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Profiling a Workplace Physiotherapy and Rehabilitation Program within a Police Force

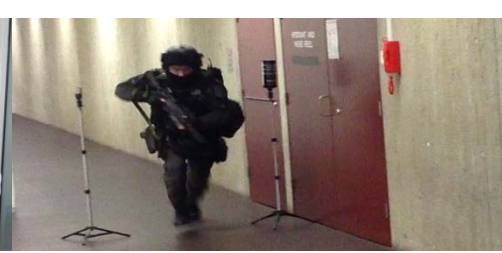


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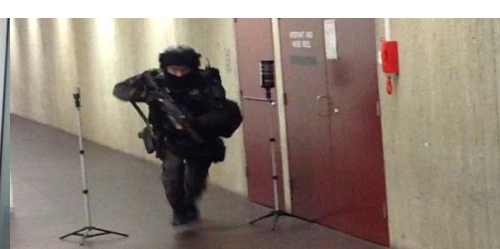


Introduction

- 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

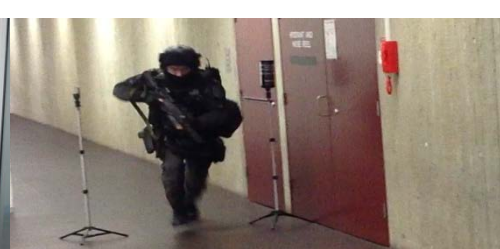
- Aim of research:
 - Profile police attendees of a workplace physiotherapy and reconditioning program in order to guide future treatment strategies





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

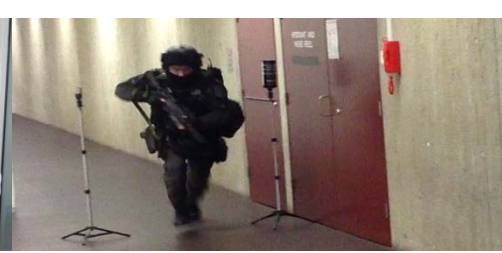
2) Height & Weight

- to calculate BMI

3) Nominal Roll & Attendance (Aug – Dec 14)

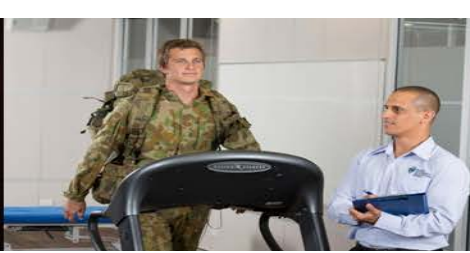
- Number of treatment sessions booked/ attended





Results

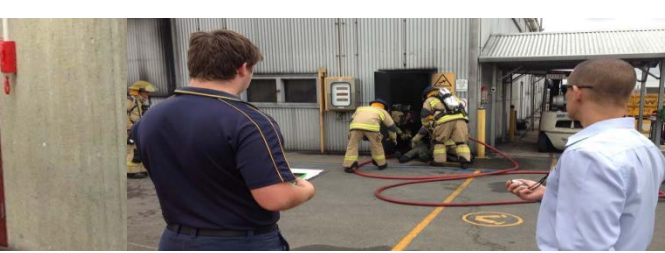
- Number of Treatments attended = 296/340 (87%)
- Lumbar spine injury = 40.5% (n=17); 119 Rx attended
 - Mean number of Rx attended = 7.0 ± 3.71
- Lumbar spine injury occurred across all ranks & groups for years of service
 - Highest prevalence among SGTs (29% of all Lx Sp inj.)
 - More frequent in 0-10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



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%)



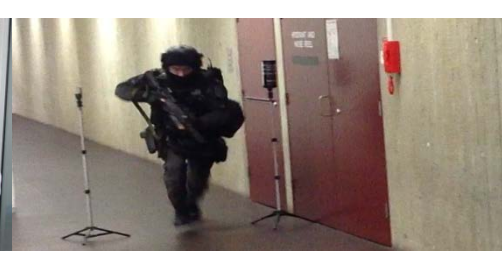
Discussion

- **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)



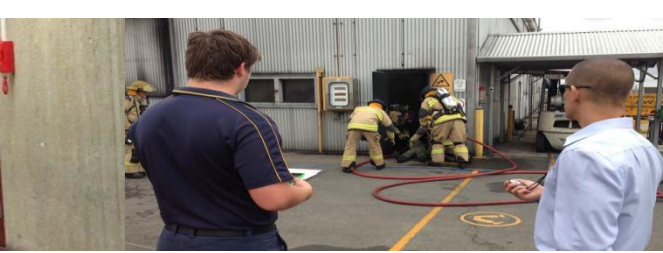
Discussion

- 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



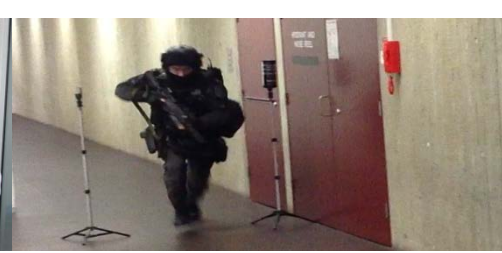
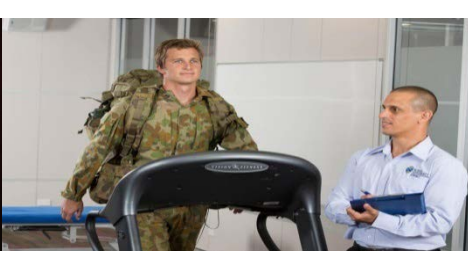
Discussion

- 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 frequency 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: prevalence, 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.