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Recommended citation(APA):
Dawson, G. M. E., Orr, R. M., & Broad, R. (2014). *Australian Army recruit training course length and recruit injury rates*. 43rd Annual Sports Medicine Association Queensland State Conference, Australia.

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Australian Army recruit training course length and recruit injury rates

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Aims and Hypothesis

- The longer the training period, the greater the risk of injury?

Aims

- Investigate the influence of lengthening training courses on injury rates
 - Profile injuries that occur.

Participants

- Participants:
 - Australian Regular Army recruits attending Basic Recruit training at Kapooka
 - Recruits were randomly selected for each course

Course	Number of Platoons	Number of Recruits	Male Recruits	Female Recruits
ASC	2	73	56	17
ARC	4	194	152	42
Total	6	267	208	59

Methods

- Data recorded during two different Army recruit training courses over 1 year period (2013)

ARC (80 d) / ASC (100 d)



- Injury Prevalence

Number of reported injuries / number of personnel completing respective course x 100

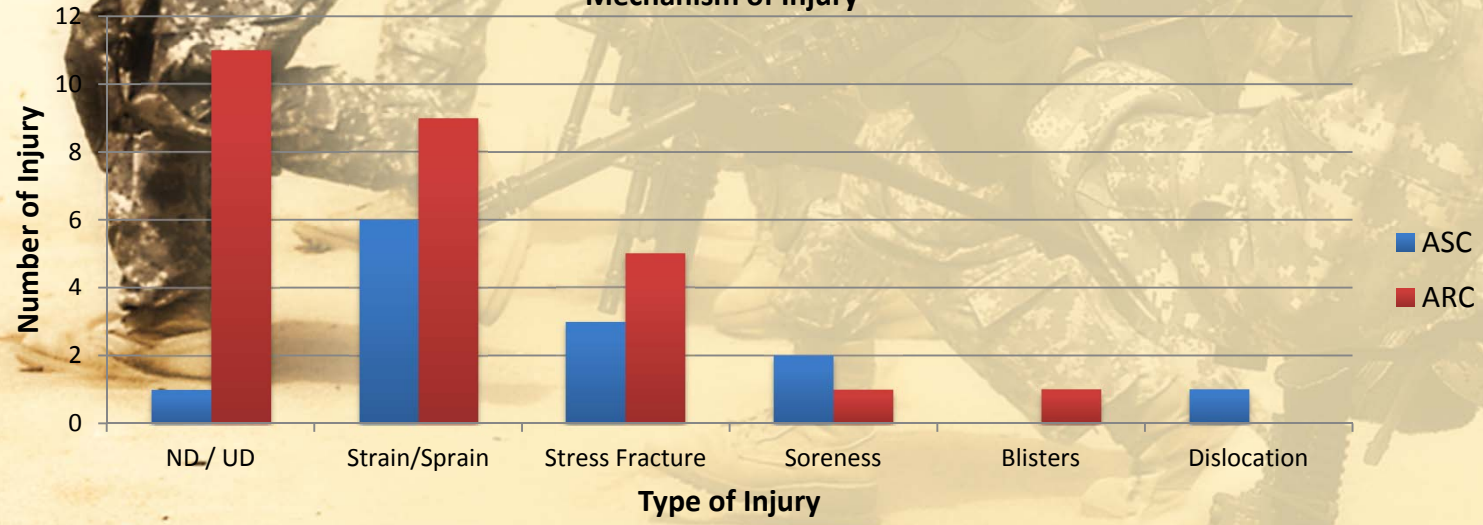
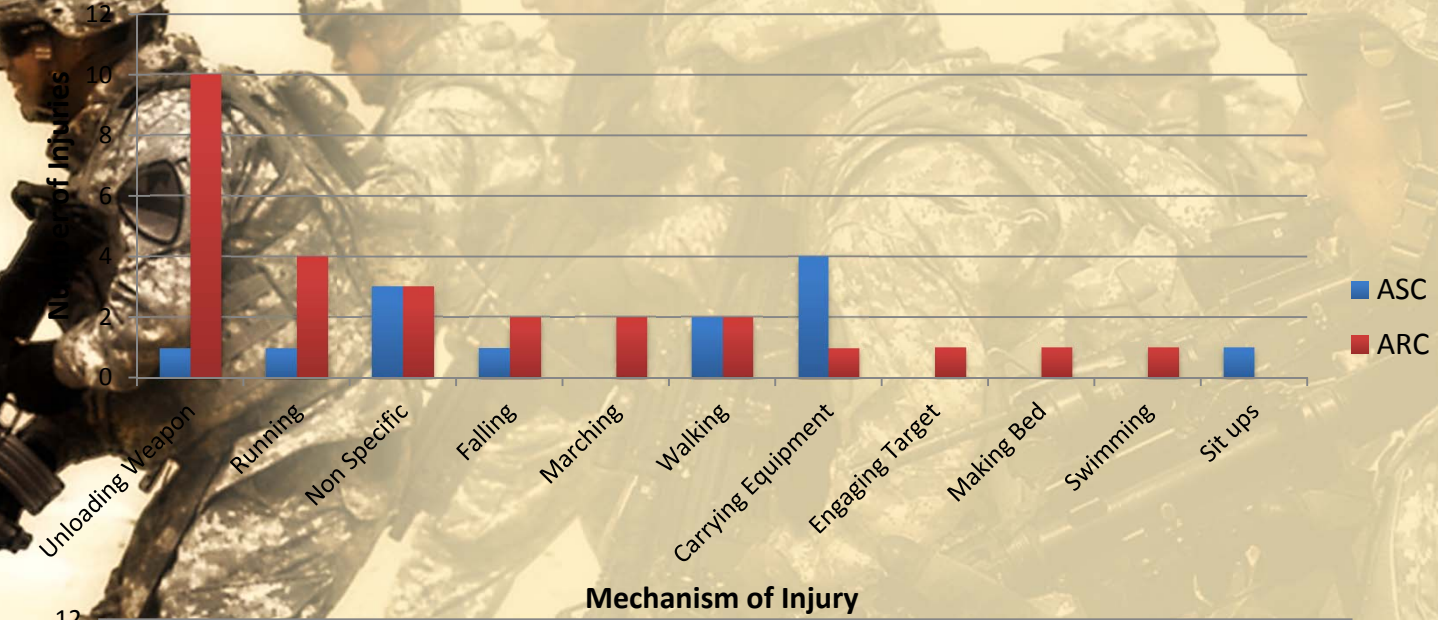
- Injury Incidence

