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Recommended citation(APA):

SanzBustillo-Aguirre, B., Higuera-Gomez, L., Miralles-Muñoz, F., Angulo-Diaz-Parreño, S., Orr, R. M., & Lopez-Mojares, L. (2021). *Comparison of musculoskeletal disorders (MSDs) in military versus civilian workers of the ministry of defense of spain*. Poster session presented at XXII World Congress on Safety and Health , Canada.

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Comparison of Musculoskeletal Disorders (MSDs) in Military *versus* Civilian Workers of the Ministry of Defense of Spain

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Background

Work-related Musculoskeletal Disorders (MSDs) impact on workers:

- Safety & health
- Functional ability
- Sick-leave

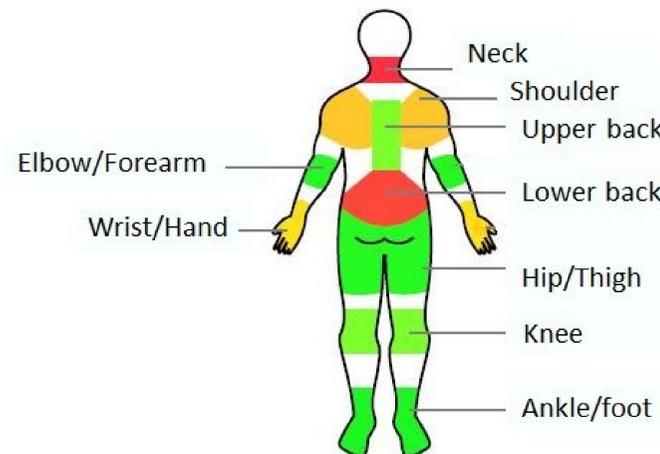
Injury incidence: military > general population

Purpose

To compare proportions of self-reported MSDs between military and civilian workers of the central headquarters of the Ministry of Defense of Spain.

Materials and Methods

Study sample: 100 participants (n= 50 military; n=50 civilian, (50% each gender) completed validated Spanish version of standardised Kuorinka Nordic Questionnaire.



Adapted from: Kuorinka (1987)

Ethics Approval Institution:

Hospital Central de la Defensa "Gómez Ulla" (Madrid, Spain).

Results

1 Symptoms (last 12 months)

Cervical Region

	♂ (n = 50)	♀ (n = 50)
Military	10 (40%)	21 (84%)
Civilian	15 (60%)	20 (80%)

Dorsolumbar Region

	♂ (n = 50)	♀ (n = 50)
Military	15 (60%)	18 (72%)
Civilian	11 (44%)	21 (84%)

Shoulder Region

	♂ (n=50)	♀ (n = 50)
Military	8 (32%)	13 (52%)
Civilian	10 (40%)	16 (64%)

2 Predominant duration of symptoms/body region (last 12 m)

	♂ (n=50)	♀ (n = 50)
Military	50% Cervical: 1-7 days Shoulder: >30 non-consecutive days	44.4% Dorsolumbar: > 30 non-consecutive days
Civilian	45.5% Dorsolumbar: 8-30 days	40% Cervical: > 30 non-consecutive days

3 Main symptomatic body area preventing from work (last 12 m)

	♂ (n=50)	♀ (n = 50)
Military	6.7% Dorsolumbar	16.8% Dorsolumbar
Civilian	25% Dorsolumbar	10% Cervical

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Reference Number: 690
 Type: Poster



Conclusions

- The three most common symptom sites reported for military and civilian personnel were the same, with no statistical differences across both populations (p>0.05).
- Female personnel represented a greater proportion of results in all three main body regions (p<0.05) when compared to male personnel.
 - Female personnel are known to more likely report an injury.
- While reported symptoms for the cervical and shoulder regions were higher in the civilian population, military personnel reported higher rates of longer lasting MSDs episodes than their civilian counterparts.
 - Underreporting of minor injuries is common in the military.
- The spinal region, notably the dorsolumbar, was the main symptomatic site preventing from work.

Recommendations

- Identification of factors leading to the higher representation of female personnel reporting symptoms.
- Improve reporting of minor injuries for military personnel.
- Risk mitigation strategies targeting the spinal and shoulder regions (e.g., workplace ergonomics) be investigated and trialled.

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