

## ABSTRACT

### ASSOCIATION BETWEEN WORK POSTURE AND OTHER RELATED FACTORS ON MUSCULOSKELETAL DISORDERS AMONG INTERPROVINCIAL BUS DRIVER IN BANDAR LAMPUNG

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**Background:** Musculoskeletal Disorders (MSDs) are the largest complaints among workers. MSDs is influenced by occupational factors such as work posture and individual factors. The aim of this study is to determine the association between work body posture and other related factors to musculoskeletal disorders on interprovincial bus drivers in Bandar Lampung.

**Method:** This study was an observational study with cross sectional design, which followed by 101 interprovincial bus drivers obtained by consecutive sampling technique. MSDs were assessed using Nordic Body Map and work posture was assessed using Rapid Entire Body Assessment (REBA). Chi-square analysis was used to determine the association between age, nutritional status, work period, exercise, smoking behaviour, and work body posture with MSDs with CI 95% ( $\alpha=5\%$ ).

**Results:** The prevalence of MSDs among bus drivers in Bandar Lampung was 73,3%. Distribution of MSDs locations are mostly located in the lower back, calves, shoulders, knees and neck. Most respondents (66.2%) had moderate risk according REBA. Analysis of the association between risk factors and MSDs obtained: age ( $p = 0.618$ ), nutritional status ( $p = 0.776$ ), work period (0,559), exercise ( $p = 0.959$ ), smoking ( $p = 0.712$ ), and posture ( $p=0,001$ , RR=6,27, 95% CI=1,73-22,77).

**Conclusion:** Risk factor associated with MSDs was work body posture. Respondent who had high risk have 6,27 times the risk compared to respondent had low risk, and respondent who had medium risk have 5,55 times the risk compared to respondent who had low risk.

**Key Words:** Bus driver, musculoskeletal disorders, work posture

## ABSTRAK

### HUBUNGAN POSTUR KERJA DAN FAKTOR LAIN TERHADAP KELUHAN *MUSCULOSKELETAL DISORDERS* (MSDs) PADA SOPIR BUS ANTAR PROVINSI DI BANDAR LAMPUNG

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**Latar Belakang:** Keluhan *Musculoskeletal Disorders* (MSDs) merupakan keluhan yang banyak dialami oleh pekerja. Keluhan MSDs dapat dipengaruhi oleh faktor pekerjaan seperti postur kerja dan faktor individual. Studi ini dilakukan untuk mengetahui hubungan antara postur tubuh saat bekerja dan faktor lain terhadap keluhan MSDs pada sopir bus antar provinsi di Bandar Lampung.

**Metode:** Penelitian ini merupakan penelitian observasional dengan desain *cross sectional*, yang diikuti 101 sopir bus antar provinsi yang didapatkan melalui teknik *consecutive sampling*. Pengumpulan data MSDs menggunakan lembar kerja *Nordic Body Map* dan penilaian postur kerja menggunakan metode *Rapid Entire Body Assessment* (REBA). Uji statistik *chi-square* digunakan untuk mengetahui hubungan antara usia, status gizi, masa kerja, kebiasaan olahraga, kebiasaan merokok, dan postur kerja dengan MSDs dengan tingkat kepercayaan 95% ( $\alpha=5\%$ ).

**Hasil:** Jumlah responden yang mengalami keluhan MSDs sebesar 73,3%. Sebaran lokasi MSDs sebagian besar berada pada bagian punggung bawah, betis, bahu, lutut, dan leher. Tingkat risiko responden terbanyak menurut skoring REBA adalah risiko sedang (66,2%). Analisis hubungan antara faktor risiko dengan MSDs didapatkan: usia ( $p=0,618$ ), status gizi ( $p=0,776$ ), masa kerja ( $p=0,559$ ), kebiasaan olahraga ( $p=0,959$ ), merokok ( $p=0,712$ ), dan postur kerja ( $p=0,001$ , RR=6,27, 95% CI=1,73-22,77).

**Simpulan:** Terdapat hubungan antara postur kerja dengan keluhan MSDs. Responden dengan risiko tinggi memiliki kemungkinan 6,27 kali untuk mengalami keluhan MSDs dan responden dengan risiko sedang memiliki kemungkinan 5,55 kali untuk mengalami keluhan MSDs.

**Kata Kunci:** *Musculoskeletal disorders*, postur kerja, sopir bus.