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It is my great pleasure to welcome you to the PESS Research Annual Report for 2022. This is our third annual report and provides a comprehensive overview of the extensive research activity undertaken in PESS in 2022 as well as show casing some of our many notable achievements delivered through our research Themes and Centres in Food & Health, Physical Activity for Health, Sport and Human Performance and Sport Pedagogy. As with previous years the report chronicles our overall research performance; presents our research impact highlights; outlines current research news and events; profiles researcher across PESS and presents key research metrics including PESS publications and external research awards.

Some notable highlights for 2022 include:

- The publication 104 peer reviewed journal articles, 27 top 10%, 40 top 10–25% and 76% involving international authorship.
- Grant funding of €1,326,125 for grants greater than €50,000.
- Grant funding of €92,953 for grants less than €50,000.
- Official launch for the Sport and Human Performance Research Centre by double Olympic Champion and President of World Athletics, Lord Sebastian Coe.
- Publication of the new PESS research strategy (2022–27).

Building on our notable achievements highlighted in the 2021 report, our strong international reputation is reflected in PESS remaining in the top 50 (48th) Sports Science Departments in the Shanghai Global University Rankings.

Additionally, PESS has again been ranked in the top 100 (51-100) 'Sports Related Subjects' in the QS World University Rankings for 2023. Not only is PESS the only Department in UL ranked in the Top 100 but we are the No. 1 ranked Sports Related Department in Ireland. Additionally, closer examination of some of the scoring breakdown including Citations per Paper and H-index Citations are comparable or better than some of the top 10 Universities. These achievements reflect our strong research culture, the calibre of our outstanding staff and students as well as the quality and impact of our research activity and outputs.

We are very proud of our research achievements in PESS and this success does not come without a clear vision and plan, and I would therefore like to thank the PESS research committee members and research theme leads for driving the implementation of the new PESS research strategy (2022-27). Work has commenced on the implementation of our new research strategy, which aligns closely with the new UL Research strategy, 'Wisdom for Action'. I would like to take this opportunity of thanking all the PESS staff, postdoctoral researchers and postgraduate students for their continued commitment and contribution to the research mission of the Department. Finally, it would be remiss of me not to thank the Chair of the PESS Research Committee Professor Brian Carson and Rhoda Sohun who led the coordination and development of this Annual Report. We hope you enjoy reading it as much as we did putting it together!

Professor Giles Warrington PhD, FACSM
Head of Department,
Physical Education and Sport Sciences (PESS)



Chair's Welcome



Welcome to the latest edition of the Physical Education and Sport Sciences (PESS) annual research report focusing on our collective research achievements in 2022. Once again, I am delighted to bring you this report showcasing the outstanding research accomplishments of my departmental colleagues in what is an ever evolving departmental and research landscape.

Last year was a period of transition for the University with the development and launch of the Research Strategy 'Wisdom for Action'. In PESS, we also developed and launched our own <u>PESS Research Strategy 2022–2027</u>, aligned with 'Wisdom for Action', but bespoke to our own research needs and context. The overarching aim of our new strategy is to enhance the overall research experience in the department and to advance further the quality and impact of our research in line with our mission and vision statements. In this strategy we focused on five priorities which we hope will build on what has been achieved and documented in this report to enhance our research contributions over the next 5 years. The five priorities are as follows:

- 1 Enhance the research culture/experience;
- 2 Support our People;
- 3 Build Capacity Through people, partnerships, training and infrastructure;
- Oeliver high quality research with greater Impact (Academic, Societal, Economic, Cultural);
- 5 Commit to Open Science;

I am proud to report that PESS researchers have managed to once again build on our excellent research publication output. This is reflected by maintenance of overall output while increasing quality as measured by the top research deciles and quartiles. More than a quarter of our publications are in the top 10% of journals in our field with two of every three in the top quartile. PESS researchers have also secured significant increase in funding awards in 2022 which will augment research activity and build capacity for the coming years. The future is bright and reflects on the excellent work of my colleagues as well as the supports in place for our staff.

Throughout the report you will see the real quality and impact of the department's research. This is reflected in our continued ranking in the Top 50 schools in the latest Shanghai rankings. Our researchers have developed impact case studies to demonstrate their true real impact on societal and economic issues. It is also clear that our researchers are displaying leadership in their respective disciplines, as evidenced by the outreach and research events researchers hosted and attended by PESS documented throughout the report.

I would like to thank my colleagues on the research committee, especially the research theme leads for their contributions throughout the year. I would also like to give a special mention to Rhoda Sohun for her dedicated work in the development and curation of this report. Her contribution once again has been invaluable.

I look forward to what is to come in 2023, but for now I hope you will join me in reflecting on the PESS department's achievements in 2022.

Professor Brian Carson Chair of Research Committee

Physical Education and Sport Sciences (PESS)

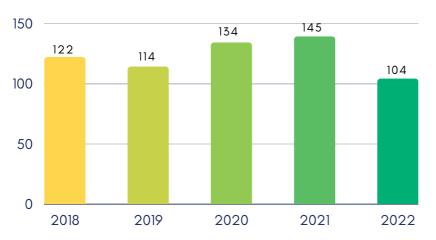


Research Performance

Publication Data

UL Research Performance Dashboard (Scopus)

PESS Number of Publications



PESS Number of Publications by Journal Quartile

Year	Top 10%	Top 10-25%	Q2	Q3	Q4	No IF
2018	33	42	25	5	3	14
2019	33	42	27	6	2	4
2020	43	34	33	8	3	13
2021	46	54	25	11	7	2
2022	27	40	23	5	1	8

PESS Number of Publications by Journal Quartile



Top 10% Performance (SJR) 2022

26%

FWCI 2021

1.57

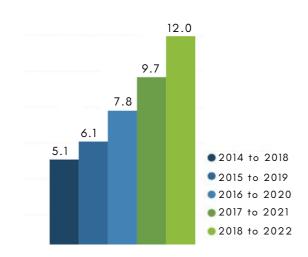
FWCI by 5 year window 17-21

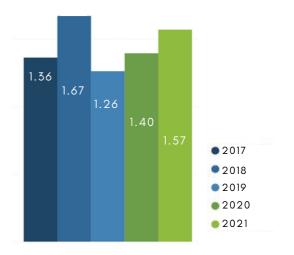
1.61



PESS 5 Year Rolling Citation Impact

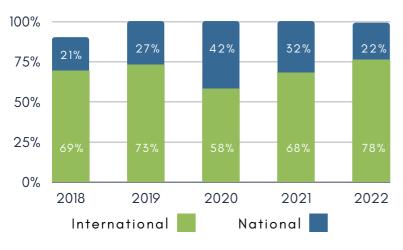
Field Weighted Citation Impact by Year



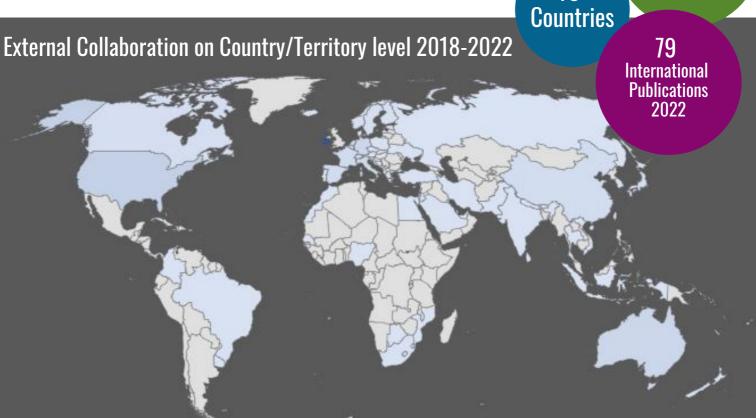


73

PESS % of Publications with International Co-Authors



418
International
Publications
2018-2022



PESS External Research Awards

UL Research Office

€1,419,078

External Research Funding AY 2021/22

AY2021-22 €1,419,078

AY2020-21 €805,890

AY2019-20 €2,485,376

AY2018-19 €659,703

AY2017-18 €1,246,474

See Appendix 1 for full detail of External Research Grants Awarded to PESS



Innovation Voucher



- EU Erasmus+
- EU H2020 MSCA Postdoctoral Fellowship





Government of Ireland
 Postgraduate Scholarships



- JPI A Healthy Diet for a Healthy Life
- Secondary Data Analysis Projects









Research Impact and News

Sport and Human Performance

Prof Ian Kenny

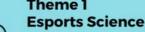


The Sport and Human Performance Research Centre (SHPRC) was recognised in 2021 as a priority research centre by the University of Limerick. On the 26th October 2022, the Centre was formally launched by Lord Sebastian Coe (President of World Athletics).

