Profiling a workplace physiotherapy and rehabilitation program within a police force

Hua, M; Orr, Rob Marc; Stierli, Michael

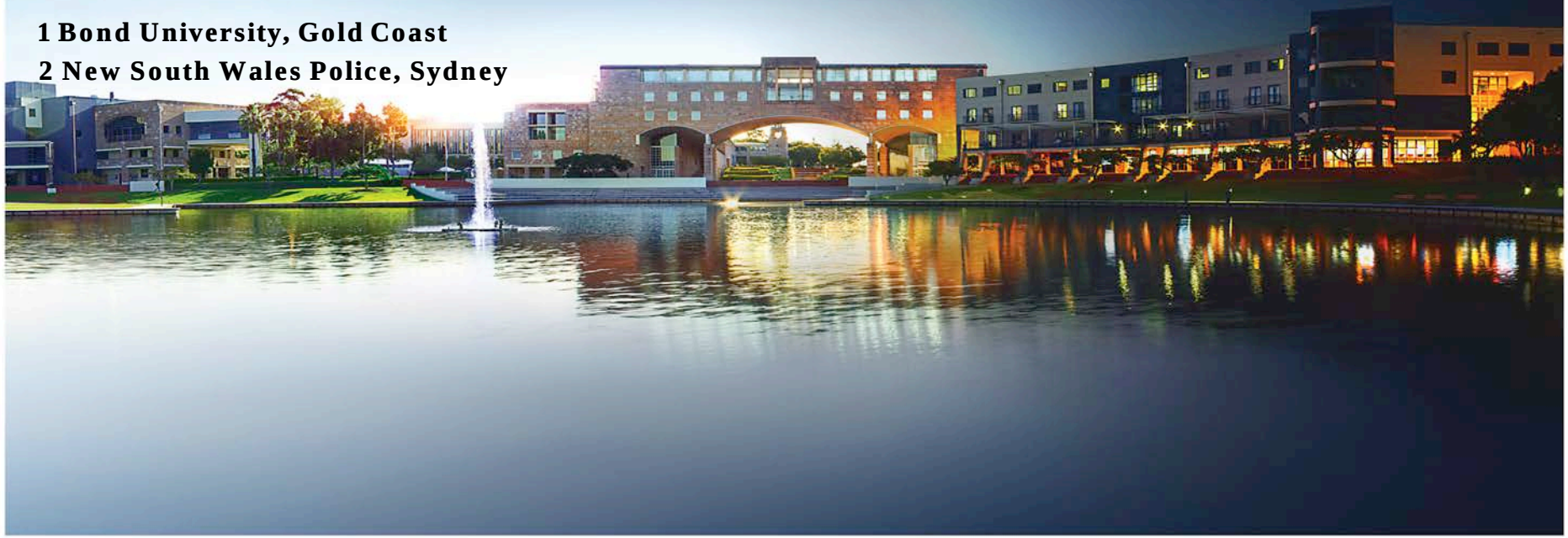
Profiling a Workplace Physiotherapy and Rehabilitation Program within a Police Force

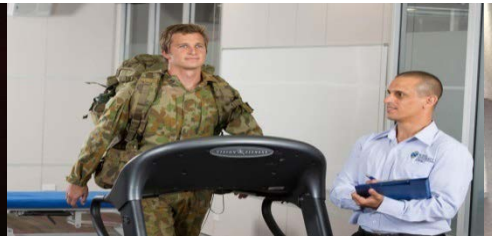
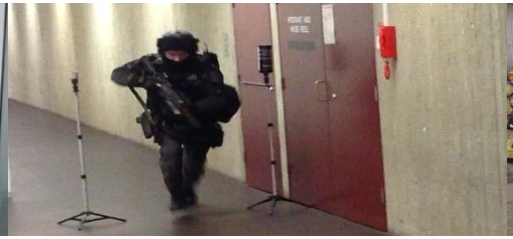
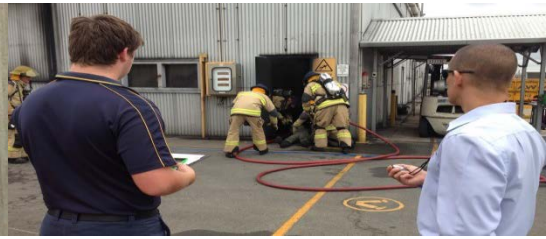
Hua M[1], Orr R[1], Stierli, M[2].

