonomy, competence, and relatedness, promoting intrinsic motivation (Mageau & Vallerand, 2003). Overall, the study highlights the lived experiences of female athletes and emphasizes the need for gender-specific coaching and system design to better support their health and performance.

Effect of Fatigue on Leg Stiffness in Male and Female Soccer Players during a 30-Second Repeated Jump Test: A Cross-Sectional Study

Student Name: *Oisin Treacy (UCD)*

Abstract No: *28*

Introduction: Leg stiffness is a key component in fast stretch-shortening cycles and elastic, explosive movements. In previous research, stiffness has been linked with better sprint and jump performance, running economy, and force production. Stiffness is important to soccer players, as it facilitates movements such as sprinting and jumping, and is an energy-efficient movement strategy when fatigued. During repeated high-intensity movements, central and peripheral fatigue accumulate, and performance decrements follow. This study investigates the effect of fatigue on leg stiffness, and its associated performance metrics, as well as potential sex differences in the fatigue response. **Methods:** Force plate data and kinematic analysis were combined using CodaMotion to measure stiffness levels and performance throughout a 30-second repeated bilateral jump test in soccer players. Data analyses was conducted through Jamovi (Version 2.6, The Jamovi Project, 2024). **Results:** This study found that stiffness levels significantly decrease as fatigue increases ($t(26) = -4.59$, $p < .001$, Cohen's $d = -0.884$). Decreases in stiffness were strongly correlated with reduced performance in ground contact time, jump height, and moderately correlated with reduced reactive-strength index and peak force. No statistically significant sex differences in stiffness or the fatigue response were observed. **Discussion:** These findings highlight the sensitivity of leg stiffness to fatigue and its relevance for soccer players. Decreases in stiffness were likely due to the decreased capacity of the neuromuscular system to maintain stiffness, and increased metabolite accumulation in the muscle. The correlation between decreased stiffness and performance is consistent with past research, which demonstrated that as fatigue increases, participants will alter their jump strategies to maintain jump height, spending longer on the ground to increase impulse, with increased peak displacement to compensate for reduced stiffness. Significant sex differences were likely not found due to the small female sample size, and a Mann-Whitney U T-Test indicates a moderate difference in stiffness between the sexes (rank biserial correlation = -0.314).

The Effect of European Competition Participation on Injury Incidence Rates in English Premier League Clubs: A Four- Season Retrospective Analysis

Student Name: *Destiny Avenbuan (UCD)*

Abstract No: *29*

Background: Fixture congestion in professional football has long been a concern. Its impact has intensified in recent years due to clubs competing in multiple domestic and European competitions within compressed schedules. Teams involved in UEFA competitions face heavier match loads than domestic-only clubs, raising concerns about increased injury risk and potential impact on player welfare. **Objective:** This study aimed to examine the effects of scheduling demands on injury outcomes in the English Premier League across four seasons, focusing on the impact of fixture congestion linked to European competition participation. **Methods:** Following ethical approval, data were collected from FBref and Transfermarkt, covering injury records and fixture lists from the 2018/19, 2021/22, 2023/24, and 2024/25 EPL seasons. European + Domestic competing teams were identified, and fixture congestion was defined as having a duration of ≤ four days between matches. Injury incidence rate was calculated per match window: (injuries ÷ match exposure hours) × 1000. **Results:**(Mann-Whitney U=871270, p<.001) showed a statistically significant difference in IIR

between European + Domestic competing clubs and domestic-only clubs, with a small effect size (rank biserial correlation=0.171). However, a negative binomial regression model revealed European competition participation was not a significant independent predictor of IIR (Exp(B)=1.039, p=0.585). **Conclusion:** While European competition participation is associated with elevated IIR, this effect is partly explained by differences in squad resources rather than fixture congestion itself.

Supporting Female Athletes: Attitudes, Barriers and Facilitators from the Perspective of Parents and Male Coaches

Student Name: *Ciara Marry (DIT)*
Abstract No: *30*
Introduction: Adolescent girls experience higher dropout rates from sport compared with boys, particularly during puberty. Research shows that female specific health issues such as menstrual cycle, breast changes, and pelvic floor health may contribute to this dropout. 18% of female Gaelic football players are coached by a female, meaning male coaches play a central role in supporting adolescent female athletes. Additionally, coaches and parents play an important role in supporting girls to stay involved in sport. Therefore, their attitudes and perspectives towards supporting female athlete health and physiology are important to understand. This study aimed to explore how male coaches can be better supported in addressing female athlete health and physiology, while also examining parents' perspectives on the role of coaches in supporting their daughter. **Methods:** A qualitative descriptive design was used. Semi structured focus groups were conducted with LGFA male coaches and parents/guardians in County Louth. A total of 31 participants took part across 7 focus groups. Data was analysed using reflexive thematic analysis. **Results:** Three overarching themes were identified; (1) Education and Willingness to Learn, (2) The role of the Female Liaison Officer (FLO), and (3) A Biopsychosocial lens. Participants highlighted limited knowledge, communication barriers, and inconsistent support structures within Gaelic games. However, both parents and coaches expressed strong willingness to learn to improve education, communication and support for female athletes. **Discussion:** The findings highlight a significant gap between female athlete health research and its practical application within grassroots Gaelic games. Improved coach education, parent-coach communication and structured support systems may help create more inclusive sporting environment's and improve wellbeing, confidence and long-term participation among adolescent players.