The core mission of the SHPRC is to advance interdisciplinary research in Sport and Human Performance. The SHPRC builds on the Department of Physical Education and Sport Sciences existing reputation in Sport and Human Performance and seeks to extend collaborative networks across UL, both nationally and internationally.

The research centre has two co-directors Prof. lan Kenny (ian.kennyeul.ie) and Prof. Giles Warrington (giles.warringtoneul.ie). Emeritus Professor and former co-director Drew Harrison remains involved in centre operations. The centre includes members from the Department of Physical Education and Sport Sciences (PESS), School of Allied Health, Mathematics and Statistics, and national Irish academic institutions (Technological University of the Shannon: Athlone, Dublin City University, University College Cork, South East Technological University), the Irish Institute of Sport and international external academic institutions (Centre for Human Performance Sciences, Stellenbosch, South Africa, University of Bablo de Olavide, Spain & University of New South Wales). The centre has 57 members in total. From 2017 centre inception research outputs include 586 publications (163 top of journals, 75 top 10% most cited publications); 51% international collaboration; 21 PhD graduates; research funding awards: €8.11 million.

The SHPRC delivers research in sport and other human endeavours where the emphasis is on achieving high level or optimal performance. The centre includes performance related research in sports such as athletics, rugby, golf, rowing, horseracing, swimming, coaching science, and esports, as well as many others where physical or psychological performance is undertaken with an emphasis on producing optimal performance.





Prof Mark Campbell & Dr Adam Toth



Theme 2 **Athletics Science**

Prof Drew Harrison



THEME 3 **Rugby Science**

Prof Ian Kenny & Dr Tom Comyns



THEME 4 Weight Category Sport Science

Lead Prof Giles Warrington



THEME 5 **Endurance Sports Science**

Lead Dr Frank Nugent

Currently there are five core themes as illustrated above. Sport and Human Performance research embraces the domains physiology, biomechanics, strength and conditioning, sports injuries and rehabilitation, skill acquisition and performance analysis.

in Numbers

109 publications (Source: Scopus)

56% open access.

26.9% top 10% journals

12.8% top 10% most cited worldwide 54% with international collaboration

Citations 2018-2022: 6,940,

Field-weighted citation impact: 1.41

Cites per publication: 11

Conferences

Presentations: 27 (13 national, 14 international); Keynotes: 4

Industry Reports: 3

Funding awards: €1,386,156 Events hosted: 27 (centre launch,

research seminars, podcasts, workshops)

Coach Communications Dr Ian Sherwin

As part of the MSc in Applied Sports Coaching (MSc ASC) the students are tasked to investigate areas that will enhance their coaching practice both in training and during competitive events/matches. Half-time (HT) is important component of a coach's performance strategy. Up to now, coaches have relied upon personal experiences, hunches, intuition, and trial and error, to establish effective in-competition practice. In their 2017 review of systematic observations in coaching research (1997-2016), Cope et al. highlighting that whilst many studies focus on coaches' communications, relatively few (6 of 26 studies) did so within the competition environment. Crucially, research has indicated that coaching behaviours can differ markedly between practice and competition. The predominant emphasis on training contexts excludes the spontaneous, creative element of coaches' work in-competition contexts encompass (Partington & Cushion 2011). This project aimed to explore and critically evaluate coach and player perceptions of half-times in elite rugby, and to identify effective HT strategies. The findings listed player recovery and the provision of a succinct plan for the 2nd half as priorities and strongly indicated participant preferences for tactical and technical information. Players, especially, noted negative perceptions of "emotional" content. The creation of a calm environment, facilitated by an emotionally controlled coach, was highlighted by all as a prerequisite to effective HTs.



Sean Surmon (Maties Sport, SU) presenting to UL MSc Applied Sport Coaching students in June 2022.

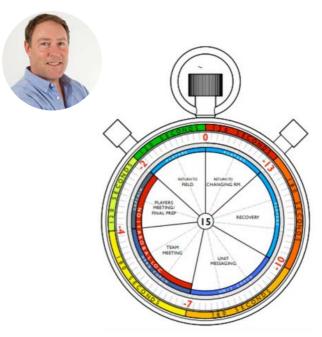


FIGURE: Smith, B. and Sherwin, I., 2022. Coach and athlete perceptions of half-times in high-performance rugby union. Sports Coaching Review, pp.1–23

The dissertation was accepted for publication in 2022 (Smith & Sherwin, 2022) and also features on the RTE Brainstorming platform. The findings are depicted in the graphic above which outlines the breakdown and roles of both athletes and coaches during elite rugby union games. Whilst they have generated some interest and are being implemented in professional rugby teams in Ireland and the UK and in hockey at European club level they are not applicable in all sporting contexts. For example, the half-time period in youth sport is only 5mins. Using the recommendations from the paper, the research team was expanded and now includes two final year students and a research assistant and involves a number of different studies on youth (16-19yrs) sport athlete perceptions of in-game communications and similarly with athletes over the age of 18 in non-elite sport. The project has broadened its focus using the PESS links with colleagues Stellenbosch University (SU), South Africa. The project secured Erasmus+ Funding to host a delegation from SU in June 2022 to teach on the MSc ASC and develop the coach communications project further with their Highperformance Athlete Programme. Long-term plans aim to secure further Erasmus+ funding for a research visit to SU in 2023.

The Policy Evaluation Network

Dr Liam Kelly PAfH Programme Manager



Unhealthy behaviours, including physical inactivity impact public health outcomes. Successful policy action is needed to address physical inactivity, unhealthy diets sedentary behaviour. The Policy Evaluation Network (PEN), which concluded in 2022, was funded to provide Europe with new knowledge and innovative tools to identify, evaluate and that benchmark policies impact these behaviours. PESS researchers, members of the Health Research Institute's Physical Activity for Health Research Centre, collaborated with researchers from across Europe to address this research challenge. In 2022, UL researchers led on the development of an innovative policy monitoring framework and a tool to support its implementation the PA-EPI (figure below). We have published five papers in top tier Q1 academic journals.

PEN research was featured in a <u>special issue</u> in the European Journal of Public Health with UL researchers contributing to an <u>editorial</u>, <u>a paper</u> defining key food and physical activity policy concepts, <u>a paper</u> outlining the development of the physical activity environment policy index (PA-EPI) tool and <u>a systematic review</u> of mass media campaigns influencing physical activity.

Further, UL PEN researchers contributed to <u>a</u> review of transport policies influencing physical activity and <u>a review</u> of sport policies influencing physical activity.

We have delivered symposia on our policy research at a NCD prevention conference in Brussels and at the annual meeting of the Health Enhancing Physical Activity (HEPA) Network in Nice, France. In addition, our work has been featured at meetings of the Determinants of Physical Activities in Settings (DE-PASS) network in Porto, Portugal; the European Association for the Study of Obesity (EASO) in Maastricht, Netherlands; meeting of the European Public Health Association (EUPHA) in Berlin, Germany and the meeting of the International Society of Behavioral Nutrition and Physical activity (ISBNPA) in Phoenix, Arizona. Domestically, PEN UL work has featured at the national Physical Education, Physical conference Activity and Youth Sport (PEPAYS) Ireland, as well as the Irish Physical Activity Research Collaboration Conference (I-PARC).