1 Bond University, Gold Coast

2 New South Wales Police, Sydney

BOND UNIVERSITY
TACTICAL RESEARCH UNIT



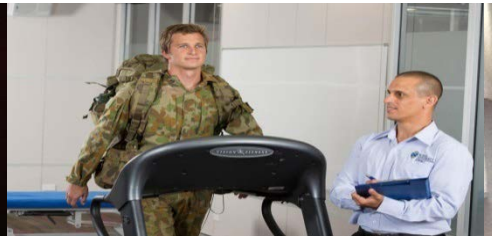
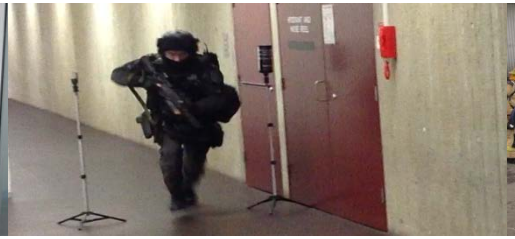
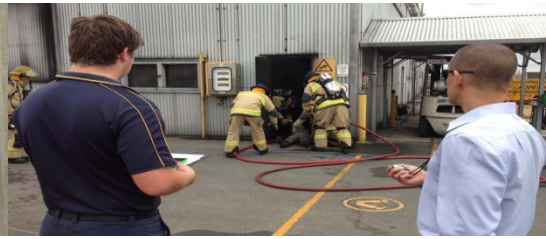





Introduction

- Initial pilot study research with NSW Police found that injured officers treated within the workplace had notably better Physical and Mental RTW scores (FMS and SF-36) and even RTW prospects

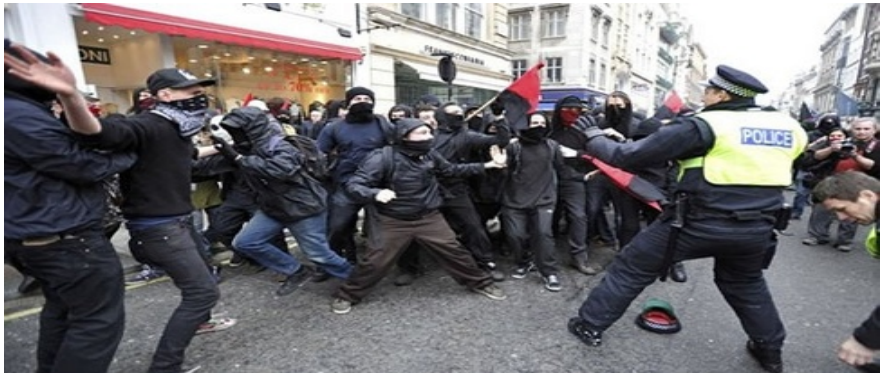
(Orr, et al., 2013)

- NSW Police implementing RECOND program

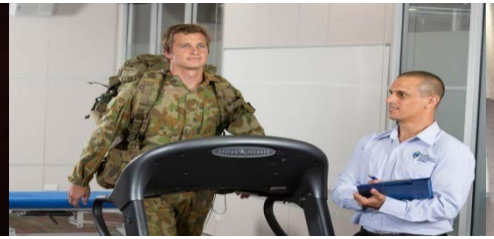
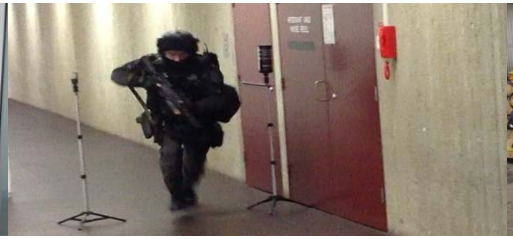





Introduction

- Aim of research:
  - Profile police attendees of a workplace physiotherapy and reconditioning program in order to guide future treatment strategies

