


The logo for the Welsh Institute of Performance Science is located in the top right corner. It features a stylized circular emblem composed of three overlapping, curved lines in blue, green, and red. Below the emblem, the text 'WELSH INSTITUTE OF PERFORMANCE SCIENCE' is written in a clean, sans-serif font. Underneath that, the Welsh name 'SEFYDLIAD GWYDDORAU PERFFORMIO CYMRU' is displayed in a similar font.

WELSH INSTITUTE
OF PERFORMANCE SCIENCE
SEFYDLIAD GWYDDORAU
PERFFORMIO CYMRU

The background of the cover is a photograph of a female rugby player in a red jersey running with the ball. She is being tackled by a referee in a striped shirt. The player's jersey has a 'Gold Coast 2022' logo. The scene is set on a grassy field with a blurred stadium background.

WELSH INSTITUTE OF PERFORMANCE SCIENCE ANNUAL REPORT

2019/2020

At the bottom of the page, there are three horizontal lines in blue, green, and red, matching the colors of the institute's logo.

THE YEAR IN REVIEW

Over the last year, the Welsh Institute of Performance Science (WIPS) have been working hard with Sport Wales to identify and address performance driven research questions to enhance the sporting capability and success of athletes across Wales.

During 2019/2020, we have been involved in over 25 projects, ranging from understanding athletes', coaches', and practitioners' wellbeing and developing coach education resources regarding the impact of the menstrual cycle on performance and training, to examining the impact of wearing masks during exercise and returning to training after an enforced break, and developing a resource bank for practitioners. We are indebted to all the athletes, coaches, practitioners, and institute staff who have engaged with our projects, either through raising questions, suggesting projects, or participating in and facilitating data collection. The quality of the work that we can conduct, and the subsequent impact

this can have on Welsh Performance Sport, is entirely dependent upon your engagement, so thank-you!

Aligned with the mission of WIPS, we have sought various opportunities to feedback and share insights from these projects through a range of means including presentations to institute staff, practitioners, performance directors, and coaches, as well as written reports, executive summaries, infographics, and through informal conversations. As a result we have been able to support changes in, behaviours and practices across numerous sports, within practitioner groups, and more broadly among Sport Wales personnel and the wider sport network (e.g., UK Coaching, EIS, SINI, SIS). Again, we are extremely grateful to all who have engaged with such feedback and used it to enhance or further your own work and practice. We look forward to seeing the impact any changes have on the performance, health, and wellbeing of



athletes, coaches, and practitioners as we head towards Tokyo 2021 and Birmingham 2022.

This year has also signalled the end of our current cycle of funding, which ended in November 2020. However, we are delighted that Sport Wales have committed to a further four years of funding (reviewed annually). With this funding in place, we have already set about making important changes within WIPS to further enhance our capacity and capabilities to increase the number and types of projects that we can conduct and support. Specifically, we have expanded the research steering group (RSG) quite considerably to incorporate a broader range of disciplines (see page 6), which will enable us to address different research questions. We have also reviewed and revised the composition of our strategic management board, streamlined our expression of interest and project appraisal process, and enhanced our communication strategy to maximise the dissemination of information and findings. With these changes in place, we are really excited for the year ahead and look forward to being presented with more performance driven research questions.


Wishing you all a happy, healthy, and successful year ahead,

Liam, Brian, Camilla
and the members of the RSG

2019/2020 EXECUTIVE SUMMARY

- Over 25 projects supported
- More than 50 presentations and feedback sessions conducted
- Secured 4 years of further funding
- Restructured the strategic management board
- Broadened the research steering group
- Expanded RSG to include representation from EIS, SINI, and SIS
- Extended our knowledge dissemination network
- Revised our communication strategy and practices
- Reviewed project proposal and appraisal approaches



A female high jumper is captured in mid-air, clearing a bar. She is wearing a red sports top with a Welsh dragon logo and black shorts. Her hair is flying, and her expression is one of intense focus. The background is a blurred stadium filled with spectators.

Overview of the Welsh Institute of Performance Science

Statement of Purpose

The purpose of the Welsh Institute of Performance Science is to conduct multi-disciplinary, world-leading applied performance science projects that enhance the performance of Welsh athletes and businesses, improves the performance pathway, and builds capacity in these areas for the future. Additionally, WIPS aims to train future scientists, and increase strategic collaboration between Welsh sport, academia, and business.

FUNCTION AND PROCESS

The Welsh Institute of Performance Science works to enhance performance in Welsh sport and increase links between sport, academia and business in the following ways.

Priority is given to the first three approaches:

1. Performance Driven Questions, Science Driven Answers

Following evaluation of Welsh Sport performances and systems, performance issues or areas to improve are identified; the Research Steering Group and Sport Wales' representatives then discuss and seek out potential strategies, leading to projects being conducted to address the question or issue.

2. Performance Driven Questions, Industry Driven Answers

Following evaluation of Welsh Sport performances and systems, performance issues or areas to improve are identified; the Research Steering Group then discuss and seek out potential strategies, leading to collaboration with appropriate industry partners to answer the performance question.

3. Performance Driven Questions, Science and Industry Driven Answers

Following evaluation of Welsh Sport performances and systems, performance issues or areas to improve are identified; the Research Steering Group discuss and seek out potential strategies, leading to research being conducted in conjunction with industry partners to answer the performance question/issue.

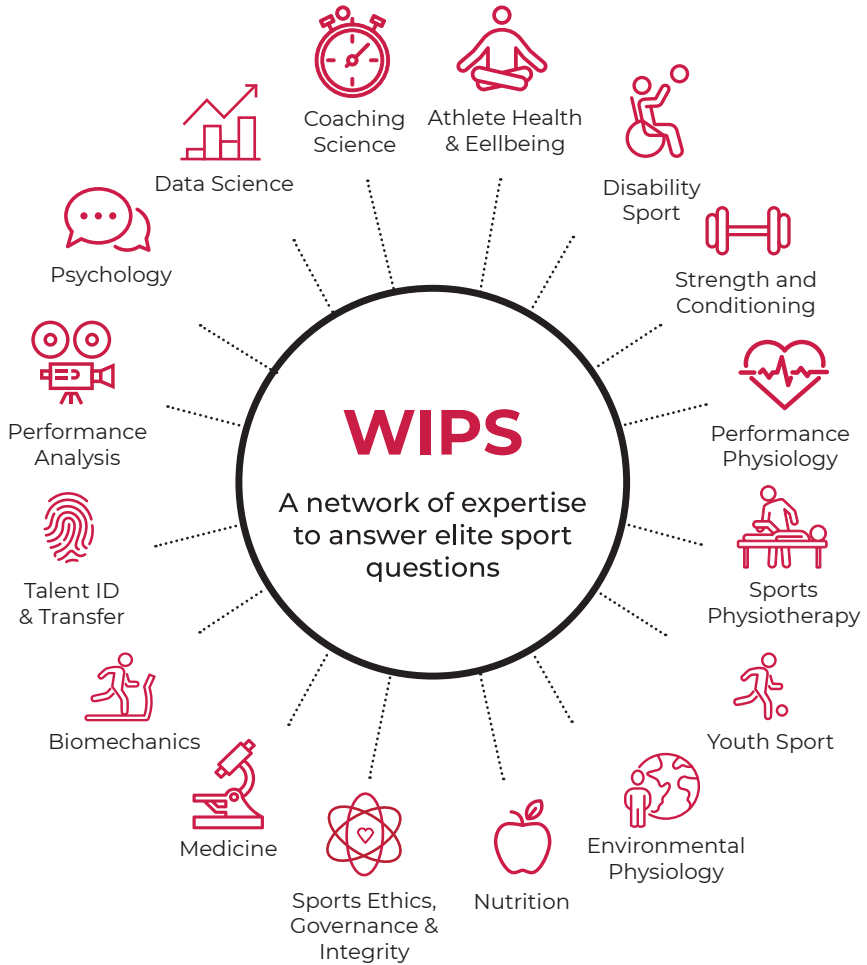
4. Science Driven Performance Applications to Enhance Performance

Based on current research findings, Research Steering Group members can make suggestions to the wider Research Steering Group regarding potential performance enhancing strategies. If the Research Steering Group deem it appropriate, research and discussion examining the feasibility and applicability of these strategies to Welsh sport performance will be conducted. If the findings yield positive outcomes these strategies may be implemented within Welsh Sport via Sport Wales Institute.