From a knowledge translation perspective, we have developed a videographic, factsheets and technical reports. We have hosted two workshops featuring invited speakers from Italy, Norway, Poland, and the Netherlands. Through these activities we have been able to present the evidence on physical activity policy and its impact in Ireland to public administrators and stakeholders from across diverse sectors of Irish society.

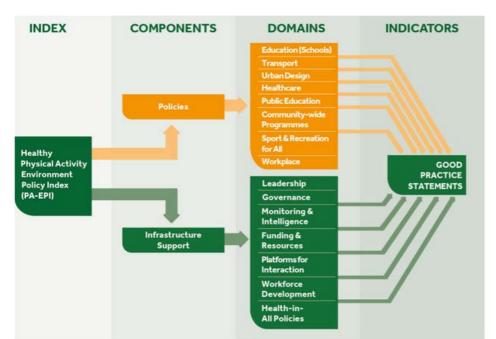


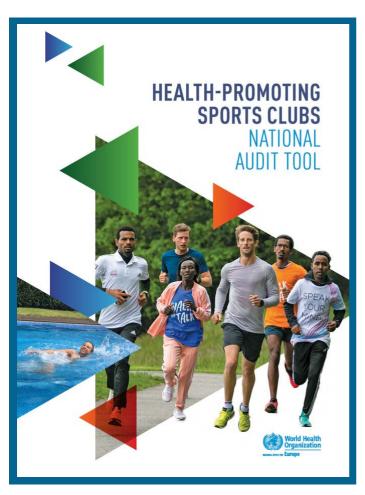


FIGURE: The Physical Activity Environment Policy Index (PA-EPI) Framework

Health Promoting Sports Clubs National Audit Tool

Aurélie Van Hoye, Marie Curie Research Fellow, UL





Sports clubs are nowadays recognized for their potential to promote and organize physical activity, an important determinant of health. Furthermore they can also use the informal education potential of sport to empower sports participants and foster their social, mental and physical health, as well as community health and social capital.

To endorse this challenge, the Sports Clubs for Health working group of the Health Enhancing Physical Activity Network has been collaborating with the World Health Organisation to design the health promoting sports clubs national audit tool, to help countries of the WHO European Region. Fourteen researchers from seven countries have contributed to design the tool.

The document provides an introduction and users' guide for the audit tool and the tool itself. The document also includes information on application of the "settings-based approach" to sports clubs, the health-promoting sports club approach and development and use of this tool.

The assessment will provide a comprehensive overview of national health promotion policies and strategies related to sports clubs in countries, which may indicate gaps in national health promotion and sport strategies and indicate areas to be developed.

Completion of the tool may foster collaboration among government departments and organizations interested in a settings-based approach to health promotion. It can provide a catalyst for better communication, joint strategic planning and actions and collaboration among sectors for national health promotion policies in sports clubs.

The tool can be found on the World Health Organisation Website : <u>Health Promoting Sports Clubs National Audit Tool</u>



Results of the Irish HPSC-NAT data collection





Advocating for quality physical education in Ireland: A sustained contribution to curriculum design, development, and enactment in Ireland

Summary of the Impact: Research by the University of Limerick's Sport Pedagogy research group in the Department of Physical Education and Sport Sciences has impacted physical education (PE) pedagogy and policy. Specifically, their research informed the development of second-level curricula in Ireland, including the recently established and examinable PE specification and Senior Cycle PE framework. The Sport Pedagogy's support model for PE teachers also led to several communities of practice, develop teaching resources implementing new curricula across second level. Through collaboration with teaching professionals and relevant stakeholders in Ireland, the research group developed a best practice model that informs both policy and its practical implementation.

Benficiaries: Policy-makers, Department of Education, physical education (PE) teachers, pre service teachers, second-level students, teacher educators, national PE associations.

Research linked to UN Sustainable Development Goals

Goal 4 - Quality Education
Goal 3 - Good Health and Wellbeing

Research grants: The Sport Pedagogy research group have been successful in funding securing from several Irish such educational institutions the National Council for Curriculum and Assessment, the Teaching Council, the Department of Health, and recently from the Government of Ireland and their Shared Island initiative. They have been also successful in securing European funding, being the most recent a project funded with €1.5M from the first Erasmus+ Teacher Academies Call (only twelve projects in Europe were successful) where they explore together with other partners how to improve the educational quality in physical education and physical education teacher through education an innovative conceptualisation of teaching and learning processes.

Staff conducting the research: Prof Ann MacPhail, Dr Antonio Calderón, Prof Elaine Murtagh, Dr Daniel Tindall, Dr Brendan O'Keeffe, Brigitte Moody, Ursula Freyne, Prof Mary O'Sullivan (Emerita), Dr Deborah Tannehill (Emerita), Dr Missy Parker (Emerita).

Download Impact Case Study





The Irish Rugby Football Union and the University of Limerick have released the fourth year of findings from the Irish Rugby Injury Surveillance (IRIS) research project, which looks at injury incidence in the Men's and Women's All-Ireland League during the 2021/22 season, following the curtailed 2020 Covid-19 period. IRIS also produced a focused two-year analysis of Schoolboy Senior Cup surveillance for 2018–2020.

IRIS research records the incidence, type, nature and severity of both match and training injuries occurring across the amateur game in Ireland. By monitoring this information the IRFU, with an understanding of injury trends, has developed 'ENGAGE'; a player robustness and injury prevention programme in order to minimise injury risk and enhance player performance and welfare.

- All-Ireland League amateur club rugby report
- Schools Senior Cup rugby report

The club data were compiled across 430 matches (versus 388 for 2019/20) from 21 All-Ireland League and Women's All-Ireland League clubs. In the schools game, data from 220 matches at Senior Cup level were recorded. A total of 709 male, 129 female players were registered with the IRIS project for the 2021/22 season, and 339 schoolboy players for the 2018–2020 seasons.

Male Club Match Injury Occurrence:

7.6/1,000 player hours: concussion 5.3/1,000 player hours: ankle ligament sprain

4.6/1,000 player hours: hamstring strain

Female Club Match Injury Occurrence:

3.6/1,000 player hours: concussion 4.8/1,000 player hours: ankle sprains 2.9/1,000 player hours: finger sprains

School Senior Cup Match Injury Occurrence:

7.5/1,000 player hours: concussion 7.0/1,000 player hours: ankle sprain 5.2/1,000 player hours: ACJ sprain

Dr. Rod McLoughlin, the IRFU's Medical Director, said:

"The IRFU is dedicated to enhancing player welfare and improving performance across the game, and results from the IRIS project have led to the development of a nationwide rugby readiness and robustness programme. The IRFU ENGAGE programme, which was launched in September 2021, further helps players prepare for the demands of the game and continue performing to their best."







Prof Ian Kenny

Dr Tom Comyns

Sprinting on empty: fasted training for better adaptation?

Prof. Brian Carson

Why train fasted?

Athletes for various reasons have practised training in the fasted state for centuries. Most early adopters likely pursued fasted training as they trained early in the morning and wanted to avoid gastrointestinal discomfort associated with having breakfast just beforehand. More recently, fasted training became an area of interest for coaches, athletes and researchers alike with enhanced adaptation to training and ultimately improved performance being the goal.

Training in fasted conditions alters the fuel sources we use during exercise, with a shift from burning carbohydrate towards fat. As a by-product, endurance training while fasted has been proven to induce favourable skeletal muscle metabolic adaptations compared to carbohydrate feeding, manifesting in improved exercise performance over time. It is hypothesised that by burning more fat during exercise we are training these metabolic systems in the body, and ultimately that helps us enhance our overall energy supply lines and spare our carbohydrate stores for when we need them during performance.

What about high intensity or sprint interval training?