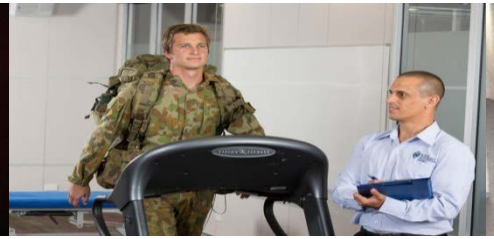
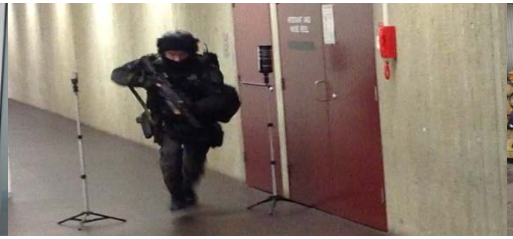


BOND UNIVERSITY
TACTICAL RESEARCH UNIT


Participants

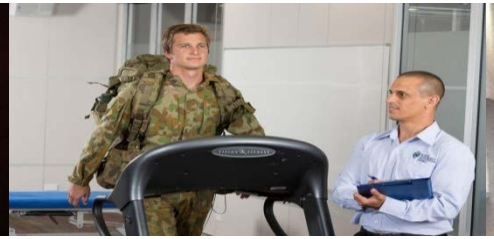
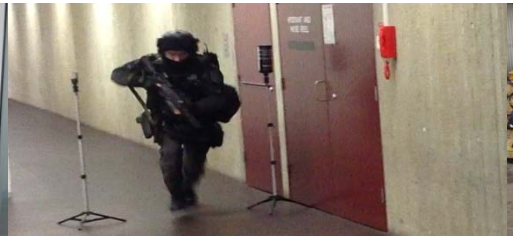
- Injured police officers attending workplace rehabilitation (August to December 2014)
  - Inclusion Criteria: Musculoskeletal injury
  - Exclusion Criteria: Illness or diagnosed mental health injury
- 30 Male / 12 Female NSW Police Force Officers
  - Male n=30: mean age 43.3 ± 9.56 years:
  - Female n=12, mean age 38.2 ± 6.39 years


Methods

1) Primary Interview
   - Type of injury (classified according to body region)
   - Gender, DOB, rank, work status & years of service
   - Use of load bearing vest (LBV), hip or thigh holster
2) Height & Weight
   - to calculate BMI
3) Nominal Roll & Attendance (Aug – Dec 14)
   - Number of treatment sessions booked/ attended


BOND UNIVERSITY
TACTICAL RESEARCH UNIT

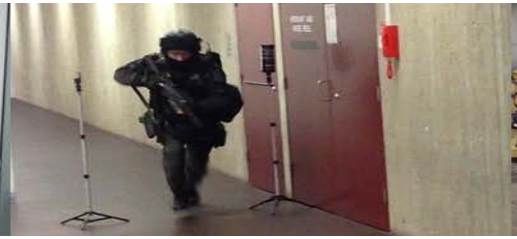
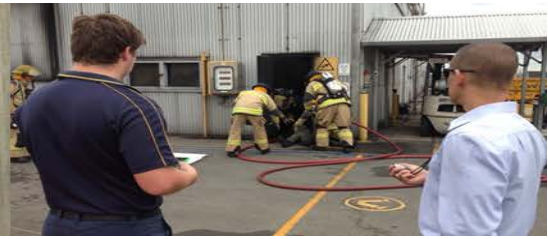





Results

- Number of Treatments attended =296/340 (87%)
- Lumbar spine injury = 40.5% (n=17); 119 Rx attended
  - Mean number of Rx attended = 7.0 ± 3.71
- Lumbar spine injury occurred across all ranks & groups for years of service
  - Highest prevalence among SGTs (29% of all Lx Sp inj.)
  - More frequent in 0-10 yrs and 21-30 yrs of service

