

<p>Institution: The University of Wolverhampton</p>
<p>Unit of Assessment: UOA 26: Sports-Related Studies</p>
<p>a. Context</p> <p>The Research Centre for Sport, Exercise and Performance (RCSEP) was established in 2005 and is located within the School of Sport, Performing Arts and Leisure. RCSEP studies human behaviour and well-being. The main user groups of the research include sportspeople, dancers, coaches, sports officials and also include targeted populations where exercise offers potential benefits to health and wellbeing. Types of impact pursued by RCSEP include:</p> <p>Impacts on public policies and services include i) adoption of exercise training in clinical practice, and ii) development of a referral scheme for patients with chronic inflammation and iii) economic/commercial impact that has benefited established organisations (e.g., Action Heart, UK's largest cardiac rehabilitation centre). RCSEP's research on the effects of passive smoking has been incorporated in educational literature produced by health and policy-making organisations including the WHO's Collaborating Centre for Housing and Health and in a 2012 British Heart Foundation policy statement.</p> <p>Impacts on health and welfare comprise contributions to changes in clinical practice through guidelines published by the European League Against Rheumatism and the Action on Smoking and Health 2011 report on second hand smoke. As part of the Emotion Regulation of Others and Self (EROS) project, RCSEP was included in the Research Councils UK report for the House of Lords Science and Technology Committee on Behaviour Change.</p> <p>Impacts on practitioners and professional services include working with a number of organisations to bring about change in policy, practice and performance indices. For example RCSEP has worked with the National Health Service on a project intended to improve workforce health and wellbeing. Initiatives associated with this collaboration included the review and revision of metrics used to monitor health and wellbeing among employees, and the development and provision of e-learning resources for staff. A further illustrative example is the development of two different exercise referral schemes in collaboration with Action Heart for patients with cancer and arthritis, respectively. A second example is the successful consultancy with British Athletics lead to writing 'Elevating Athletics', a resource used in primary schools in the UK. RCSEP has also worked with elite ballet companies on projects to improve the health and well-being of their dancers. This has led to a 50% reduction of chronic injuries within one company, the introduction of annual vitamin D screening in three companies and the use of supplemental training to decrease injury and improve performance artistry in numerous dance companies (both ballet and contemporary) and vocational dance schools in the UK and Europe. These have been disseminated to the wider dancing population through professional outlets such as the International Association of Dance Medicine and Science (IADMS) and Dance UK News. In addition, RCSEP research has informed the production of training and practice guidelines for use in professional practice, through numerous communications prepared for practice outlets such as Peak Performance and The Sport and Exercise Scientist.</p> <p>Impacts arising from public engagement activities involves initiatives that have impacted upon public awareness and opportunities. This includes media coverage resulting from 2012 Olympics. For example, the BBC Lab UK project 'performing under pressure' was developed to coincide with the 2012 Olympic Games and was launched on BBC's 'the One Show'. Professors Lane and Nevill both contributed to national and international media during the Olympic year. Nevill's article predicting GB's Olympic medal success received national media acclaim.</p> <p>Impact from consultancy work as a statistician to a range of organisations; examples include work undertaken by Professor Nevill with the Professional Game Match Officials Limited with a view to increasing the consistency of decision-making under pressure. In addition, consultancy work with Chelsea Football Club assessed injury risk and helped support the development of strategies to increase playing time. Professor Nevill was also employed on the Surgeon General's Armed Forces feeding project led by the Institute of Naval Medicine. This project addressed the Ministry of Defence's tri-service nutrition and feeding policy for service personnel in the UK and on operations abroad.</p>
<p>b. Approach to impact</p> <p>Our approach to impact of research takes the following four forms:</p> <p>Raising public awareness; RCSEP disseminate research from peer-review publications to mass media outlets with a view to raising public awareness and engagement. RCSEP have a proactive</p>

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strategy whereby we work with the university marketing department to produce press releases of research findings. We coincide media engagement with high profile public events such as the London Marathon, Olympic Games, soccer World Cup and the Premier league season. This approach helps to ensure that we capitalise on peaks in public interest.

The ability to work proactively and reactively underlies RCSEP's media work. Proactive work includes giving press releases on the findings of recent studies, and producing information videos freely available on YouTube to allow greater public access to research findings and implications. RCSEP also work reactively with the media, which can involve applying theory to practice so that members of the general public gain insight to a specific phenomenon through the lens of a sport and exercise scientist.

Engaging professional organisations; Based on user's knowledge and evaluation of our research, individuals or teams of researchers are contracted by an organisation to conduct research into a specific issue. In addition, RCSEP researchers actively pursue collaboration with organisations to facilitate research with end user utility. The outcomes of the research thus feed directly into the user groups. For example, RCSEP worked with cardiac risk patient groups in conjunction with the NHS programme Action Heart to secure Knowledge Exchange and Enterprise Network (KEEN) funding; research findings from this work focused on understanding exercise-related behaviours and with the intention to optimise exercise participation. RCSEP has also received funding-in-kind, for example, Audiofuel gave free product access to participants as part of a project intended to examine the effects of music on running performance. Lumie lights in conjunction with the British Swimming Association gave free products to British swimming squad members to assess the effects of light therapy on mood. The latter two examples illustrate projects that afforded the opportunity of access to resources intended to enhance personal performance among target populations. This allowed an evaluation of product efficiency, and thus where appropriate, contributed to product refinement.