In a <u>recent study</u> led by Prof Brian Carson we investigated if there was a role in metabolic and performance adaptations to Sprint Interval training (SIT) in the fasted state. We found that fasted SIT resulted in some additional beneficial adaptations compared to pre-exercise carbohydrate feeding. These adaptations were in the expression of genes associated with the switch between fat and carbohydrate metabolism and genes associated with NAD+ metabolism which is an important molecule involved in the conversion of nutrients to energy in the muscle. Despite these metabolic adaptations we did not observe similar differences in either sprint or endurance performance. However, this intervention was over a short period including just 9 sessions of SIT over 3 weeks. We think we would need to extend this to observe differences in athlete performance based on the metabolic adaptations we did observe and is discussed in more detail in a recent interview you can see here.

Take home message

Fasted training can be strategically incorporated into your overall programme to enhance metabolic adaptations when compared with pre-exercise carbohydrate feeding. There is no evidence of any downside or negative impact of training in the fasted state for either adaptation or performance. Fasted training has been shown to improve endurance performance, but as yet, we do not have any clear evidence that fasted sprint interval training impacts performance.



Physical Activity Guidelines for Anxiety and Depression

Optimal Physical Activity Dose and Biopsychosocial Profiles Predictive of Benefit Among Older Adults With and Without Non-Communicable Disease



Dr Matthew Herring (Principal Investigator)

This project, which begun in April 2022, uses 10 years of data from The Irish Longitudinal Study on Ageing (TILDA) to (i) identify optimal Moderate to Vigorous Physical Activity (MVPA) dose, defined as the minimal dose threshold associated with benefit, for depressive symptoms and Major Depressive Disorder and worry symptoms Generalized Anxiety Disorder among older adults; and (ii) characterize biological, psychological, and social, biopsychosocial, profiles that most strongly predict meeting optimal MVPA dose and positive, negative, and null associations with mental health outcomes across time among older adults.

To date, among 4,016 older adults at each included timepoints across ten-year period, a lower dose than recommended by WHO guidelines (i.e., ≥600 physical activity MET.min.week-1) of 400 to <600 MET.min.week-1 (equivalent to as little as 100 min.week-1, or 20min.day-1 for five days each week) was associated with a 16% lower rate of depressive symptoms and 43% lower odds of Major Depression compared to inactivity. A dose-response association was observed such that 7%, 16%, and 23% lower odds of depressive symptoms were found among those meeting recommendations, exceeding recommendations, and among highest doses, respectively (Laird et al., 2023, JAMA Network Open).

Notably, meeting WHO recommended levels of activity were associated with 39% lower odds of Major Depression among older adults with Cardiovascular Disease (Laird et al., Revise and Resubmit, Age & Ageing) and 28% lower odds of Major Depression among older adults with Type 2 Diabetes (Laird et al., 2023, Psychiatry Research), with dose-

associations revealed among higher doses. Similarly, older adults expending 1 to <200 MET.min.week-1 showed 47% lower odds of Generalized Anxiety Disorder compared to inactivity, with dose-response reductions in odds of 17%, 22%, and 31% among those below, meeting, and exceeding WHO recommendations, respectively (In Review, JAMA Network Open).

Ongoing analyses are identifying the factors that comprise biopsychosocial profiles most meeting/not strongly associated with meeting optimal doses for mental health identified in our work to date, along with negative, or null associations positive, between those doses and our mental health outcomes over time. Then, using the most effective/appropriate physical messaging, our work will translate these findings into enhanced physical activity quidelines for mental health, decision models comprised of factors to be modified to maintain and improve mental health, and the dissemination of these findings healthcare and exercise professionals, and communication plans developed with older adults and community stakeholders for sharing information on optimal physical activity prescription to achieve better mental health.

Funder: Health Research Board (Secondary Data Analysis Project) SDAP-2021-004

Research Team: Dr. Eamon J. Laird, Post-Doctoral Researcher; Professor Rose Anne Kenny, TILDA, Trinity College Dublin, Data Controller Co-Applicant; Ms. Deirdre Lang, Health Service Executive, Older Persons Services, 'Get Up, Get Dressed, Get Moving', Knowledge User Co-Applicant; Professor Catherine Woods, Professor Cathal Walsh, Professor Ciaran MacDonncha, Co-Applicants

PESS PhD Graduations 2022

Dr Karl Flemming

Thesis: The Effects of Pilates on Symptoms of Anxiety, Depression, and Fatigue among

People with Multiple Sclerosis

Supervisors: Dr Matthew Herring, Prof Susan

Coote & Dr Daniel Tindall

Dr Andre Moura

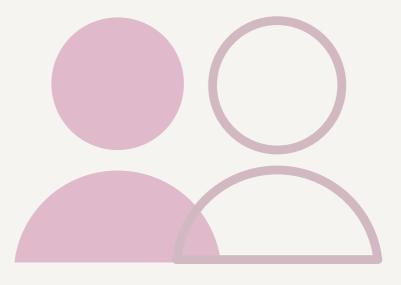
Thesis: From assessment for ranking toward assessment for learning: An action research study in pre-service physical education teachers during a year-long school placement

Supervisors: Prof Ann MacPhail (UL), Prof Paula Batista and Prof Amândio Graça (University of Porto)

PESS Internships 2022

	PESS Student	Internship Title	Supervisors	
1.	Maeve McInerney	Investigating the association between habitual dietary intake and sarcopenia in Irish community-dwelling older adults	Dr Catherine Norton	
2.	Emily Mulhall	What is the impact of different levels of regular Physical Education (PE), Physical Activity (PA) and Sport Provision in second level schools on the health, wellbeing and physical activity behaviour of Irish adolescents?	Padraic Rocliffe, Prof Ciarán Mac Donncha, Dr Brendan O'Keeffe	
3.	Aine Trait	Investigating the Impact of Plant-Based Protein and Marine-Based Multi-Mineral Supplementation on Adult Bone Health	Dr Sile Griffin, Prof Phil Jakeman	
4.	Anna McCurdy	tDCS to accelerate performance improvements in surgical training	Prof Mark Campbell	
5.	James Kellett	Investigating the prevalence of sarcopenia in Irish community-dwelling older adults	Prof Brian Carson	
6.	Niamh O' Loughlin	Resistance Exercise for Adolescents in schools	Dr Brendan O'Keeffe	
7.	Anthony O' Leary Learning to be a teacher in fully online environments: Exploring the impact on content knowledge, pedagogical content knowledge and the quality of teaching.		Dr Antonio Calderon	
8.	Eric Finn	Resistance Training in School – an exploration of teacher perspectives and practices	Prof Elaine Murtagh, Dr Brendan O'Keeffe	
9.	Criostoir McCaw	Tracking the progression of development squad hurlers through to senior level	Dr Phil Kearney	

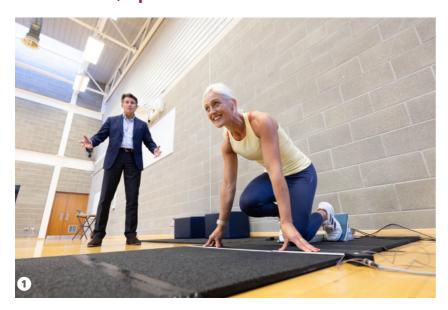
Research Events



Official Launch of the Sport and Human Performance Research Centre (SHPRC)



Professor Giles Warrington Co-Director, Sport and Human Performance Research Centre



As part of his visit Lord Coe undertook a tour of the research facilities in the PESS Building to observe a number of demonstrations of some the extensive research activity of the SHPRC's themes including a horse racing simulator, esports research project, the Irish Rugby Injury Surveillance (IRIS) research project and the FAAST Sprint Start research project, which he described as "world class". In the evening, Lord Coe gave the lecture in an interview style format as well as formally opening the SHPRC. The event was highly successful with over 360 attendees registered and generating considerable TV and print media coverage.