Number of injuries / number of recruits completing the respective course / course length in days

Results

- ASC
 - 73 recruits, nil excluded
 - 13 recruits injured (17.8%)
 - 38.5% females
- ARC:
 - 194 recruits, 23 excluded
 - 27 recruits injured (13.9%)
 - 35% females
- Injury prevalence:
 - ASC: 17.8 per cent
 - ARC: 13.9 per cent
- Injury incidence:
 - ASC: 17.8 / 100 soldiers / 100 days
 - ARC: 17.4 / 100 soldiers / 100 days

Injury Profile



Anatomical sites of injury

- Collectively the highest anatomical injury sites:
 - Ankle/foot: 20 per cent (n=8)
 - Back/torso: 12.5 per cent (n=5)
 - Lower leg: 12.5 per cent (n=5).
- NSC:
 - Back/torso: 30.7 per cent
 - Ankle/foot 15.4 per cent
 - Shoulder 15.4 per cent
- ARC:
 - Ankle/foot 22.2 per cent
 - Lower leg 14.8 per cent



Discussion

- ASC had notably higher prevalence of injuries compared to ARC
- However when looking at cohort size and exposure to training, both courses had similar incidence rates

In contrast to previous studies, the current study revealed much lower prevalence and incidence rates

- Havenetidis et al (2011):

- 233 male Greek army recruits, 7 week course
- 28.3% prevalence

- Connor et al (2000):

- 480 Marine Corp officers, 6 week course
- 60.7% incidence
- 3.9 injuries per 1,000 person hours of physical training

Discussion

- Most common anatomical sites of injuries:
 - Current study:
 - **Sprains and strains**
 - **Stress fractures**
 - These injury types were also found to be the most common type in studies conducted by Havenetidis et al and O'Connor et al.

Conclusion / Take Home Message

- While the ASC had a higher prevalence of injury when injuries took into account exposure, incidence rates were virtually identical
- When considering the ASC against the ARC recruits are no more likely to be injured on one course over the other
- **When investigating injuries based on time periods, exposure to the risk needs to be taken into account**

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