Research informed Continuing Professional Development; RCSEP research is translated into practice through research-informed Continuous Professional Development (CPD) and professional body links. RCSEP deliver a range of professional-endorsed workshops where practitioners translate research-underpinned materials into their own professional practice. For example, Professor Lane presented a British Cycling Federation CPD workshop, Devonport and Lane presented a CPD event for England Netball Umpires, and following invitation presented to Sports Officials UK resulting in an applied project examining emotions and decision making among Lacrosse officials at the 2012 Lacrosse world cup. Based on research by Professors Koutedakis and Wyon, Professor Wyon was asked to co-author the Safe in Dance Qualification, an internationally recognised safe practice and teaching qualification for the International Association for Dance Medicine and Science. RCSEP research has led to staff delivering dance teacher CPD courses which have been adopted by dance teacher associations worldwide, such as Imperial Society for the Teachers of Dance, Royal Academy of Dance, British Ballet Organisation and the Netherland Dance Conservatoire group. Professor Wyon leads the CPD courses delivered in the Netherlands, following his appointment as a Visiting Professor at the Dutch Institute of Arts with the remit of developing new training methodologies for contemporary dancers. These conservatoire graduates demonstrate the best student employment statistics.

Research informing policy and practice; RCSEP work with users to help transfer findings into practice. For example, the ESRC funded project 'Emotion Regulation of Others and Self' (EROS) along with Knowing Sport hosted a workshop aimed at helping runners improve performance and manage unwanted emotions experienced before, during and after running. This involved disseminating findings from a RCSEP project run in conjunction with Runner's World magazine and Audiofuel. This workshop introduced and examined a range of strategies intended to improve the practices of runners and enhance running performance. An illustration of research that has informed both policy and practice is work undertaken with Birmingham Royal Ballet. This work intended to reduce the incidence of injury amongst dancers resulted in a 50% decrease in chronic injuries through rehabilitation and preventative interventions, vitamin D supplementation and the purchase of a travelling stage. This work contributed to reducing the company's medical costs by approximately a third. The relationship with Birmingham Royal Ballet continues with a new project focused on reducing the risk of osteoporosis in dancers.

c. Strategy and plans

Our impact strategy is based on raising awareness of research findings from peer reviewed studies

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and exploring ways of transferring research into practice with end-users. These include;

Practitioner engagement. RCSEP involve practitioners at different stages of the research cycle. This could be during the planning stage of a new project (e.g. BBC Lab UK) or the data analysis stage (e.g. the Ministry of Defence's nutrition and feeding policy project). RCSEP relationship with Birmingham Royal Ballet (BRB) and English National Ballet (ENB) initially started with the provision of physiological support and then has developed into a 10-year+ relationship providing evidence-based interventions to improve performance and reduce injury incidence within the companies. This has led to the development of novel rehabilitation strategies, a touring stage for BRB and a winter vitamin D supplementation policy (implemented in companies across Europe).

Engagement with beneficiaries. RCSEP examine the impact of research on beneficiaries by obtaining feedback through a variety of means. For instance, as detailed in case study 1 (ICS1), RCSEP ran a workshop on emotion regulation for runners. This presented an opportunity to deliver interventions developed through RCSEP research obtaining immediate experiential feedback. In case study 2 (ICS2), we present work with cardiac risk patient groups undertaken in conjunction with the NHS organisation Action Heart, the largest cardiac rehabilitation centre in the UK. This has led to the understanding of sedentary behaviours and helped the development of more patient-centred exercise programmes.

Raising awareness and usage. RCSEP aim to raise awareness of research findings through publications in practitioner outlets and mass media exposure. This has been achieved in conjunction with the University's Marketing and Communications department where data indicate that over £1 million of Advertising Value Equivalence (AVE) have been accrued. We also monitor and assess the usage of self-help materials. This includes a) worldwide exposure via the BBC Lab UK, with over 75,000 people participating, and b) self-help materials provided via the Virgin London Marathon website, Dance UK, and International Association of Dance Medicine.

Continuing professional development and policy development. RCSEP research has informed policy developments in a range of sport and health organisations. Examples include the implementation of vitamin D screening policies at professional dance companies in the UK and abroad, and the utilisation of supplemental physical fitness training within these companies as a means of reducing injury occurrence. RCSEP also provide research-informed Continuous Professional Development (CPD). For example, the aforementioned policy changes form an integral part of dance teacher training qualifications and CPD courses (e.g. Fellowship qualification for the Imperial Society for Teachers of Dance), thereby changing the way future dance professionals are trained.

The intention is to sustain and support impact through the continuation of these four strategies. RCSEP emphasise the importance of developing and building strong and long lasting relationships with key stakeholders. RCSEP engage users of the research at the earliest stage possible in the lifecycle of the research process.

d. Relationship to case studies

RCSEP's approach to delivering impact is built upon widespread collaborative networks with practitioners, professional organisations, and end-user groups. The submitted case studies each share the common approach of working concurrently to attain high-impact publications alongside practitioner and user engagement. In demonstrating impact, each case study exemplifies relationships with end-users, professional organisations, and media outlets.

The first case study (ICS1) focuses on emotions, emotion regulation, and performance. It illustrates impact on professional practice by detailing the development of self-help interventions for use by practitioners and professionals, and also by the development of measures to enable rigorous testing of intervention work. In order to illustrate processes underpinning impact, the case study features the BBC Lab UK project and self-help resources developed for use by runners.

The second case study (ICS2) focuses on the development of novel research materials designed to improve quality of life and performance in different populations, including patients with chronic diseases, passive smokers and dancers. Impact is illustrated by the uptake of research by national and international health and policy making organisations and by the University of Wolverhampton's lead role in the establishment of the National Institute of Dance Medicine and Science. The Institute has informed NHS service provision with a specialist dance medicine clinic at the Royal National Orthopaedic Hospital.