The launch of the SHPRC as a UL priority research centre took place Wednesday 26th October 2022. The quest of honour was Lord Sebastian Coe, double Olympic Champion, politician, Chairman of the London 2012 Olympics and Paralympic Games and President of World Athletics, who visited UL and PESS to officially launch the SHPRC and give the annual Professor Pat Duffy lecture. During the event, Lord Coe met members of the centres key research themes including Science, Rugby Sports Science, Athletics Science, Endurance Science and Weight Category Sports Science.





Photographed at the launch day: 1. Lord Sebastian Coe and athlete 100mHurele Olympian Sarah Lavin; 2. Lord Sebastian Coe and UL President, Professor Kirsten Mey 3. Lord Sebastian Coe observing a sports performance demonstration relating to Weight Category Sport Science 4. Lord Sebastian Coe and Irish international athletes Roisin Harrison, Thomas Barr and Sarah Lavin

Reflections on the PEPAYS Ireland Forum, June 2022 Dr Brendan O'Keeffe

The Physical Education Physical Activity and Youth Sport (PEPAYS) Ireland Forum took place in the Department of Physical Education and Sport Sciences at UL on June 11th, 2022.

The keynote address, delivered by Dr Karen Weekes, was for many the highlight of the Forum. Attendees were gripped by Karen's presentation, recounting the highs and lows of becoming the first Irish woman to row solo across the Atlantic, over 3000 miles after 80 days at sea. We encourage you to check out her journey at https://shecando2021.org/.

Following the keynote, two thought-provoking key thematic presentations on the themes of 'Social justice' (Dr Jennifer Walton-Fisette and Carla Luguetti) and 'Physical Activity Policy' (Prof Catherine Woods and Kevin Volf) were delivered. The research through practice workshops represented a new departure for the Forum and were very well received. Grace Cardiff, Dr Richard Bowles, Dr Maura Coulter and Dr Tony Sweeney provided a comprehensive overview on meaningful engagement in self-study. Dr Phil Kearney delivered a collaborative workshop focusing on identifying research priorities for youth Meanwhile, Prof Ann MacPhail sport in Ireland. hosted a space for colleagues to walk, talk and reconnect.

In total, 28 oral research presentations were delivered and 12 research posters showcased. The diverse range of research across physical education, physical activity and (youth) sport left attendees with a difficult decision on which sessions to attend. The quality of both the oral research presentations and research posters, particularly among undergraduate and postgraduate attendees, was noted by several attendees.

The final part of the day was a stimulating three-way key stakeholder panel discussion between John Fulham (Paralympics Ireland), Declan O'Leary (Sport Ireland) and Prof Catherine Woods (Chair of Physical Activity for Health, UL). The day concluded with PEPAYS Ireland Research Centre Director, Prof Ann MacPhail, presenting prizes for the overall best oral research presentation to Frank Devereux (DCU) and research poster to Rhoda Sohun (UL).





(Above) Dr Karen Weekes presenting her keynote on the day, and (below) Prof Ann MacPhail and attendees on a Walk and Talk' which offered an opportunity to reconnect with colleagues





Researchers Spotlight



Dr Adam Toth

Lecturer Sport and Exercise (Biomechanics)

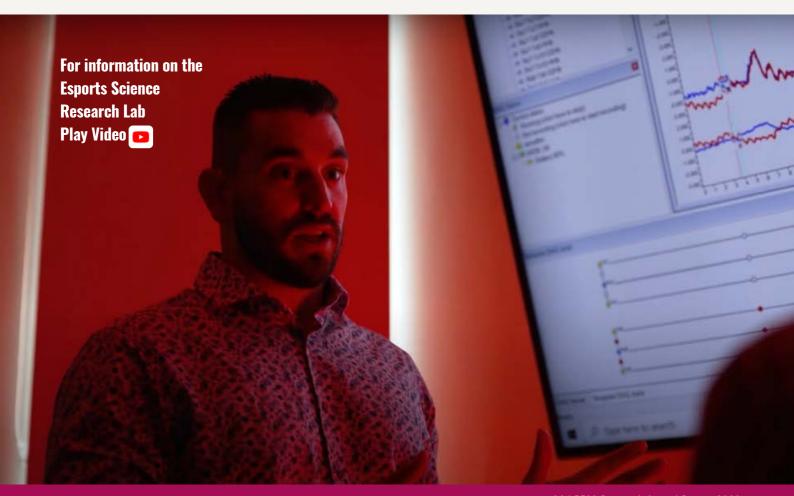


Dr. Adam Toth is a lecturer in PESS with over a decade of experience conducting research in the areas of sensory-motor neuroscience biomechanics. Adam's predominant interests revolve around sensory-motor learning in both sport and healthy aging contexts, with specialist knowledge of the visual and vestibular systems, and expertise with neurostimulation techniques such as galvanic vestibular stimulation and transcranial electric stimulation. Since completing his PhD at the University of Guelph, Canada, Adam has co-founded Ireland and Europe's first Esports Science Research Lab in Lero at UL, is a Science Foundation Ireland funded investigator, and has accumulated over 1.8M in funding to date across projects in collaboration with both academic and industry partners.

The three predominant areas of focus currently for Adam's research are golf, esports and surgical performance, where he uses a myriad of techniques and technologies to examine and better understand the neuro-mechanical indicators of health and performance.

Adam's golf research to date has spanned from investigating the role of motor simulation techniques on putting performance to the physical indicators of clubhead speed in elite golfers. In the esports science research lab, Adam oversees and supervises a multidisciplinary team of research assistants, MSc students, PhD students and Post Doctoral researchers that conduct a range of research projects investigating the cognitive performance of action video gamers, the role that gaming equipment has on gaming performance, and the kinematic differences between gamers across various esports, to name a few. Finally, Adam has also directed his interests towards simulated medical surgery with a specific focus on identifying the neural correlates of surgical expertise, and the potential for motor simulation strategies and neurostimulation to accelerate the motor learning of surgical skills.

For more on Adam's research, see his <u>Google</u> <u>Scholar</u> profile



Dr Jenna R. Lorusso

Postdoctoral Researcher

Marie Skłodowska Post Doctroral Fellowship

Dr. Jenna R. Lorusso is a Marie Skłodowska-Curie Actions postdoctoral fellow supervised by Prof Ann MacPhail in the Department of Physical Education and Sport Sciences at (UL) and adjunct research professor in the Faculty of Education at Western University (Canada). Her research is funded by the European Commission and is focused on co-creating a preparatory policy engagement programme for physical education international physical education stakeholders from various professional roles (i.e., teachers, teacher educators, policymakers, professional development providers, professional association directors, etc.).

Jenna completed her doctoral degree in critical policy, equity, and leadership studies in education at Western University (Canada). Prior to her current position, Jenna was a Social Sciences and Humanities Research Council of Canada postdoctoral fellow in the Department of Physical Education and Sport Sciences at UL, with a secondary affiliation in the Department of Educational Policy and Leadership at the University at Albany (USA). In that role she worked with Irish physical education stakeholders to act on their policy problems of practice through policy theory.

Jenna also works closely with physical schools, education practitioners provincial/state or national departments of education, and professional associations in various countries (e.a., Australia, Canada, England, Ireland, Scotland, Wales). Jenna has served as Editor-in-Chief of the Physical and Health Education Journal and Associate Editor of the International Journal of Kinesiology in Higher Education. Jenna's work has been recognized by academic and civil society organizations, including International Association for Physical Education in Higher Education's Young Scholar award in 2022.

More information on Jenna's current work on <u>CORDIS</u> and her research program on <u>Google</u> Scholar

Aidan Buffey

Doctoral Researcher Exercise Physiology



Aidan is a PhD Candidate in the Department of Physical Education and Sport Sciences, UL. He was awarded a Health Research Institute (HRI) PhD Studentship in 2019 and is supervised by Profs Alan Donnelly and Brian Carson (UL). Aidan's PhD project is titled "Design and evaluation of an intervention to reduce sedentary behaviour and improve health in older adults" with research interests in the device-based measurement of physical activity and sedentary behaviour, health promotion and participatory research.