5. Industry Driven Performance Applications to Enhance Performance

Industrial partners (and other innovation specialists) can approach the Research Steering Group regarding technological or industrial advances that might enhance sporting performance. If deemed appropriate by the Research Steering Group, research and discussion examining the feasibility and applicability of these strategies to Welsh Sport performance are conducted. If the findings yield positive outcomes these strategies may be implemented within Welsh Sport via Sport Wales Institute.

THE NEW RESEARCH STEERING GROUP COMPOSITION



EXAMPLES OF PROJECTS COMPLETED OR SUPPORTED BY WIPS THIS YEAR

PROJECT TITLE	PROJECT AIMS	SPORTS & DISCIPLINES
Heart rate variability and biofeedback dissemination and training	<ol style="list-style-type: none"> 1) Develop a clearer understanding of the relationship between HRV, stress markers and sleep quality in elite athletes 2) Explore whether the already beneficial use of biofeedback can be extended to help the recovery of athletes from acute training/competition load. 3) A better understanding of the mechanisms by which HRVB acts to restore homeostasis 	Shooting Swimming Physiology Psychology
Optimising athletic development	<ol style="list-style-type: none"> 1) Conduct a pilot study evaluating the impact of a strength and conditioning intervention, delivered to adolescents within school PE, on athletic competence and psychosocial outcomes. 2) Revise, implement, and evaluate a 12-week intervention in secondary schools and assess the impact on athletic competence and psychosocial outcomes. 3) Engage in longitudinal follow up to assess the long-term impact of the strength and conditioning intervention. 	Strength and Conditioning Sport System Strategy and Services
Promoting and protecting the wellbeing of performance	<ol style="list-style-type: none"> 1) Developing an understanding of what wellbeing means in performance swimming and identifying the factors that impact upon it. 2) Designing, implementing, and evaluating a wellbeing intervention with performance swimmers. 	Swimming Psychology Performance Lifestyle
Start performance optimisation in swimming	<ol style="list-style-type: none"> 1) Validate the nemo analysis system, specifically start to 15m time. 2) Identify the validity and impact of 15m time on swimming performance across males and females and different race distances. 3) Develop pre-competition interventions to optimise start to 15m time. 	Swimming Performance Analysis

Bio-psycho-social framework for understanding of adolescent development through and in sport	<ol style="list-style-type: none"> 1) Review of literature pertaining to biopsychosocial development in and through sport 2) Coach education concerning adolescent biopsychosocial development and how principles associated with this model can be integrated into coaching practice. 	Coach Education Psychology
Development of psychology screening tools	<ol style="list-style-type: none"> 1) To create a psychological tools framework for use in standard operating procedures and impact assessments, and to populate this framework with validated sport psychology tools. 2) Development of a data repository and dashboard from which reports can be generated and shared 	Psychology
How to guide for automated psychology behaviours screening data	<ol style="list-style-type: none"> 1)) To extend the previous 'Winning Behaviours' project by creating a blank/example template version of this tool. 2) Develop a user-guide that provides information on how to edit the tool to ensure practitioners can fully customise this based on the specific needs of their sport 	Psychology
Practitioner service allocation data collection and management	<ol style="list-style-type: none"> 1) Develop prototype dashboard(s) to visualise and interrogate the data pertaining to practitioner service allocation for different audiences. 	All disciplines and sports
Impact of the menstrual cycle for female sport science practitioners and coaches	<ol style="list-style-type: none"> 1) Examine female coaches and sport science practitioner's perception and experiences of the menstrual cycle 	All disciplines and sports (e.g. rowing and triathlon)
Nutrition management strategies for the menstrual cycle	<ol style="list-style-type: none"> 1) A systematic review of non-pharmaceutical supplements to manage menstrual symptoms. 	All sports
Menstrual cycle school survey	<ol style="list-style-type: none"> 1) UK wide survey aimed at all teachers, to quantify menstrual cycle education provided in schools 	All sports

Injury risk and the menstrual cycle review	1) Literature review of potential injury risk associated with different stages of the menstrual cycle in female athletes	All sports Physiotherapy
RED-s prevalence and management	1) To complete secondary analysis of data collected from a recently established medical screening tool implemented by Sport Wales medical practitioners, to identify any specific prevalence of RED-S symptoms in athletes. 2) If symptoms of RED-S are flagged or apparent within the data the project will investigate how to manage these, suggesting what resources and protocols are required.	All sports (e.g. athletics and gymnastics) Medical Nutrition Physiology
Identifying meaningful worthwhile change in DXA results	1) Explore what is the rigour of sport wales pre-DXA protocol? e.g. fasted, rested hydrated? 2) Identify what are the reliable and useful metrics from DXA that highlight a change that will be meaningful for sports? 3) Examine what counts as a meaningful change in DXA scan for body composition (& BMD)? 4) Consider how does age, weight & sport influence the results? 5) Identify what analysis will give the most confident changes in DXA numbers? 6) Identify what the main 'red flags' to be aware of when interpreting DXA results?	All sports (e.g. boxing) Medical Nutrition
Continual professional development of coaches	Understanding and facilitating opportunities for ongoing development through social approaches to learning (e.g. communities of practice).	All sports
Development of gymnastics monitoring and wellness tools	1) To create a monitoring tool to assess subjective and objective pre training metrics as well as gymnastics specific training load.	Gymnastics Medical Physiology Strength and Conditioning
Returning to training after an enforced break	1) Assist athletes, coaches and support staff safely planning their return to full training and minimise potential future time loss.	All sports Medical Physiology

SPOTLIGHT ON PROJECTS:

1. ENABLING PEOPLE TO THRIVE IN PERFORMANCE ENVIRONMENTS

Project Contributors:

Deirdre Angella (Sport Wales Performance Coach Development Lead); Dr Hamish Cox (WIPS Research Associate), Dr Camilla Knight (WIPS Youth Sport Research Lead), Cath Shearer (Sport Wales Athlete and Participant Experience Lead) and Dr Dave Shearer (WIPS Performance Psychology Lead).

Aims

The new Sport Wales strategy focussed on “Enabling Sport in Wales to Thrive”. Due to this new focus, the psychology and performance lifestyle teams at Sport Wales Institute were motivated to ensure that they contributed to this new strategy in a proactive way.

Therefore, the aims of this project were to, i) complete a thorough review of the existing psychology literature on thriving, ii) create a position statement, and iii) define how this would be used to drive the practice of the psychology and performance lifestyle team in their interactions with athletes, coaches and sport governing bodies.



Outcomes

The literature on thriving is complex, as it is similar to a host of other psychological characteristics (e.g., resilience). So, an initial working definition was developed from the literature that could be mapped onto some of key characteristics of the Sport Wales strategy. We dovetailed this working definition with what is currently known about the best ‘talent development environments’ to provide a view on how the practitioner team could embed the main principles of thriving into their practice, and support athletes through their development pathway.

Impact

We worked with both the psychology and performance lifestyle team to develop an operational plan for how they would support the development of thriving through the development pathways. This consisted of some general working principles (e.g., promotion of holistic development) and specific methods of working with the athlete (e.g., exploring dual career opportunities) and the sport (e.g., developing induction and exit processes). The position statement was then used in wider discussion across Sport Wales in relation to the wider Sport Wales strategy.