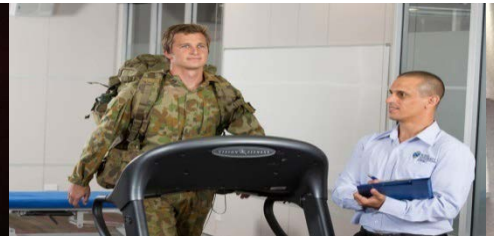
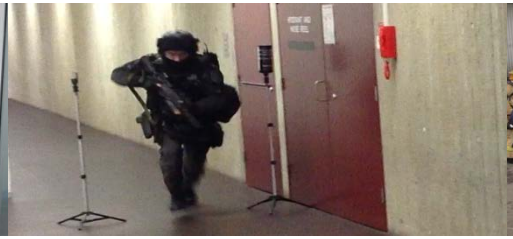
BOND UNIVERSITY
TACTICAL RESEARCH UNIT



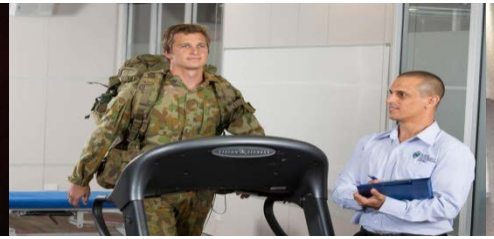
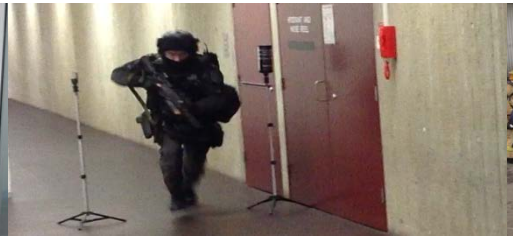
Results

- BMI:
  - 57.5% (n=23) → 25.0 – 29.9 (overweight)
- Males vs. Females:
  - ♀ > mean number of Rx attended all injuries than ♂
    (8.25 ± 5.12 vs. 6.57 ± 4.03)

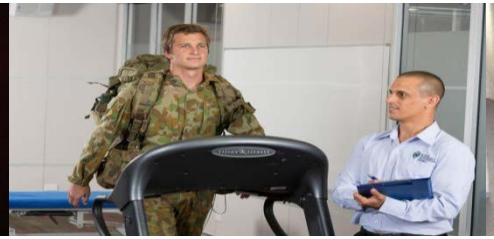
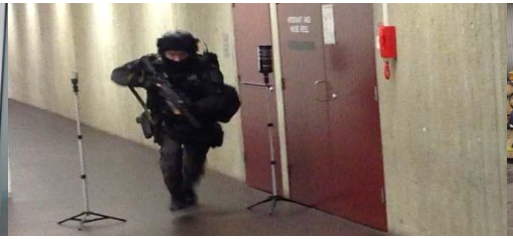

Results

- LBV:
  - 31% (n=13); No LBV: 69% (n=29)
  - Low back injury > when no LBV used vs. when LBV used (44.8% vs. 30.8%)
- Thigh Holster:
  - 35.7% (n=15); Hip Holster: 64.3% (n=27)
  - Low back injury > when hip holster used vs. when thigh holster used (44.4% vs. 33.3%)

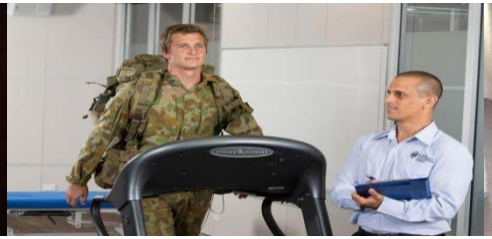
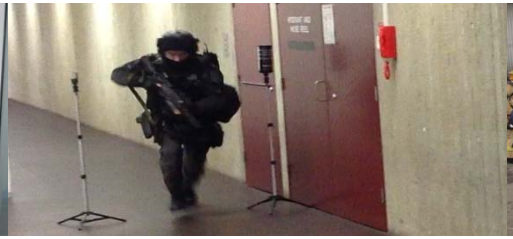
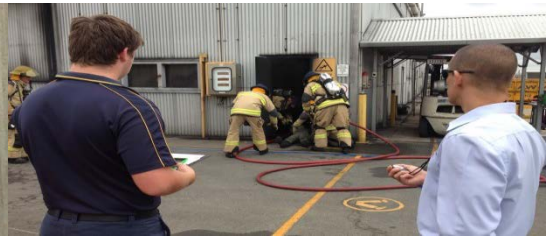

