

## ABSTRAK

**Latar Belakang:** Studi pendahuluan pada pekerja *workshop* PT. X menunjukkan tingginya keluhan sakit pergelangan tangan (55,8%) disertai postur kerja berisiko tinggi dan kondisi psikologis yang kurang baik, yang berpotensi menurunkan produktivitas pekerja. Penelitian ini bertujuan untuk menganalisis pengaruh faktor individu dan karakteristik pekerjaan terhadap keluhan muskuloskeletal pada pergelangan tangan pekerja *workshop* PT. X.

**Metode:** Penelitian ini menggunakan desain analitik observasional dengan pendekatan *cross-sectional*. Populasi dan sampel penelitian adalah seluruh pekerja *workshop* bagian fabrikasi yang bertugas menggunakan alat kerja bergetar (gerinda dan bor) di PT. X yaitu sebanyak 69 orang (*total sampling*). Variabel dependen adalah keluhan muskuloskeletal pada pergelangan tangan, sedangkan variabel independen meliputi usia, masa kerja, status gizi, kondisi psikologis, postur kerja, gerakan berulang, dan durasi kerja. Pengumpulan data dilakukan melalui kuesioner dan observasi lapangan. Analisis data meliputi analisis univariat, analisis bivariat berupa uji *chi-square* dan *fisher's exact*, serta analisis multivariabel berupa regresi logistik biner.

**Hasil:** Sebanyak 66.7% pekerja mengalami keluhan muskuloskeletal pada pergelangan tangan, dengan mayoritas berupa nyeri neuropati (82.61%). Analisis bivariat menunjukkan hubungan signifikan antara masa kerja ( $p=0.006$ ), postur kerja ( $p<0.001$ ), gerakan berulang ( $p<0.001$ ), dan durasi kerja ( $p=0.001$ ) dengan keluhan muskuloskeletal. Analisis multivariabel menunjukkan bahwa postur kerja berisiko tinggi (OR=17.868) dan gerakan berulang  $\geq 30$  kali/menit (OR=11.836) merupakan faktor dominan.

**Kesimpulan:** Postur kerja janggal pada pergelangan dan gerakan kerja berulang merupakan faktor utama yang meningkatkan risiko keluhan muskuloskeletal pada pergelangan tangan pekerja *workshop* PT. X.

**Kata Kunci:** Faktor Individu, Karakteristik Pekerjaan, Keluhan Muskuloskeletal pada Pergelangan Tangan

## **ABSTRACT**

**Background:** *A preliminary study among workshop workers at PT. X revealed a high prevalence of wrist pain complaints (55.8%), accompanied by high-risk working postures and unfavorable psychological conditions, which may negatively affect worker productivity. This study aimed to examine the influence of individual factors and job characteristics on wrist musculoskeletal complaints among workshop workers at PT. X.*

**Methods:** *This study employed an observational analytic design with a cross-sectional approach. The study population and sample consisted of all fabrication workshop workers who used vibrating tools (grinders and drills) at PT. X, totaling 69 workers (total sampling). The dependent variable was wrist musculoskeletal complaints, while the independent variables included age, length of employment, nutritional status, psychological condition, working posture, repetitive motion, and working duration. Data were collected through questionnaires and field observations. Data analysis included univariate analysis, bivariate analysis using chi-square and Fisher's exact tests, and multivariate analysis using binary logistic regression.*

**Results:** *A total of 66.7% of workers experienced wrist musculoskeletal complaints, with the majority classified as neuropathic pain (82.61%). Bivariate analysis showed significant associations between length of employment ( $p = 0.006$ ), working posture ( $p < 0.001$ ), repetitive motion ( $p < 0.001$ ), and working duration ( $p = 0.001$ ) with wrist musculoskeletal complaints. Multivariate analysis revealed that high-risk working posture ( $OR = 17.868$ ) and repetitive motion  $\geq 30$  times/minute ( $OR = 11.836$ ) were the dominant factors.*

**Conclusion:** *Awkward wrist postures and repetitive work movements are the primary factors increasing the risk of wrist musculoskeletal complaints among workshop workers at PT. X.*

**Keywords:** *Individual Factors, Job Characteristics, Wrist Musculoskeletal Complaints*