2. THE WELLBEING AND MENTAL HEALTH OF ATHLETES, COACHES AND SPORT SCIENCE

Project Contributors:

Georgia Brown (Swansea University PhD student), Dr Paul Gorczynski (University of Portsmouth), Dan Grimstead (Sport Wales Clinical Team Lead), Felicity Hares (Sport Wales Strategic Workforce Development Lead), Dr Denise Hill (WIPS Athlete Health and Wellbeing Lead), Louise Jones (Sport Wales Senior Sport Psychologist), Dr Camilla Knight (WIPS Youth Sport Research Lead), Dr Mike Mellick (Cardiff Metropolitan University), and Cath Shearer (Sport Wales Athlete and Participant Experience Lead).

Aims

In response to the Duty of Care Review (2017) and Future Generations (Wales) Act (2015), the project aims to: i) examine the factors which influence (positively & negatively) the wellbeing and mental health of athletes, coaches and sport science practitioners across Welsh performance sports; ii) devise, implement and evaluate a bespoke and evidenced-based intervention which can maintain/enhance the wellbeing and mental health of athletes, coaches and sport science practitioners within each participating sport.



Outcomes

Athletes, coaches, and sport science practitioners from participating Welsh sports have completed an on-line survey to identify levels of wellbeing, mental health, and mental health literacy. In addition, a sample of athletes, coaches, and sport science practitioners from four sports have completed individual interviews to discuss the factors which influence (positively and negatively) their wellbeing and mental health.

Impact

The findings will be disseminated directly to the participating sports and key members of the Sport Wales (Institute) leadership team, and will inform sport-specific, evidence-based interventions which aim to enhance the wellbeing and mental health of the athletes, coaches, and sport science practitioners. Moreover, for selected sports (judo and cycling) the intervention will be implemented, embedded and evaluated over a year, and its efficacy relayed to the sport and Sport Wales. As such, the overall anticipated impact is to provide recommendations and bespoke interventions which can be utilised by the sports and Sport Wales, to maintain/enhance the wellbeing and mental health of athletes, coaches, and sport science practitioners involved in Welsh performance sport.

3. ASSESSING THE EFFECTIVENESS OF COACH EDUCATION PROVIDED REGARDING THE MENSTRUAL CYCLE

Project Contributors:

Deirdre Angella (Sport Wales Performance Coach Development Lead), Dr Natalie Brown (WIPS research assistant), Dr Brendan Cropley (WIPS Coaching Science Lead) and Dr Camilla Knight (WIPS Youth Sport Research Lead).

Aims

Following interviews with elite female athletes, conversations with coaches and insight from sports, it became evident there was limited education and resources available for coaches to access to increase knowledge and therefore confidence relating to the menstrual cycle and impact on female athlete health and performance. The project aims to 1) create coach education and resources in 5 areas relating to the menstrual cycle and 2) assess the effectiveness of the education and resources for increasing knowledge of and confidence talking about the menstrual cycle.



Outcomes

To date, five workshops have been developed with additional resources which are now being delivered to sports in Wales and expanding to the UK Coaching online platform to share this wider. Coaches have completed questionnaires before, after and also 6-and 12- months after (where already at this time point) to determine the impact on their knowledge pertaining to the menstrual cycle, confidence talking and evidenced changes to practice as a result of learning and engagement across the workshops. Data collection on effectiveness of the coaching workshops and resources will allow for continued improvement along with identifying further approaches required to create change in perceptions and approach associated with the menstrual cycle in sport.

Impact

The education and resources created on this topic area are being directly disseminated and shared with coaches to inform and change practice, better supporting female athletes for both health and performance in sport. Although coaches of several sports in Wales have received the opportunity to engage, this is being expanded to UK wide to further impact and reach coaches to inform their practice.

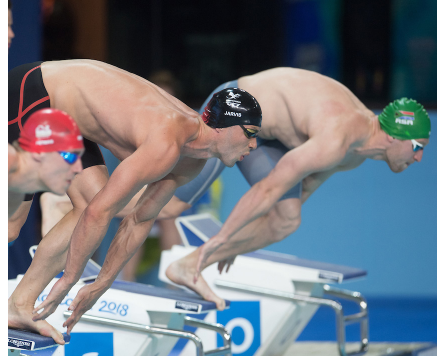
4. USE OF MASKS DURING EXERCISE FOR HEALTHY INDIVIDUALS (COVID19)

Project Contributors:

Dr. Dan Cunningham (WIPS Research Assistant), Brian Hughes (Sport Wales Lead Physiologist), Dr. Rhodri Martin (WIPS Medicine Lead), and Dan Grimstead (Sport Wales Clinical Team Lead).

Aims

With indoor elite sports returning to training, some sports will be unable to maintain social distancing in their sport environment. Sport Wales medical teams have requested if sports cannot social distance that they wear face coverings/masks during training. This project is to outline the potential benefits and risks of wearing a face mask during exercise in healthy athletes.



Outcomes

Initially a review of the available literature of using masks to reduce virus transmission to aid athlete and coach buy-in. Secondly a review of literature investigating the psychological and physiological impact of exercising whilst wearing masks/face coverings was conducted. This information was summarised into an athlete/coach friendly infographic.

Impact

The findings were disseminated directly to the relevant sports via the Sport Wales medical team. The infographic provided evidence for the use of masks in the sport environment but also provided information on how this would likely affect the athletes physically and perceptually. This information allowed for coaches and practitioners to modify any sessions based on the expected differences in perception of effort experienced by the athletes.



How WIPS Projects work



THANK-YOU TO THE RESEARCH STEERING GROUP MEMBERS FOR THEIR CONTRIBUTIONS

New members:

Dr Neil Bezodis (Biomechanics Lead),
Swansea University

Professor Brendan Cropley (Coaching Science Lead), University of South Wales

Dr Ryan Chambers (WRU Representative),
Welsh Rugby Union

Dr Ruth Fairchild (Nutrition Co-lead),
Cardiff Metropolitan University

Dr Vicky Gottwald (Talent ID and Transfer Lead), Bangor University

Dr Denise Hill (Athlete Health and Wellbeing Co-lead), Swansea University

Dr Ambikesh Jayal (Data Science Lead),
Cardiff Metropolitan University

Dr Kelly Mackintosh (Athlete Health and Wellbeing Co-lead), Swansea University

Dr Rhodri Martin (Medicine Lead),
Sport Wales

Dr Tom Poulson (Disability Sport Lead),
English Institute of Sport

Dr Liba Sheeran (Sports Physiotherapy)
Cardiff University

Dr Mark Waldron (Performance Physiology Lead), Swansea University

Continuing members:

Dr Pete Brown (EIS Representative),
English Institute of Sport

Dr Malcolm Fairweather (SIS Representative), SportsScotland Institute of Sport

Dr Declan Gamble (SNISI Representative),
Sports Institute Northern Ireland

Brian Hughes (Co-Chair RSG),
Sport Wales

Professor Liam Kilduff (Co-Chair RSG),
Swansea University

Dr Camilla Knight (Youth Sport Lead),
Swansea University

David Lasini (SINI Representative),
Sports Institute Northern Ireland

Dr Thomas Love (Nutrition Co-lead),
Swansea University

Professor Jon Oliver (Strength and Conditioning Lead), Cardiff Metropolitan University

Dr Sam Oliver (Extreme Physiology Lead),
Bangor University

Professor Dave Shearer (Psychology Lead), University of South Wales

And the outstanding WIPS Research Associates (who do all the hard work on the projects!):

- Dr Natalie Brown
- Dr Hamish Cox
- Dr Dan Cunningham

If you would be interested in connecting with any of the research steering group members or learning more about their research, please contact us at: **WIPS@swansea.ac.uk** and we will be more than happy to connect you.