In 2022, as part of Aidan's PhD studies, he published a systematic review and metaanalysis, in Sports Medicine. The systematic review examined the acute effects of interrupting prolonged sitting with short frequent bouts of standing and light-intensity walking on biomarkers of cardiometabolic health in adults. This review found a significant improvement in postprandial glucose for both standing and light-intensity walking breaks but that light-intensity walking breaks compared to prolonged sitting and standing breaks were shown to be a superior intervention in both the attenuation of postprandial glucose and insulin. The findings from this review were disseminated widely, with Aidan interviewing with the New York Times, The London Times, RTE and several other media outlets across America, the UK and Australia. Altmetric score: 1588, ranking it 291st out of 522,499 tracked articles of a similar age.

Aidan has several roles and responsibilities alongside his PhD such as Communications and Membership Committee member for the International Society for the Measurement of Physical Behaviour as Newsletter Editor; Deputy Chair of the Health Research Institute Postgraduate and Postdoctoral Hub Committee and Committee Co-Chair of the EMerge PhD Network, UL.

More on Aidan's profile on his <u>ResearchGate</u> profile

Prof Elaine Murtagh

Professor in Physical Education



I joined the PESS Department in March 2020 and am currently Course Director for the BSc Physical Education programme. I am a member of the Physical Activity for Health (PAfH)Research Centre and the Sport Pedagogy Research Group. My research interests span physical education, physical activity and health. I am currently a member of the Steering Committee for HEPA Europe (European Network for the Promotion of Health Enhancing Physical Activity) and Co-Chair of their working group on children and adolescents. A lot of my research involves international collaboration, and I am fortunate to work with leading scholars worldwide. Below I highlight current projects involving colleagues in Europe, Palestine and Australia.

Reflective of my role as a teacher educator, with colleagues in UL and Ulster University we are developing and examining a teaching approach to fore fronting social justice across two teacher education programmes from two jurisdictions (Ireland and NI) that encourages teacher educators and pre-service teachers to learn with and from each other. Funded by the Shared Island initiative, this project explores teacher educators' and pre-service teachers' experiences of developing a pedagogy for social justice.

On a European level, I am part of the UL research team for the 2PASS4Health project (Promoting physical activity in secondary schools for health). Funded by Erasmus+, the <u>2PASS4Health</u> project is led by University of Pau and Pays de l'Adour and involves academic colleagues from Spain (University of Zaragoza), Portugal (University of Porto), Belgium (University of Ghent) and France (City of Tarbes).

Further afield, I am co-PI for the IRC-funded project "Learning in Motion: embedding gender-responsive, play-based pedagogies in teacher education in Palestine". In partnership with Birzeit University, this project promotes innovative pedagogies in higher education and addresses the sustainable development goals on quality education (SDG4), gender equality (SDG5), and good health and well-being (SDG3).

Finally, with collaborators from the University of Newcastle, Australia, and Ulster University, we are progressing a coach development intervention for gymnastics. Originally developed for team sports, the MASTER programme aims to educate coaches to design and implement high quality coaching sessions. We are currently exploring how coaches in Australia, Ireland and China operationalise evidence-based positive coaching practices.

More on Elaine's research on her <u>ResearchGate</u> profile

PESS blog: https://pess.blog/tag/elaine-murtagh/



Prof Elaine Murtagh pictured with Dr Ahmad Aljanazrah, Dr Nibal Khalil and Ghadeer Hamed from Birzeit University

Appendix 1

External Research Awards 2022



External Research Awards

Source: UL Research Office

External Research Awards for PESS based on Cost Centres opened at December 2021

	AY2017-18	AY2018-19	AY2019-20	AY2020-21	AY2021-22	TOTAL
ENTERPRISE IRELAND	19,721	12,804	233,067	243,450	5,000	747,023
ENVIRONMENTAL PROTECTION AGENCY		2,885				5,885
EUROPEAN UNION	109,523	63,590	1,699,213	417,078	252,374	2,662,946
HEALTH RESEARCH BOARD	237,694	282,677	6,100		483,976	1,010,447
INDUSTRY			164,543			386,956
IRISH RESEARCH COUNCIL	120,000	240,000	324,888		189,000	968,538
DEPT OF AGRICULTURE, FOOD & THE MARINE				140,483		140,483
OTHER	759,536	57,747	57,564	4,879	488,728	1,369,462
GRAND TOTAL	1,246,474	659,703	2,485,376	805,890	1,419,078	7,291,740

External Research Awards for PESS AY2021-22 based on Cost Centres opened at December 2022

FUNDING BODY	PROGRAMME	PROJECT LEADER	AWARD
HEALTH RESEARCH BOARD	HRB - JPI A HEALTHY DIET FOR A HEALTHY LIFE	PROF ALAN DONNELLY	267,058
HEALTH RESEARCH BOARD	HRB - SECONDARY DATA ANALYSIS PROJECTS	DR MATHEW HERRING	216,918
EUROPEAN UNION	EU - HORIZON - MSCA POSTDOCTORAL FELLOWSHIPS (EUROPE)	PROF ANN MACPHAIL	215,534
EUROPEAN UNION	EU-ERASMUS+	DR TOM COMYNS	36,840
ENTERPRISE IRELAND	INNOVATION VOUCHER	PROF DREW HARRISON	5,000
IRISH RESEARCH COUNCIL	IRC - GOVERNMENT OF IRELAND POSTGRADUATE SCHOLARSHIP X 2	PROF CATHERINE WOODS, DR PHIL KEARNEY	162,000
IRISH RESEARCH COUNCIL	IRC - GOVERNMENT OF IRELAND POSTGRADUATE SCHOLARSHIP	PROF CIARAN MAC DONNCHA	27,000
OTHER	IRISH RUGBY FOOTBALL UNION INJURY SURVEILLANCE (IRIS) PHASE 2	PROF IAN KENNY	319,573
OTHER	CSPPA 2022	PROF CATHERINE WOODS	145,042
OTHER	SCOTENS	PROF ANN MACPHAIL	24,112

