

lead to more serious health issues such as heat illness.

Differences in genitourinary anatomy, poor sanitation conditions and more challenging toileting practices, particularly during field exercises or deployment, are likely to increase the risk of urinary symptoms and infections in servicewomen. Female military personnel have also been reported to be less likely to seek medical attention for genitourinary symptoms because of limited women-specific health services and female medical staff, embarrassment and poor confidentiality.

Further research is required to more broadly investigate female pelvic health in military contexts, including the types, severity, prevalence and their coexistence in this population, the strategies used to manage these conditions in military contexts, and the impacts of female pelvic health conditions on occupational performance.

These findings provided background for the development of a survey on pelvic health for women in the Australian Defence Force. Preliminary findings from this survey will be discussed, if available, alongside the findings from published studies

We acknowledge the support of the Defence Health Foundation for this research.

### Biography

*Simone is an experienced physiotherapy practitioner-researcher with a strong clinical background in women's health, physical activity and chronic health condition management. She developed an interest in the pelvic health of female military personnel after working clinically with a number of women from her local Army barracks.*

*Simone has published eight peer-reviewed journal articles and a book chapter, and presented her findings at Australian and international conferences. She was a Menzies Foundation Scholar in the Allied Health Sciences and recently won a 'Most Outstanding Poster' prize at the World Confederation of Physical Therapy Congress (2017). Simone has recently returned to research role following a period of career interruption associated with parenthood to four children.*

Corresponding Author:

*Simone D O'Shea*

Corresponding Author's email:

*soconnor@csu.edu.au*

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## Physical Characteristics of New Zealand Army, Navy and Air Force Officer Trainees' Pre and Post 6-Week Joint Officer Induction Course (JOIC)

**Mr David Edgar**<sup>1,2</sup> Nicholas. Gill<sup>1</sup> & Matthew Driller<sup>1</sup>

<sup>1</sup> Faculty of Health, Sport and Human Performance, University of Waikato, Hamilton NZ

<sup>2</sup> New Zealand Defence Force, Wellington, New Zealand

### Abstract

**Introduction:** The physical fitness levels of recruits and officers entering the military have become a major focus for defence forces worldwide. While there is a plethora of research from other countries, there is a paucity of research focused on the physical performance of recruit and officer training in the New Zealand Defence Force. The focus of this study was to characterise the New Zealand Army, Navy & Air Force officer trainees' pre and post a 6-week joint induction course (JOIC), and enhance physical performance through a high performance mind-set.

**Methods:** 116 participants (Army; n= 75, Navy; n= 25, Air Force; n=16) were tested for physical performance pre and post 6-week JOIC. Testing consisted of a 2.4km run, upper body strength endurance (press-ups and curl-ups), body weight and Y-balance musculoskeletal screening. The Mcleans POMs perceived mood state and sleep monitoring questionnaire was administered weekly, in conjunction with actigraphy sleep watch monitoring for the duration of the course.

**Results:** At baseline, Army performed significantly better in the 2.4km run and press-ups when compared to the other services ( $p < 0.05$ ), with Navy performing significantly better in curls ups. Following the JOIC, there were significant improvements in 2.4km run time ( $676 \pm 83$  s to  $625 \pm 82$  s,  $p = 0.02$ ), press-ups ( $25 \pm 11$  reps to  $32 \pm 11$  reps,  $p = 0.04$ ) and curl-ups ( $41 \pm 21$  to  $56 \pm 38$ ,  $p = 0.01$ ). There were no significant pre to post changes in any other measures. Sleep monitoring indicated two specific groups were evident over the 6-week period; those that slept more than 6 hours and those that slept less than 6 hours per night.

**Conclusion:** Army recruits possessed superior baseline markers of physical fitness when compared to Navy and Air Force recruits. Across all services, following a 6-week JOIC, significant improvements were found for aerobic fitness, upper body strength

and core endurance. Sleep was considerably lower than the healthy accepted norm of 8 hours per night.

**Take home message:** Appropriate training program design and an enhanced performance approach is critical to ensure significant improvements across all measures of fitness following a 6-week JOIC. More sleep is likely to enhance physical performance and cognitive function.

### Biography

*David Edgar is the NZDF S&C / Performance Science SME for NZDF Performance Health Team. David has a background in both Defence and elite S&C / sport science with professional rugby and sport. Has held various head S&C positions from ITM Cup to Super Rugby, and internationally with Samoa during two rugby world cups, leading the physical performance and sports-science programs. He has also won the IRB Sevens World Series with Samoa. David has spent time working in professional rugby in Japan and continues involvement with super rugby.*

*David's current focus of work with NZDF is Enhanced Physical Performance, through a 'High Performance Mind-set', to improved general fitness and physical performance and reduces injury rates of NZDF personal. The performance health team have also been implementing a number of initiatives over the last couple of years to improve health, reduce injury, mentor PTIs and work closely with commanders to ensure new performance strategies are scientifically advanced and based on practice-based learning. David holds a Master's Degree and is currently working toward a PhD in the area of Enhanced Physical Performance and Recovery in the NZDF.*

Corresponding Author:

David Edgar

Corresponding Author's email:

david.Edgar@nzdf.mil.nz

## Physical Health of Transitioned ADF and Regular ADF members in 2015 in the Transition and Wellbeing Research Programme

**Dr Helen Kelsall**<sup>1</sup>, Dr Miranda Van Hooff<sup>2</sup>, Dr Ellie Lawrence-Wood<sup>2</sup>, Professor Alexander McFarlane<sup>2</sup>, Dr Stephanie Hodson<sup>3</sup>, COL (Reservist) Nicole Sadler<sup>4,5</sup>, Ms Helen Benassi<sup>5,6</sup>, Dr Craig Hansen<sup>2</sup>, Professor Malcolm Sim<sup>1</sup>

<sup>1</sup> Monash Centre for Occupational and Environmental Health, Department of Epidemiology and Preventive Medicine, Monash University

<sup>2</sup> Centre for Traumatic Stress Studies, University of Adelaide

<sup>3</sup> Open Arms, Department of Veterans' Affairs

<sup>4</sup> Phoenix Australia Centre for Posttraumatic Mental Health, University of Melbourne

<sup>5</sup> Rehabilitation and Psychology Branch, Joint Health Command, Department of Defence

<sup>6</sup> Australian National University

### Abstract

**Introduction:** Military service can involve exposure to physical and psychological stressors. Each year, a proportion of service men and women choose to leave or are discharged from military service. There has been little systematic research into the health and wellbeing of military personnel after they leave the services. The aim was to compare the physical health and wellbeing of Transitioned Australian Defence Force (ADF) members with Regular ADF in 2015.

**Methods:** 4326 Transitioned ADF (transitioned out of full-time regular service in the period January 2010–December 2014) (18% response rate) and 8 480 Regular 2015 ADF (42%) completed a survey questionnaire that included questions on symptoms, doctor-diagnosed medical conditions, respiratory health, service-related injuries, pain, sleep problems, lifestyle risk factors, self-perceived health and quality of life and health service use. Physical health of Transitioned ADF was examined in relation to transition status (Ex-Serving, Active Reservist, Inactive Reservist), Department of Veterans' Affairs (DVA) client status (DVA client, non-DVA client), and type of discharge (medical discharge, non-medical discharge). Data were statistically weighted to be representative of each population. Logistic regression was used to compare differences in prevalence between groups and odds ratios with 95% confidence intervals (OR, 95% CI) were reported, adjusting for possible confounding factors.