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**SEFYDLIAD GWYDDORAU
PERFFORMIO CYMRU
ADRODDIAD BLYNYDDOL**

2019/2020

ADOLYGIAD O'R FLWYDDYN

Yn ystod y flwyddyn ddiwethaf, mae Sefydliad Gwyddorau Perfformio Cymru (WIPS) wedi bod yn gweithio'n galed gyda Chwaraeon Cymru i nodi a rhoi sylw i gwestiynau ymchwil a sbardunir gan berfformiad er mwyn gwella gallu a llwyddiant chwaraeon athletwyr ledled Cymru.

Yn ystod 2019/2020, rydym wedi bod yn ymwneud â mwy na 25 o brosiectau, yn amrywio o ddeall lles athletwyr, hyfforddwy ac ymarferwyr a datblygu adnoddau addysgu hyfforddwy am effaith cylch y mislir ar berfformiad a hyfforddiant, i edrych ar effaith gwisgo masgiau yn ystod ymarfer corff a dychwelyd i hyfforddi ar ôl seibiant gorfodol, a datblygu cronfa o adnoddau ar gyfer ymarferwyr. Rydym yn ddyledus i'r holl athletwyr, hyfforddwy, ymarferwyr a staff sefydliadau sydd wedi ymgysylltu â'n prosiectau, naill ai drwy godi cwestiynau, awgrymu prosiectau, neu gymryd rhan a hwyluso casglu data. Mae ansawdd y gwaith y gallwn ei wneud, a'r effaith ddilynol y gall hyn ei chael ar

Chwaraeon Perfformiad yng Nghymru, yn gwbl ddbynol ar eich cyfranogiad chi, felly diolch!

Ochr yn ochr â chenhadaeth WIPS, rydym wedi chwilio am gyfleoedd amrywiol i roi adborth a rhannu gwybodaeth o'r prosiectau hyn drwy amrywiaeth o ddulliau, gan gynnwys cyflwyniadau i staff sefydliadau, ymarferwyr, cyfarwyddwyr perfformiad a hyfforddwy, yn ogystal ag adroddiadau ysgrifenedig, crynodebau gweithredol, graffeg gwybodaeth, a thryw sgysiaau anffurfiol. O ganlyniad, rydym wedi gallu cefnogi newidiadau mewn ymddygiad ac arferion ar draws nifer o chwaraeon, mewn grwpiau ymarferwyr, ac yn fwy cyffredinol ymhlith personél Chwaraeon Cymru a'r rhwydwaith chwaraeon ehangach (e.e., UK Coaching, EIS, SINI, SIS). Unwaith eto, rydym yn hynod ddiolchgar i bawb sydd wedi ymgysylltu ag adborth o'r fath a'i ddefnyddio i wella neu ddatblygu eich gwaith a'ch ymarfer eich hun. Edrychwn ymlaen at weld yr effaith y bydd unrhyw newidiadau'n ei chael ar



berfformiad, iechyd a lles athletwyr, hyfforddwyr ac ymarferwyr wrth i ni anelu at Tokyo 2021 a Birmingham 2022.

Mae eleni hefyd wedi nodi diwedd ein cylch cyllido presennol, a ddaeth i ben ym mis Tachwedd 2020. Fodd bynnag, rydym wrth ein bodd bod Chwaraeon Cymru wedi ymrwymo i bedair blynedd arall o gyllid (a adolygir yn flynyddol). Gyda'r cyllid hwn yn ei lle, rydym eisoes wedi mynd ati i wneud newidiadau pwysig yn WIPS er mwyn gwella ein capasiti a'n galluoedd ymhellach i gynyddu nifer a math y prosiectau y gallwn eu cynnal a'u cefnogi. Yn benodol, rydym wedi ehangu'r grŵp llywio ymchwil (RSG) yn eithaf sylweddol i ymgorffori ystod ehangach o ddisgyblaethau (edrychwch ar dudalen 6), a fydd yn ein galluogi i roi sylw i gwestiynau ymchwil gwahanol. Rydym hefyd wedi adolygu a diwygio cyfansoddiad ein bwrdd rheoli strategol, wedi symleiddio ein proses mynegi diddordeb ac arfarnu prosiectau, ac wedi gwella ein strategaeth gyfathrebu er mwyn dosbarthu cymaint â phosibl o wybodaeth a chanfyddiadau. Gyda'r newidiadau hyn yn eu lle, rydym yn gyffrous iawn am y flwyddyn sydd i ddod ac yn edrych ymlaen at dderbyn rhagor o gwestiynau ymchwil sy'n cael eu sbarduno gan berfformiad.


Gan ddmuno blwyddyn hapus, iach a llwyddiannus i chi i gyd,

Liam, Brian, Camilla
ac aelodau'r RSG

2019/2020 CRYNODEB GWEITHREDOL

- Cefnogwyd mwy na 25 o brosiectau
- Cynhaliwyd mwy na 50 o gyflwyniadau a sesiynau adborth
- Sicrhawyd 4 blynedd o gyllid pellach
- Ailstrwythurwyd y bwrdd rheoli strategol
- Ehangwyd y grŵp llywio ymchwil (RSG)
- Ehangwyd RSG i gynnwys cynrychiolaeth o EIS, SINI ac SIS
- Ehangwyd ein rhwydwaith dosbarthu gybyodaeth
- Diwygiwyd ein strategaeth a'n harferion cyfathrebu
- Adolygwyd ein cynigion prosiect a'n dulliau arfarnu



A female high jumper in mid-air, clearing a bar. She is wearing a red sports top and black shorts. The background is a blurred stadium with spectators.

Trosolwg o Sefydliad Gwyddorau Perfformio Cymru

Datganiad o Bwrpas

Pwrpas Sefydliad Gwyddorau Perfformio Cymru yw cynnal prosiectau gwyddorau perfformio cymhwysol amlddisgyblaethol sy'n flaenllaw yn y byd ac yn gwella perfformiad athletwyr a busnesau Cymru, yn gwella'r llwybr perfformio, ac yn meithrin gallu yn y meysydd hyn ar gyfer y dyfodol. Yn ogystal, nod WIPS yw hyfforddi gwyddonwyr y dyfodol, a chynyddu cydweithredu strategol rhwng chwaraeon, y byd academiaidd a busnes yng Nghymru.