Total: 1,419,078





- Amotz, B.R., Green, G., Joseph, G., Levi, S., Manor, N., Ng, K., Barak, S., Hutzler, Y. and Tesler, R., 2022. Remote teaching, self-resilience, stress, professional efficacy, and subjective health among Israeli PE teachers during the COVID-19 pandemic. Education Sciences, 12(6), p.405. DOI: 10.3590/educsci12060405 Quartile 2
- Barry, L., Lyons, M., McCreesh, K., Powell, C. and Comyns, T., 2022. International survey of training load monitoring practices in competitive swimming: How, what and why not?. Physical Therapy in Sport, 53, pp.51-59. DOI: 10.1016/j.ptsp.2021.11.005 Quartile 1 (top 10-25%)
- Barry, L., Lyons, M., McCreesh, K., Powell, C. and Comyns, T., 2022. International survey of injury surveillance practices in competitive swimming. Physical therapy in sport, 57, pp.1-10. DOI: 10.1016/j.ptsp.2022.07.001 Quartile 1 (top 10 - 25%)
- Belton, S., Connolly, S., Peers, C., Goss, H., Murphy, M., Murtagh, E., Kavanagh, J., Corr, M., Ferguson, K. and O'Brien, W., 2022. Are all domains created equal? An exploration of stakeholder views on the concept of physical literacy. BMC Public Health, 22(1), pp.1-15. DOI: 10.1186/s12889-022-12931-5 Quartile 1 (top 10 - 25%)
- Belton, S., O'Brien, W., Murtagh, E., Costa, J., Issartel, J., McGann, J. and Manninen, M., 2022. A new curriculum model for second-level physical education: Y-PATH PE4Me. Curriculum Studies in Health and Physical Education, 13(2), pp.101-122. DOI: 10.1080/25742981.2021.2018941 Quartile 2
- Bourke, A., Niranjan, V., O'Connor, R. and Woods, C., 2022. Barriers to and motives for engagement in an exercise-based cardiac rehabilitation programme in Ireland: a qualitative study. BMC Primary Care, 23(1), pp.1-11. DOI: 10.1186/s12875-022-01637-7
- Buffey, A.J., Herring, M.P., Langley, C.K., Donnelly, A.E. and Carson, B.P., 2022. The acute effects of interrupting prolonged sitting time in adults with standing and light-intensity walking on biomarkers of cardiometabolic health in adults: a systematic review and metaanalysis. Sports Medicine, pp.1–23. DOI: 10.1007/s40279-022-01649-4
 Quartile 1 (Top 10%)
- Burgueño, R., Calderón, A., Sinelnikov, O. and Medina-Casaubón, J., 2022. Development and Initial Validation of the Sport Education Scale. Measurement in Physical Education and Exercise Science, 26(1), pp.73-87. DOI: 10.1080/1091367X.2021.1948415 Quartile 1 (top 10 -25%)
- Jess, M., McMillan, P. and Carse, N., 2022. Physical Education and Health: A Bright Future?. In Physical Education Pedagogies for Health (pp. 109-122). Routledge. DOI: 10.4324/9781003225904
- Cale, L. and Harris, J., 2022. Key Health-Related Approaches, Pedagogical Principles and Learning in Physical Education. In Physical Education Pedagogies for Health (pp. 15-32). Routledge. DOI: 10.4324/9781003225904-2
- Cantwell, M., Kehoe, B., Moyna, N., McCaffrey, N., Skelly, F., Loughney, L., Walsh, D.M., Dowd, K., McCarren, A. and Woods, C., 2022. Study protocol for the investigation of the clinical effectiveness of a physical activity behaviour change intervention for individuals living with and beyond cancer. Contemporary Clinical Trials Communications, 26, p.100882. DOI: 10.1016/j.conctc.2021.100882 Quartile 2
- Capranica, L., Guidotti, F., Gonçalves, C., Blondel, L., Bovis, M., Costa, R., Debois, N., Figueiredo, A., MacDonncha, C., Pecnikar-Oblak, V. and Patoret, J.L., 2022. Development of an Online Multilingual Educational Programme for Parents of Dual-Career Athletes: A Participatory Design. Frontiers in Psychology, 13. DOI: 10.3389/fpsyg.2022.855531
 Quartile 1 (top 10 25%)
- Conroy, E., Toth, A.J. and Campbell, M.J., 2022. The effect of computer mouse mass on target acquisition performance among action video gamers. Applied Ergonomics, 99, p.103637. DOI: 10.1016/j.apergo.2021.103637 Quartile 1 (top 10 - 25%)
- Crotty, E.D., Hayes, K. and Harrison, A.J., 2022. Sprint start performance: the potential influence of triceps surae electromechanical delay. Sports Biomechanics, 21(5), pp.604–621. DOI: 10.1080/14763141.2019.1657932 Quartile 1 (top 10 - 25%)

- Crowley, E., Ng, K., Mujika, I. and Powell, C., 2022. Speeding up or Slowing Down? Analysis of Race Results in Elite-level Swimming from 2011-2019 to Predict Future Olympic Games Performances.
 Measurement in Physical Education and Exercise Science, 26(2), pp.130-140. DOI: 10.1080/1091367X.2021.1952592 Quartile 1 (top 10 -25%)
- Fitton Davies, K., Sacko, R.S., Lyons, M.A. and Duncan, M.J., 2022.
 Association between Functional Movement Screen Scores and Athletic Performance in Adolescents: A Systematic Review. Sports, 10(3), p.28. DOI: 10.3390/sports10030028 Quartile 1 (top 10 - 25%)
- Davies, R.W., Kozior, M., Lynch, A.E., Bass, J.J., Atherton, P.J., Smith, K. and Jakeman, P.M., 2022. The Effect of Fava Bean (Vicia faba L.) Protein Ingestion on Myofibrillar Protein Synthesis at Rest and after Resistance Exercise in Healthy, Young Men and Women: A Randomised Control Trial. Nutrients, 14(18), p.3688. DOI: 10.3390/nu14183688
 Quartile 1 (top 10%)
- Davis, M.E., Blake, C., Cunningham, C., Carson, B.P. and O'Donoghue, G., 2022. Comparison of time-matched aerobic, resistance or combined exercise training in women living with obesity: a protocol for a pilot randomised controlled trial—the EXOFFIT (Exercise for Obesity in Females to increase Fitness) study. Pilot and Feasibility Studies, 8(1), pp.1-13. DOI: 10.1186/s40814-022-01003-5 Quartile 2
- Dunne, A., O'Neill, C., Warrington, G., Rackard, G. and Cullen, S., 2022. Variability and accuracy of body fat estimates using skinfolds and DXA in elite Gaelic football players: a validation study and development of novel prediction equations. Sport Sciences for Health, 18(4), pp.1263-1272. DOI: 10.1007/s11332-022-00896-2 Quartile 3
- Dunne, A., Warrington, G., McGoldrick, A., Pugh, J., Harrison, M. and Cullen, S., 2022. Body Composition and Bone Health Status of Jockeys: Current Findings, Assessment Methods and Classification Criteria. Sports Medicine-Open, 8(1), p.23. DOI: 10.1186/s40798-022-00414-1 Quartile 1 (top 10%)
- Ferreira, H.J., Patton, K. and Parker, M., 2023. From isolation to collaboration: development of a community of Physical Education teachers in pandemic times. Movimento, 28. DOI: 10.22456/1982-8918.127470 Quartile 3
- Fleming, K.M., Herring, M.P., Coote, S.B. and Tindall, D., 2022.
 Participant experiences of eight weeks of supervised or home-based
 Pilates among people with multiple sclerosis: a qualitative analysis.
 Disability and Rehabilitation, 44(19), pp.5549-5556. DOI:
 10.22456/1982-8918.127470 Quartile 1 (top 10 25%)
- da Fonseca, G.W.P. and von Haehling, S., 2022. The fatter, the better in old age: The current understanding of a difficult relationship.
 Current Opinion in Clinical Nutrition & Metabolic Care, 25(1), pp.1-6.
 DOI: 10.1097/MCO.00000000000000802 Quartile 1 (top 10 - 25%)
- Freiberger, A., Beckmann, J., Freilinger, S., Kaemmerer, H., Huber, M., Nagdyman, N., Ewert, P., Pieper, L., Deppe, C., Kuschel, B. and Andonian, C., 2022. Psychosocial well-being in postpartum women with congenital heart disease. Cardiovascular Diagnosis and Therapy, 12(4), p.389. DOI: 10.21037/cdt-22-213 Quartile 2
- Freitas, T.T., Pereira, L.A., Alcaraz, P.E., Comyns, T.M., Azevedo, P.H. and Loturco, I., 2022. Change-of-direction ability, linear sprint speed, and sprint momentum in elite female athletes: Differences between three different team sports. Journal of strength and conditioning research, 36(1), pp.262-267. DOI: 10.1519/JSC.0000000000003857
 Quartile 1 (top 10%)
- Geary, M., Campbell, M., Kitching, N. and Houghton, F., 2022. "I'ma hurler... basically just a hurler": a mixed methods study of the athletic identity of elite Irish Gaelic Athletic Association dual career athletes. International Journal of Sport and Exercise Psychology, 20(3), pp.872– 895. DOI: 10.1080/1612197X.2021.1919742 Quartile 1 (top 10 - 25%)
- Giblin, S., Scully, P., Evers, J., Dalton, N., Hayes, G., Donnelly, A., Orla Neylon, O. and O'Gorman, C., 2022. Physical activity surveillance in adolescents with type 1 diabetes: a pilot mixed-methods investigation. Journal of Diabetes Research, 2022. DOI: 10.1155/2022/4202561
 Quartile 2

