

The Third International Conference on Physical Employment Standards: Editorial

Gemma S. Milligan^{1*}, Sam D. Blacker², Pieter E.H. Brown³,
Andrew Siddall²

*Corresponding author

¹University of Portsmouth, Spinnaker Building

²University of Chichester, College Lane, Chichester PO19 6PE

³Institute of Naval Medicine, Crescent Road, Gosport, PO12
2DL

The Third International Physical Employment Standards (PES) Conference was held in Portsmouth, UK from the 17th to 19th July 2018. The three-day conference was attended by researchers, practitioners and policy-makers working within the military, emergency services and industry sectors from 16 nations. The conference built upon previous meetings in Canberra (Australia, 2012) and Canmore (Canada, 2015). Presentations and discussions covered methodological considerations and case-study examples for the development and implementation of PES, providing the basis to explore the potential benefits of, and challenges to, the development and utilization of PES. This special edition of *WORK* is intended to provide researchers, practitioners and policy makers with examples of current best practice when developing and using PES to inform the recruitment and retention of personnel in physically demanding occupations.

During the PES conference three keynote presentations provided anchors to the conference themes. The first, delivered by Dr Deborah Gebhardt, provided an historical overview of PES and examples of how PES had been implemented to benefit workers and organisations. The second, delivered by Dr Jace Drain,

described how both the Job Task Analysis (JTA) and PES can be used to inform physical training strategies to reduce injury and improve job performance. The third, delivered by Dr David Flower, explored the potential of PES to support workers as they age, as well as inform organizational policy and strategy on workforce management.

A total of 81 free communications were presented at the conference and the abstracts have been published in a free online open access conference booklet (ISBN: 978-1-5272-2601-2). Ten original articles have been selected from these free communications and published in this special edition of WORK. These ten papers span the topics of: conducting JTAs to quantify the physically demanding tasks performed in job roles; developing tests; setting cut-scores; evaluating pass rates; strategies for reducing sex bias in PES; considering movement competency in PES; comparing fitness levels of workers performing a similar job role; evaluating the effect of a strength and conditioning programme to improve worker physical readiness and health related consideration for PES.

Two round-table discussions were facilitated during the conference. The first round-table discussed the 'soldier first' principle, and specifically the benefits / challenges of implementing a PES that is derived from common single Service (e.g. Army) or pan-Defence (i.e. Army, Navy, Air Force) role-related tasks. The second roundtable explored the difficulty of replicating work-based environments in PES design and the associated consequences on the ecological validity of the test developed. Both round-tables provided conference delegates with an opportunity to engage in structured discussions that shared some common challenges in PES development and implementation, as well as provide suggestions for research.

The free-communication and round-table presentations provided an extensive range of examples of how PES have been developed and implemented. Three clear themes emerged:

1. A comprehensive JTA is required to underpin the development of all PES and inform the development of the criterion and predictor tests.
2. Strong engagement between researchers, practitioners, policy makers, senior management, stakeholders and employees are essential to ensure that PES are fit-for-purpose, adopted by organizations and accepted by workers.
3. PES have many benefits for the workforce and can form a central pillar to assure role-related physical performance and reduce injury incidence. This can be further enhanced by integrating wider considerations of: policy; environmental conditions; equipment and clothing; physical training and nutrition.

It is evident from the breadth of work presented at the conference and from within this special edition that the scientific discipline and evidence-based framework of PES development continues to be an important consideration in the recruitment and retention of personnel working in military, emergency service and industrial sectors. It has also demonstrated that PES should not stand alone and should be considered in a wider context of the work environment (e.g. physical training, equipment procurement, environmental conditions) to evaluate and enhance physical performance, reduce injury incidence and inform organizational processes. The International PES Conference series is instrumental in providing a platform to present and discuss occupationally relevant PES research. The next conference in the series will be hosted by Bond University, Australia, from the 25th to 27th October 2021. .