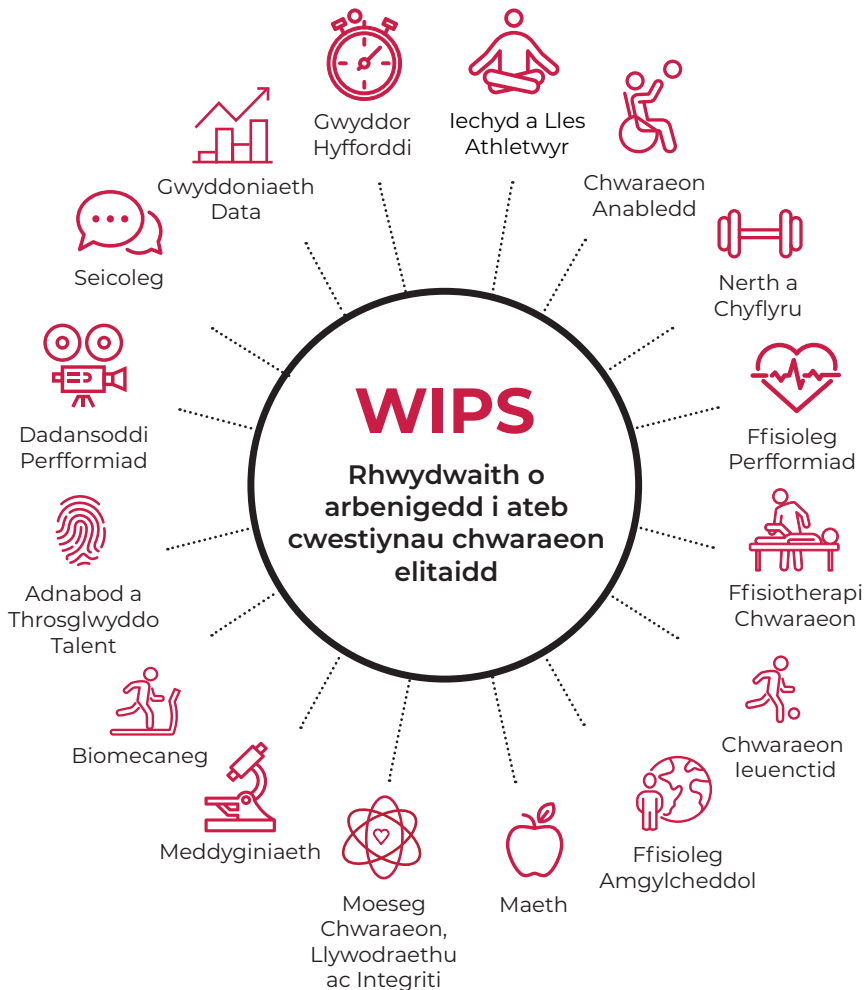
SWYDDOGAETH A PHROSES

Mae Sefydliad Gwyddorau Perfformio Cymru yn gweithio i wella perfformiad yn y byd chwaraeon yng Nghymru a chynyddu'r cysylltiadau rhwng chwaraeon, y byd academaidd a busnes yn y ffyrdd canlynol.

Rhoddir blaenoriaeth i'r tri dull cyntaf:

1. Cwestiynau a Sbardunir gan Berfformiad, Atebion a Sbardunir gan Wyddoniaeth
Ar ôl gwerthuso perfformiadau a systemau Chwaraeon yng Nghymru, nodir materion perfformio neu feysydd i'w gwella; wedyn mae'r Grŵp Llywio Ymchwil a chynrychiolwyr Chwaraeon Cymru yn trafod ac yn chwilio am strategaethau posibl, gan arwain at gynnal prosiectau i roi sylw i'r cwestiwn neu'r mater.
2. Cwestiynau a Sbardunir gan Berfformiad, Atebion a Sbardunir gan Ddiwydiant
Ar ôl gwerthuso perfformiadau a systemau Chwaraeon yng Nghymru, nodir materion perfformio neu feysydd i'w gwella; wedyn mae'r Grŵp Llywio Ymchwil yn trafod ac yn chwilio am strategaethau posibl, gan arwain at gydweithio â phartneriaid diwydiant priodol i ateb y cwestiwn perfformiad.
3. Cwestiynau a Sbardunir gan Berfformiad, Atebion a Sbardunir gan Wyddoniaeth a Diwydiant
Ar ôl gwerthuso perfformiadau a systemau Chwaraeon yng Nghymru, nodir materion perfformio neu feysydd i'w gwella; wedyn mae'r Grŵp Llywio Ymchwil yn trafod ac yn chwilio am strategaethau posibl, gan arwain at gynnal ymchwil ar y cyd â phartneriaid diwydiant i ateb y cwestiwn/ mater perfformiad.
4. Perfformiad a Sbardunir gan Wyddoniaeth
Ceisiadau i Wella Perfformiad Yn seiliedig ar ganfyddiadau ymchwil cyfredol, gall aelodau'r Grŵp Llywio Ymchwil wneud awgrymiadau i'r Grŵp Llywio Ymchwil ehangach ynghylch strategaethau posibl i wella perfformiad. Os yw'r Grŵp Llywio Ymchwil o'r farn ei bod yn briodol, bydd ymchwil a thrafodaeth sy'n edrych ar ddichonoldeb a chymhwysedd y strategaethau hyn i berfformiad chwaraeon yng Nghymru yn cael eu cynnal. Os bydd y canfyddiadau'n arwain at ganlyniadau cadarnhaol, efallai y caiff y strategaethau hyn eu gweithredu yn y byd Chwaraeon yng Nghymru drwy Athrofa Chwaraeon Cymru.
5. Perfformiad a Sbardunir gan Ddiwydiant
Ceisiadau i Wella Perfformiad Gall partneriaid diwydiannol (ac arbenigwyr arloesi eraill) gysylltu â'r Grŵp Llywio Ymchwil ynghylch datblygiadau technolegol neu ddiwydiannol a allai wella perfformiad chwaraeon. Os yw'r Grŵp Llywio Ymchwil o'r farn ei bod yn briodol, bydd ymchwil a thrafodaeth sy'n edrych ar ddichonoldeb a chymhwysedd y strategaethau hyn i berfformiad chwaraeon yng Nghymru yn cael eu cynnal. Os bydd y canfyddiadau'n arwain at ganlyniadau cadarnhaol, efallai y caiff y strategaethau hyn eu gweithredu yn y byd Chwaraeon yng Nghymru drwy Athrofa Chwaraeon Cymru.

CYFANSODDIAD Y GRŴP LLYWIO YMCHWIL NEWYDD



ESIAMPLAU O BROSIECTAU A GWBLHAWYD NEU A GEFNOGWYD GAN WIPS ELENI

TEITL Y PROSIECT	AMCANION Y PROSIECT	Y CHWARAEON A'R DISGYBLAETHAU CYSYLLTIEDIG
Amrywiad curiad y galon a dosbarthu bioadbornth a hyfforddiant	<p>1) Datblygu dealltwriaeth gliriach o'r berthynas rhwng HRV, marcwyr straen ac ansawdd cwsg mewn athletwyr elitaidd.</p> <p>2) Edrych a ellir ymestyn y defnydd buddiol eisoes o fioadbornth i helpu gydag adferiad athletwyr o faich hyfforddi / cystadlu aciwt.</p> <p>3) Gwell dealltwriaeth o'r mecanweithiau y mae HRVB yn eu defnyddio i adfer homeostasis (e.e., drwy brosesau cysgu).</p>	Saethu Nofio Ffisioleg Seicoleg
Sicrhau'r datblygiad athletig gorau posibl	<p>1) Cynnal astudiaeth beilot sy'n gwerthuso effaith ymyriad cryfder a chyflyru, a gyflwynir i bobl ifanc yn eu harddegau mewn addysg gorfforol mewn ysgolion, ar gymhwysedd athletaidd a dewis canlyniadau seicogymdeithasol.</p> <p>2) Adolygu, gweithredu a gwerthuso ymyriad cryfder a chyflyru 12 wythnos mewn ysgolion uwchradd ac asesu'r effaith ar gymhwysedd athletaidd a chanlyniadau seicogymdeithasol.</p> <p>3) Cymryd rhan mewn gwaith dilynol hydredol i asesu effaith hirdymor yr ymyriad cryfder a chyflyru.</p>	Cryfder a Chyflyru Strategaeth a Gwasanaethau'r System Chwaraeon
Hybu a diogelu lles nofwyr perfformiad	<p>1) Datblygu dealltwriaeth o'r hyn y mae lles yn ei olygu mewn nofio perfformiad a nodi'r ffactorau sy'n effeithio arno.</p> <p>2) Dylunio, gweithredu a gwerthuso ymyriad lles gyda nofwyr perfformiad.</p>	Nofio Seicoleg Ffordd o Fyw yn Perfformio
Dechrau sicrhau'r perfformiad gorau posibl mewn nofio	<p>1) Dilysu'r system dadansoddiad nemo, gan ddechrau'n benodol i amser o 15m.</p> <p>2) Nodi dilysrwydd ac effaith amser o 15m ar berfformiad nofio mewn dynion a merched a gwahanol bellteroedd rasio.</p> <p>3) Datblygu ymyriadau cyn cystadlu i sicrhau'r dechrau gorau i amser o 15m.</p>	Nofio Dadansoddi Perfformiad