Discussion

- **Lx Sp injury** = most commonly reported WMSD in NSW Police officers attending a workplace-led physiotherapy & rehabilitation program
  - Anderson et al. (2011) - high incidence of lower back pain associated with many occupational stressors or lifestyle related issues
  - Burton et al. (1998) - chronic low back pain (CLBP) was associated with length of service (due to reoccurrence of previous injury)

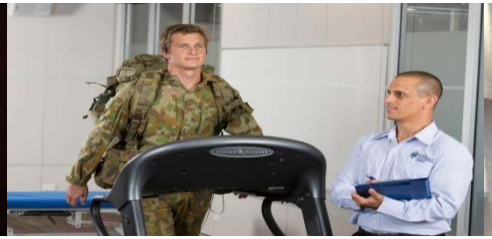
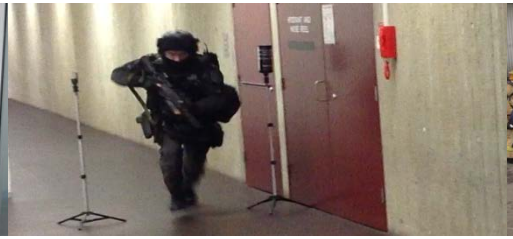
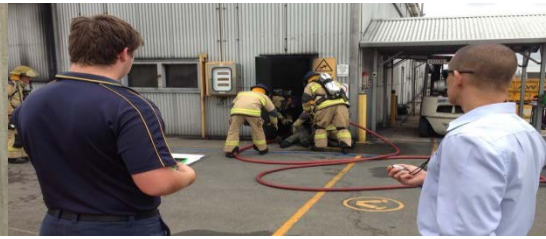

Discussion

- Female officers showed higher average for number of Rx attended
  - Feuerstein, et al. (1997) - higher overall and musculoskeletal-related disability risk in women US Army Personnel

Discussion

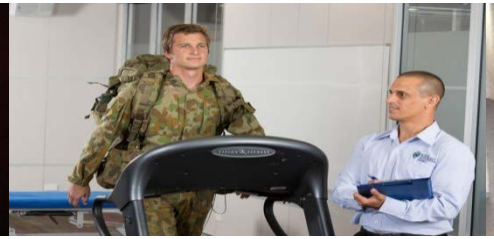
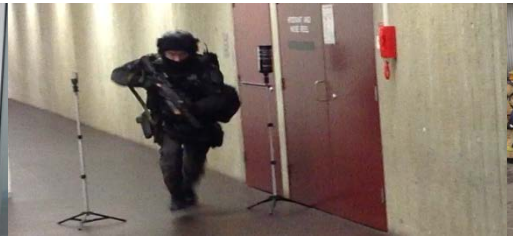
- Research on military populations indicates that WMSD represent a prevalent source of outpatient visits, **lost work time**, hospitalisation & disability (Feuerstein et al., 1997)
  - The findings of this study support the use of an in-house physiotherapy & rehabilitation program – eliminates cost of travel to external physio services
  - Mean cost per person = $711.81 , Revised mean cost per person = $394.67; Savings =$317.14 per person

Conclusions and Practical Applications

- Injuries to the lumbar spine were the most common presentation in a police workplace rehabilitation service
  - more often associated with wearing a hip holster than wearing a thigh holster

- Workplace rehabilitation services for injured police officers can limit lost productivity and travel costs associated with travel to external services during work time


References

- Anderson, G., Zutz, A., & Plecas, D. Police officer back health. The Journal of Criminal Justice Research. 2 (1): 1-17. 2011.
- Burton, A. K., Tillotson, K. M., & Troup, J. D. Prediction of low back trouble frquency in a working population. Spine. 14 (9): 939-946. 1998.
- Feuerstein, M., Berkowitz, S. M., & Peck, C. A. Jr. Musculoskeletal-related disability in US Army personnel: prevelence, gender, and military occupational specialties. Journal of Occupational and Environmental Medicine. 39 (1): 60-78. 1997.
- Orr R, Stierli M, Amabile ML, Wilkes B. The impact of a structured reconditioning program on the physical attributes and attitudes of injured police officers: A pilot study. Journal of Australian Strength and Conditioning. 2013;21(4):42.