- Glaser, M., Green, G., Zigdon, A., Barak, S., Joseph, G., Marques, A., Ng, K., Erez-Shidlov, I., Ofri, L. and Tesler, R., 2022. The Effects of a Physical Activity Online Intervention Program on Resilience, Perceived Social Support, Psychological Distress and Concerns among At-Risk Youth during the COVID-19 Pandemic. Children, 9(11), p.1704. DOI: 10.3390/children9111704 Quartile 2
- Gonçalves, L., Parker, M., Luguetti, C. and Carbinatto, M., 2022. 'We united to defend ourselves and face our struggles': nurturing a physical education teachers' community of practice in a precarious context. Physical Education and Sport Pedagogy, 27(4), pp.339-352. DOI: 10.1080/17408989.2021.1891212 Quartile 1 (top 10%)
- Gonçalves, L.L., Parker, M., Luguetti, C. and Carbinatto, M., 2022. The facilitator's role in supporting physical education teachers' empowerment in a professional learning community. Sport, Education and Society, 27(3), pp.272–285. DOI: 10.1080/13573322.2020.1825371 Quartile 1 (top 10%)
- Gordon, B.R., McDowell, C.P., Lyons, M. and Herring, M.P., 2022. The
 effects of acute resistance exercise among young adults: A randomized
 controlled trial. Journal of Affective Disorders, 299, pp.102-107. DOI:
 10.1016/j.jad.2021.11.049 Quartile 1 (top 10%)
- Gould, R., Roberts, N.W., Murtagh, E.M., Hillsdon, M. and Foster, C., 2022. Remote, face-to-face, and group-based interventions for promoting strength training in healthy community-based adults. Cochrane Database of Systematic Reviews, 2022(4). DOI: 10.1002/14651858.CD014825
 Quartile 1 (top 10%)
- Harper, D.J., McBurnie, A.J., Santos, T.D., Eriksrud, O., Evans, M., Cohen, D.D., Rhodes, D., Carling, C. and Kiely, J., 2022. Biomechanical and neuromuscular performance requirements of horizontal deceleration: a review with implications for random intermittent multi-directional sports. Sports Medicine, 52(10), pp.2321-2354. DOI: 10.1007/s40279-022-01693-0 Quartile 1 (top 10%)
- Harris, J. and Cale, L., 2022. The Role of Physical Education in Health: Expectations, Challenges and Opportunities. Physical Education Pedagogies for Health, pp.1–14. DOI: 10.4324/9781003225904-1
- Harris, J. and Cale, L., 2022. The Promoting Active Lifestyles (PAL) Project: An Approach in Focus. In Physical Education Pedagogies for Health (pp. 77-91). Routledge. DOI: 10.4324/9781003225904-6
- Healy, R., Kenny, I.C. and Harrison, A.J., 2022. Profiling elite male 100-m sprint performance: the role of maximum velocity and relative acceleration. Journal of Sport and Health Science, 11(1), pp.75-84. DOI: 10.1016/j.jshs.2019.10.002 Quartile 1 (top 10%)
- Hytonen-Ng, E., Pihlainen, K., Ng, K. and Karna, E., 2022. Sounds of learning: Soundscapes-teacher perceptions of acoustic environments in Finland's open plan classrooms. Issues in Educational Research, 32(4), pp.1421-1440. Quartile 2
- Iannucci, C. and Parker, M., 2022. Beyond Lip Service: Making Student Voice a (Meaningful) Reality in Elementary Physical Education. Journal of Physical Education, Recreation & Dance, 93(8), pp.41-49. DOI: 10.1080/07303084.2022.2108177 Quartile 2
- Van Hoye, A., Vuillemin, A., Lane, A., Dowd, K., Geidne, S., Kokko, S., Donaldson, A., Seghers, J., Whiting, S. and Johnson, S., 2022.
 Development of the Health Promoting Sports Club-National Audit Tool: Aurélie Van Hoye. European Journal of Public Health, 32(Supplement_3), pp.ckac129-271. DOI: 10.1093/eurpub/ckac072 Quartile 1 (top 10 - 25%)
- Kelly, N., Stafford, J., Craig, C., Herring, M.P. and Campbell, M., 2022.
 Using a virtual reality cricket simulator to explore the effects of pressure, competition anxiety on batting performance in cricket. Psychology of Sport and Exercise, 63, p.102244. DOI:
 10.1016/j.psychsport.2022.102244 Quartile 1 (top 10 25%)
- Kennedy, S., MacPhail, A. and Varley, P., 2022. Other voices in the adventure expedition assemblage. Annals of Leisure Research, 25(3), pp.399-416. DOI: 10.1080/11745398.2020.1836665 Quartile 1 (top 10%)
- Khalil, N., Aljanazrah, A., Hamed, G. and Murtagh, E., 2022. Exploring teacher educators' perspectives of play-based learning: a mixed method approach. Education Sciences, 12(2), p.95. DOI: 10.3390/educsci12020095 Quartile 2

- Khudair, M., Marcuzzi, A., Ng, K., Tempest, G.D., Bartoš, F., Peric, R., Maier, M., Beccia, F., Boccia, S., Brandes, M. and Cardon, G., 2022. DE-PASS Best Evidence Statement (BESt): modifiable determinants of physical activity and sedentary behaviour in children and adolescents aged 5-19 years-a protocol for systematic review and meta-analysis. BMJ open, 12(9), p.e059202. DOI: 10.3390/educsci12020095 Quartile 1(top 10 25%)
- Kiely, M., Warrington, G., McGoldrick, A. and Cullen, S., 2022. Physical preparation strategies of professional jockeys. Journal of strength and conditioning research, 36(11), pp.3184-3189. DOI: 10.1519/JSC.00000000000003514 Quartile 1 (top 10%)
- Kohoutek, J., Maráček, M., Ng, K. and Hamrik, Z., 2022. Test-retest reliability of selected HBSC items in Vietnam: well-being, physical and sedentary activities, and eating behaviours. BMC Medical Research Methodology, 22(1), pp.1-11. DOI: 10.1186/s12874-022-01624-7
 Quartile 1 (top 10%)
- Le Faucheur, A., Jéhannin, P., Chanteau, A., Blanc-Petitjean, P., Donnelly, A., Hoffmann, C., Henni, S., Bura-Rivière, A., Kaladji, A., Lanéelle, D. and Mahé, G., 2022. A Multicenter, Investigator-Blinded, Randomized Controlled Trial to Assess the Efficacy of Calf Neuromuscular Electrical Stimulation Program on Walking Performance in Peripheral Artery Disease: The ELECTRO-PAD Study Protocol. Journal of Clinical Medicine, 11(24), p.7261. DOI: 10.3390/jcm11247261
 Quartile 1 (top 10 - 25%)
- Li, C., Haegele, J.A., Sun, F., Alves, M.L.T., Ang, S.H.C., Lee, J., Ng, K., dos Santos Alves, I., Healy, S., Huang, W.Y. and Rintala, P., 2022. Meeting the 24-h movement guidelines and health-related outcomes among youth with autism spectrum disorder: a seven-country observational study. Child and Adolescent Psychiatry and Mental Health, 16(1), p.50. DOI: 10.1186/s13034-022-00488-5 Quartile 1 (top 10%)
- Lorusso, J.R., Scanlon, D., MacPhail, A., Hargreaves, S., Storey, M. and Dabbagh, L., 2022. Shifting policy perspectives: revelatory incident narratives from physical education stakeholders. Curriculum Studies in Health and Physical Education, 13(3), pp.284-297. DOI: 10.1080/25742981.2022.2126325 Quartile 2
- Lorusso, J.R. and Schaefer, L., 2022. Vital signs or flatline? Canadian physical and health education research publication activity. Sport, Education and Society, 27(5), pp.559-577. DOI: 10.1080/13573322.2021.1890008 Quartile 1 (top 10%)
- Luguetti, C., Gonçalves, L.L., Borges, C. and MacPhail, A., 2023.
 SOLIDARITY IN ACTION: A CO-DESIGNED SPECIAL ISSUE WITH BRAZILIAN AND INTERNATIONAL RESEARCHERS. Movimento, 28. DOI: 10.22456/1982-8918.127882 Quartile 3
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