<p>Fframwaith bio-seico-gymdeithasol ar gyfer deall datblygiad pobl ifanc yn eu harddgeau drwy ac mewn chwaraeon</p>	<p>1) Adolygiad o lenyddiaeth sy'n ymwneud â datblygiad bioseicogymdeithasol mewn a thrwy chwaraeon.</p> <p>2) Addysg hyfforddwyr sy'n ymwneud â datblygiad bioseicogymdeithasol pobl ifanc yn eu harddgeau a sut gellir integreiddio egwyddorion sy'n gysylltiedig â'r model hwn mewn ymarfer hyfforddi.</p>	<p>Addysgu Hyfforddwyr, Seicoleg</p>
<p>Datblygu adnoddau sgrinio seicoleg</p>	<p>1) Creu fframwaith adnoddau seicolegol i'w ddefnyddio mewn gweithdrefnau gweithredu safonol ac asesiadau effaith, a phoblogi'r fframwaith hwn gydag adnoddau seicoleg chwaraeon wedi'u dilysu.</p> <p>2) Datblygu cronfa ddata a dangosfwrdd ar gyfer cynhyrchu a rhannu adroddiadau.</p>	<p>Seicoleg</p>
<p>Sut i arwain atebion data sgrinio ymddygiad seicoleg awtomatig</p>	<p>1) Ymestyn y prosiect 'Ymddygiadau Buddugol' blaenorol drwy greu fersiwn templed gwag/enghreifftiol o'r adnodd hwn.</p> <p>2) Datblygu canllaw defnyddiwr sy'n rhoi gwybodaeth am sut i olygu'r adnodd i sicrhau bod ymarferwyr yn gallu addasu hyn yn llawn yn seiliedig ar anghenion penodol eu camp.</p>	<p>Seicoleg</p>
<p>Dyraniad gwasanaeth ymarferwr casglu a rheoli data</p>	<p>1) Datblygu dangosfwrdd (fyrdau) prototeip i graffu ar y data sy'n ymwneud â dyrannu gwasanaethau ymarferwr ar gyfer gwahanol gynulleidfaeod a'u troi'n weledol.</p>	<p>Pob disgyblaeth a champ</p>
<p>Effaith cylch y mislif ar ymarferwr a hyfforddwyr gwyddoniaeth chwaraeon benywaidd</p>	<p>1) Archwilio barn a phrofiadau hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon benywaidd o gylch y mislif.</p>	<p>Pob disgyblaeth a champ (e.e. rhwyfo a thriathlon)</p>
<p>Strategaethau rheoli maeth ar gyfer cylch y mislif</p>	<p>1) Adolygiad systematig o ychwanegion nad ydynt yn rhai fferyllol i reoli symptomau mislif.</p>	<p>Pob camp</p>
<p>Arolwg ysgolion cylch y mislif</p>	<p>1) Arolwg ledled y DU wedi'i anelu at bob athro, i fesur addysg cylch y mislif a ddarperir mewn ysgolion.</p>	<p>Pob camp</p>

Risg o anaf ac adolygiad cylch y mislif	1) Adolygiad llenyddiaeth o'r risg bosibl o anafiadau sy'n gysylltiedig â gwahanol gamau cylch y mislif mewn athletwyr benywaidd.	Pob camp Ffisiotherapi
Amlygrwydd a rheolaeth RED-S	1) Cwblhau dadansoddiad eilaidd o ddata a gasglwyd o adnodd sgrinio meddygol a sefydlwyd yn ddiweddar a weithredwyd gan ymarferwyr meddygol Chwaraeon Cymru, er mwyn nodi unrhyw achosion penodol o symptomau RED-S mewn athletwyr. 2) Os tynnir sylw at symptomau RED-S neu os ydynt yn amlwg yn y data bydd y prosiect yn ymchwilio i sut i reoli'r rhain, gan awgrymu pa adnoddau a phrotocolau sydd eu hangen.	Pob camp (e.e. athletau a gymnasteg) Meddygol Maeth Ffisioleg
Adnabod newid ystyrion a gwerth chweil mewn canlyniadau DXA	1) Archwilio beth yw trefn protocol cyn-DXA Chwaraeon Cymru? e.e. ymprydio, gorffwys, hydradu? 2) Nodi beth yw'r metrigau dibynadwy a defnyddiol o DXA sy'n tynnu sylw at newid a fydd yn ystyrion ar gyfer chwaraeon? 3) Archwilio beth sy'n cyfrif fel newid ystyrion yn y sgan DXA ar gyfer cyfansoddiad y corff (a BMD)? 4) Ystyried sut mae oedran, pwysau a chwaraeon yn dylanwadu ar y canlyniadau? 5) Nodi pa ddadansoddiad fydd yn rhoi'r newidiadau mwyaf hyderus mewn niferoedd DXA?	Pob camp (e.e. bocsi) Meddygol Maeth
Datblygiad proffesiynol parhaus hyfforddwy	Deall a hwyluso cyfleoedd i ddatblygu'n barhaus drwy ddulliau cymdeithasol o ddysgu (e.e. cymunedau ymarfer).	Pob camp
Datblygu adnoddau monitro gymnasteg a lles	1) Creu adnodd monitro i asesu metrigau cyn-hyfforddi goddrychol a gwrthrychol yn ogystal â baich hyfforddi sy'n benodol i gymnasteg.	Gymnasteg Meddygol Ffisioleg Cryfder a Chyflyru
Dychwelyd i hyfforddi ar ôl seibiant gorfodol	1) Cynorthwyo athletwyr, hyfforddwy a staff cymorth i gynllunio'n ddiogel eu dychweliad i hyfforddiant llawn a lleihau'r posibilrwydd o gollu amser yn y dyfodol.	Pob camp Meddygol Ffisioleg

SYLW I'R PROSIECTAU:

1. GALLUOGI POBL I FFYNNU MEWN AMGYLCHEDDAU PERFFORMIO

Canfranwyr y Prosiect:

Deirdre Angella (Arweinydd Datblygu Hyfforddwy'r Perfformiad Chwaraeon Cymru); Dr Hamish Cox (Cyswilt Ymchwil WIPS), Dr Camilla Knight (Arweinydd Ymchwil Chwaraeon Ieuenctid WIPS), Cath Shearer (Arweinydd Profiad Athletwyr a Chyfranogwyr Chwaraeon Cymru) a Dr Dave Shearer (Arweinydd Seicoleg Perfformiad WIPS).

Amcanion

Roedd strategaeth newydd Chwaraeon Cymru yn canolbwyntio ar "Alluogi Chwaraeon yng Nghymru i Ffynnu". Oherwydd y ffocws newydd hwn, roedd y timau seicoleg a ffordd o fyw yn perfformio yn Athrofa Chwaraeon Cymru yn cael eu hysgogi i sicrhau eu bod yn cyfrannu at y strategaeth newydd hon mewn ffordd ragweithiol.

Felly, amcanion y prosiect hwn oedd, i) cwblhau adolygiad trylwyr o'r llenyddiaeth seicoleg bresennol am ffynnu, ii) creu datganiad sefyllfa, a iii) diffinio sut byddai hyn yn cael ei ddefnyddio i sbarduno arfer y tim seicoleg a ffordd o fyw yn perfformio yn eu hymwneud ag athletwyr, hyfforddwy'r a chyrrff rheoli chwaraeon.



Canlyniadau

Mae'r llenyddiaeth am ffynnu yn gymhleth, gan ei bod yn debyg i lu o nodweddion seicolegol eraill (e.e., gwydnwch). Felly, datblygwyd diffiniad gweithredol cychwynnol o'r llenyddiaeth y gellid ei fapio i rai o nodweddion allweddol strategaeth Chwaraeon Cymru. Gwnaethom gydblythu'r diffiniad gweithredol hwn â'r hyn sy'n hysbys ar hyn o bryd am yr 'amgylcheddau datblygu talent' gorau i roi barn ar sut gallai'r tim ymarferwyr ymgorffori prif egwyddorion ffynnu yn eu hymarfer, a chefnogi athletwyr drwy eu llwybr datblygu.

Effaith

Buom yn gweithio gyda'r tim seicoleg a ffordd o fyw yn perfformio i ddatblygu cynllun gweithredol ar gyfer sut byddent yn cefnogi datblygiad ffynnu drwy'r llwybrau datblygu. Roedd hyn yn cynnwys rhai egwyddorion gwaith cyffredinol (e.e., hyrwyddo datblygiad cyfannol) a dulliau penodol o weithio gyda'r athletwr (e.e., edrych ar gyfleoedd gyrfa ddeuol) a'r gamp (e.e., datblygu prosesau croesawu a gadael). Wedyn defnyddiwyd y datganiad sefyllfa mewn trafodaeth ehangach ar draws Chwaraeon Cymru mewn perthynas â strategaeth ehangach Chwaraeon Cymru.

2. LLESIANT AC IECHYD MEDDWL ATHLETWYR, HYFFORDDWYR A GWYDDONIAETH CHWARAEON

Cyfranwyr y Prosiect:

Georgia Brown (Myfyriwr PhD Prifysgol Abertawe), Dr Paul Gorczynski (Prifysgol Portsmouth), Dan Grimstead (Arweinydd Tim Clinigol Chwaraeon Cymru), Felicity Hares (Arweinydd Datblygu Gweithlu Strategol Chwaraeon Cymru), Dr Denise Hill (Arweinydd Iechyd a Lles Athletwyr WIPS), Louise Jones (Uwch Seicolegydd Chwaraeon, Chwaraeon Cymru), Dr Camilla Knight (Arweinydd Ymchwil Chwaraeon Ieuenticid WIPS), Dr Mike Mellick (Prifysgol Metropolitan Caerdydd), a Cath Shearer (Arweinydd Profiad Athletwyr a Chyfranogwyr Chwaraeon Cymru)

Amcanion

Fel ymateb i'r Adolygiad Dyletswydd o Ofal (2017) a Deddf Cenedlaethau'r Dyfodol (Cymru) (2015), nod y prosiect yw: i) edrych ar y ffactorau sy'n dylanwadu (yn gadarnhaol ac yn negyddol) ar les ac iechyd meddwl athletwyr, hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon ar draws chwaraeon perfformiad Cymru; ii) dyfeisio, gweithredu a gwerthuso ymriadau pwrpasol sy'n seiliedig ar dystiolaeth a all gynnal/gwella lles ac iechyd meddwl athletwyr, hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon ym mhob camp sy'n cymryd rhan.



Canlyniadau

Mae athletwyr, hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon o'r chwaraeon yng Nghymru sy'n cymryd rhan wedi cwblhau arolwg ar-lein i nodi lefelau lles, iechyd meddwl a llythrennedd iechyd meddwl. Yn ogystal, mae sampl o athletwyr, hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon o bedair camp wedi cwblhau cyfweiliadau unigol i drafod y ffactorau sy'n dylanwadu (yn gadarnhaol ac yn negyddol) ar les ac iechyd eu meddwl.

Effaith

Bydd y canfyddiadau'n cael eu dosbarthu'n uniongyrchol i'r chwaraeon sy'n cymryd rhan ac aelodau allweddol tîm arwain Chwaraeon Cymru (yr Athrofa), a byddant yn sail i ymriadau sy'n benodol i chwaraeon ac yn seiliedig ar dystiolaeth sy'n ceisio gwella lles ac iechyd meddwl yr athletwyr, yr hyfforddwyr a'r ymarferwyr gwyddoniaeth chwaraeon. At hynny, ar gyfer chwaraeon dethol (jwdo a beicio), bydd yr ymyriad yn cael ei weithredu, ei ymgorffori a'i werthuso dros flwyddyn, a bydd ei effeithiolrwydd yn cael ei gyfleu i'r gamp ac i Chwaraeon Cymru. O'r herwydd, yr effaith gyffredinol a ragwelir yw darparu argymhellion ac ymriadau pwrpasol y gall chwaraeon a Chwaraeon Cymru eu defnyddio i gynnal / gwella lles ac iechyd meddwl athletwyr, hyfforddwyr ac ymarferwyr gwyddoniaeth chwaraeon sy'n ymwneud â chwaraeon perfformiad yng Nghymru.

3. ASESU EFFEITHIOLRWYDD ADDYSG HYFFORDDWYR A DDARPERIR AM GYLCH Y MISLIF

Cyfranwyr y Prosiect:

Deirdre Angella (Arweinydd Datblygu Hyfforddwyr Perfformiad Chwaraeon Cymru), Dr Natalie Brown (Cynorthwydd Ymchwil WIPS), Dr Brendan Cropley (Arweinydd Gwyddoniaeth Hyfforddi WIPS) a Dr Camilla Knight (Arweinydd Ymchwil Chwaraeon Ieuenctid WIPS).

Amcanion

Yn dilyn cyfweiliadau gydag athletwyr benywaidd elitaidd, sgyrsiau gyda hyfforddwyr a gwybodaeth gan chwaraeon, daeth yn amlwg mai prin oedd yr addysg a'r adnoddau oedd ar gael i hyfforddwyr, i gynyddu eu gwybodaeth ac felly eu hyder yn ymwneud â chylch y mislif a'r effaith ar iechyd a pherfformiad athletwyr benywaidd. Nod y prosiect yw 1) creu addysg ac adnoddau i hyfforddwyr mewn 5 maes sy'n ymwneud â chylch y mislif a 2) asesu effeithiolrwydd yr addysg a'r adnoddau ar gyfer cynyddu gwybodaeth a hyder wrth siarad am gylch y mislif.



Canlyniadau

Hyd yma, mae pum gweithdy wedi'u datblygu gydag adnoddau ychwanegol sydd bellach yn cael eu cyflwyno i chwaraeon yng Nghymru ac yn ehangu i blatfform hyfforddi ar-lein UK Coaching i rannu hyn yn ehangach. Llenwodd hyfforddwyr holiaduron cyn, ar ôl a hefyd 6 a 12 mis ar ôl y gweithdy i bennu'r effaith ar eu gwybodaeth am gylch y mislif, eu hyder i siarad ac i ddangos tystiolaeth o newidiadau i ymarfer o ganlyniad i ddysgu ac ymgysylltu ar draws y gweithdai. Bydd casglu data am effeithiolrwydd y gweithdai a'r adnoddau hyfforddi'n caniatáu gwelliant parhaus, ynghyd â nodi dulliau pellach sydd eu hangen i greu newid mewn canfyddiadau a dulliau gweithredu sy'n gysylltiedig â chylch y mislif mewn chwaraeon.

Effaith

Mae'r addysg a'r adnoddau sy'n cael eu creu am y maes pwnc hwn yn cael eu dosbarthu a'u rhannu'n uniongyrchol gyda hyfforddwyr fel sail i arferion ac i'w newid, gan gefnogi athletwyr benywaidd yn well ar gyfer iechyd a pherfformiad mewn chwaraeon. Er bod hyfforddwyr o sawl camp yng Nghymru wedi cael cyfle i ymgysylltu, mae hyn yn cael ei ehangu i'r DU gyfan i gael effaith bellach ar hyfforddwyr a'u cyrraedd, ac fel sail i'w harferion.

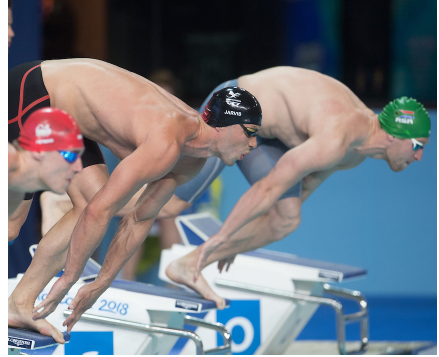
4. DEFNYDDIO MASGIAU WRTH YMARFER AR GYFER UNIGOLION IACH (COVID-19)

Cyfranwyr y Prosiect:

Dr Dan Cunningham (Cynorthwydd Ymchwil WIPS), Brian Hughes (Ffisiolegydd Arweiniol Chwaraeon Cymru), Dr Rhodri Martin (Arweinydd Meddygaeth WIPS), a Dan Grimstead (Arweinydd Tîm Clinigol Chwaraeon Cymru).

Amcanion

Gyda chwaraeon elitaidd dan do yn dychwelyd i hyfforddi, ni fydd rhai chwaraeon yn gallu cadw pellter cymdeithasol yn eu hamgylchedd chwaraeon. Mae timau meddygol Chwaraeon Cymru wedi gofyn, os na all chwaraeon gadw pellter cymdeithasol, eu bod yn gwisgo gorchuddion/masgiau wyneb wrth hyfforddi. Bydd y prosiect hwn yn amlinellu manteision a risgiau posibl gwisgo masg wyneb yn ystod ymarfer corff mewn athletwyr iach.



Canlyniadau

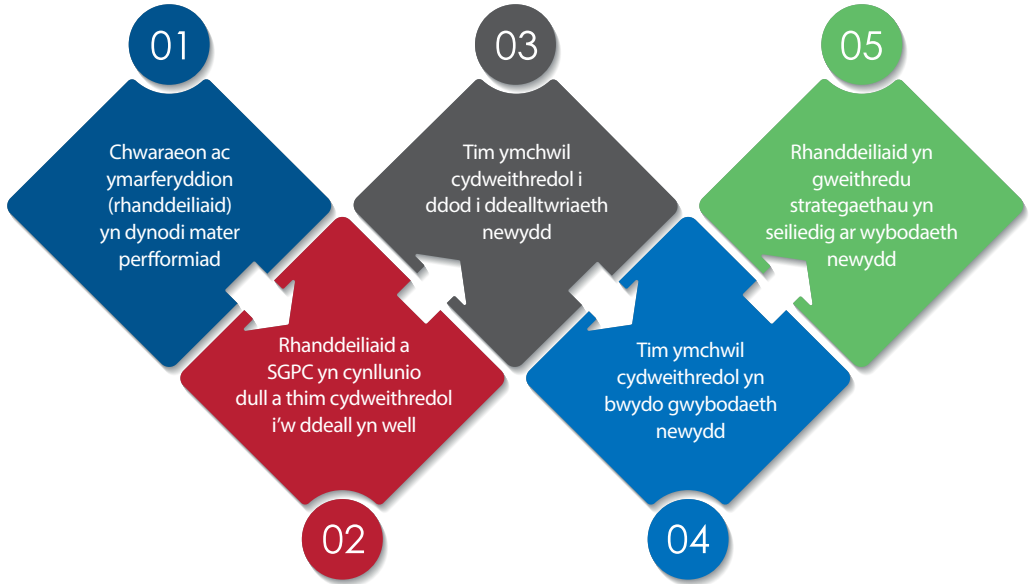
I ddechrau, cafwyd adolygiad o'r llynyddiaeth sydd ar gael am ddefnyddio masgiau i leihau trosglwyddo feirysau i gynorthwyo gyda chefnogaeth yr athletwr a'r hyfforddwr. Yn ail, cynhaliwyd adolygiad o lenyddiaeth yn ymchwil i effaith seicolegol a ffisiolegol ymarfer corff wrth wisgo masgiau/gorchuddion wyneb. Cafodd yr wybodaeth hon ei chrynhoi mewn graffeg gwybodaeth cyfeillgar i athletwyr/hyfforddwr.

Effaith

Cafodd y canfyddiadau eu dosbarthu'n uniongyrchol i'r chwaraeon perthnasol drwy dîm meddygol Chwaraeon Cymru. Darparodd y graffeg gwybodaeth dystiolaeth ar gyfer defnyddio masgiau yn yr amgylchedd chwaraeon ond hefyd darparodd wybodaeth am sut byddai hyn yn debygol o effeithio ar yr athletwyr yn gorfforol ac yn ganfyddiadol. Roedd yr wybodaeth hon yn caniatáu i hyfforddwr ac ymarferwyr addasu unrhyw sesynau yn seiliedig ar y gwahaniaethau disgwyliedig mewn canfyddiad o ymdrech a brofi gan yr athletwr.



SUT MAE PROSIETAU SGPC YN GWEITHIO



DIOLCH I AELODAU EIN GRŴP LLYWIO YMCHWIL AM EU CYFRANIADAU

Aelodau newydd:

Dr Neil Bezodis (Arweinydd Biomecaneg),
Prifysgol Abertawe

Yr Athro Brendan Cropley (Arweinydd Gwyddoniaeth Hyfforddi), Prifysgol De Cymru

Dr Ryan Chambers (Cynrychiolydd URC),
Undeb Rygbi Cymru

Dr Ruth Fairchild (Cydarweinydd Maeth),
Prifysgol Metropolitan Caerdydd

Dr Vicky Gottwald (Arweinydd Adnabod a Throsglwyddo Talent), Prifysgol Bangor

Dr Denise Hill (Cydarweinydd Iechyd a Lles Athletwyr), Prifysgol Abertawe

Dr Ambikesh Jayal (Arweinydd Gwyddoniaeth Data), Prifysgol Metropolitan Caerdydd

Dr Kelly Mackintosh (Cydarweinydd Iechyd a Lles Athletwyr), Prifysgol Abertawe

Dr Rhodri Martin (Arweinydd Meddygaeth), Chwaraeon Cymru

Dr Tom Poulson (Arweinydd Chwaraeon Anabled), Athrofa Chwaraeon Lloegr

Dr Liba Sheeran (Ffisiotherapi Chwaraeon) Prifysgol Caerdydd

Dr Mark Waldron (Arweinydd Ffisioleg Perfformiad), Prifysgol Abertawe

Aelodau'n parhau:

Dr Pete Brown (Cynrychiolydd EIS),
Athrofa Chwaraeon Lloegr

Dr Malcolm Fairweather (Cynrychiolydd SIS), Athrofa Chwaraeon Sportscotland

Dr Declan Gamble (Cynrychiolydd SNISI),
Athrofa Chwaraeon Gogledd Iwerddon

Brian Hughes (Cydgadeirydd RSG),
Chwaraeon Cymru

Yr Athro Liam Kilduff (Cydgadeirydd RSG),
Prifysgol Abertawe

Dr Camilla Knight (Arweinydd Chwaraeon Ieuenctid), Prifysgol Abertawe

David Lasini (Cynrychiolydd SINI),
Athrofa Chwaraeon Gogledd Iwerddon

Dr Thomas Love (Cydarweinydd Maeth),
Prifysgol Abertawe

Yr Athro Jon Oliver (Arweinydd Cryfder a Chyflyru), Prifysgol Metropolitan Caerdydd

Dr Sam Oliver (Arweinydd Ffisioleg Eithafol), Prifysgol Bangor

Yr Athro Dave Shearer (Arweinydd Seicoleg), Prifysgol De Cymru

A'r Cysylltiadau Ymchwil eraill yn WIPS (sy'n gwneud yr holl waith caled ar y prosiectau!):

- Dr Natalie Brown
- Dr Hamish Cox
- Dr Dan Cunningham

Os hoffech chi gysylltu ag unrhyw rai o aelodau'r grŵp llywio ymchwil neu gael gwybod mwy am eu hymchwil, cysylltwch â ni ar: WIPS@swansea.ac.uk a byddwn yn fwy na pharod i'ch rhoi chi mewn cysylltiad.



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