ABSTRAK

Penelitian ini bertujuan untuk menganalisis kondisi lingkungan kerja yang meliputi suhu dan pencahayaan, mengidentifikasi postur kerja serta keluhan *Musculoskeletal Disorders* (MSDs), dan menganalisis pengaruh faktor-faktor tersebut terhadap keluhan karyawan bagian produksi di CV. Inti Karya Sejahtera Kabupaten Madiun. Penelitian ini menggunakan pendekatan kuantitatif dengan jenis penelitian deskriptif analitik. Pengambilan sampel dilakukan dengan teknik total sampling terhadap 60 karyawan bagian produksi. Pengumpulan data dilakukan melalui pengukuran suhu dan intensitas pencahayaan, penilaian postur kerja menggunakan metode *Rapid Entire Body Assessment* (REBA), serta identifikasi keluhan muskuloskeletal menggunakan kuesioner *Nordic Body Map* (NBM). Data dianalisis menggunakan regresi linier berganda dengan bantuan perangkat lunak Minitab. Hasil penelitian menunjukkan bahwa intensitas pencahayaan berada pada kisaran 73–186 lux, sedangkan suhu lingkungan kerja berkisar antara 36,6°C–38,8°C. Penilaian postur kerja menunjukkan bahwa sebagian besar karyawan berada pada tingkat risiko sedang dan sebagian lainnya berada pada tingkat risiko tinggi. Keluhan muskuloskeletal paling banyak dirasakan pada bagian punggung, pinggang, leher atas, dan leher bawah. Hasil analisis regresi linier berganda menunjukkan bahwa secara simultan variabel pencahayaan, suhu, usia, dan postur kerja tidak berpengaruh signifikan terhadap keluhan MSDs dengan nilai *p-value* sebesar 0,224. Secara parsial, usia berpengaruh signifikan terhadap keluhan MSDs dengan nilai *p-value* sebesar 0,025, sedangkan pencahayaan, suhu, dan postur kerja tidak menunjukkan pengaruh signifikan. Berdasarkan hasil tersebut, perbaikan ergonomi disarankan melalui peningkatan pencahayaan, perbaikan sirkulasi udara, penyesuaian fasilitas kerja, serta penerapan peregangan dan istirahat aktif secara berkala.

Kata kunci: Lingkungan Kerja, Pencahayaan, Suhu, Postur Kerja, *Musculoskeletal Disorders* (MSDs).

ABSTRACT

This study aims to analyze workplace environmental conditions, including temperature and lighting, identify working postures and Musculoskeletal Disorders (MSDs) complaints, and examine the effects of these factors on production employees at CV. Inti Karya Sejahtera, Madiun Regency. This research employed a quantitative approach with a descriptive-analytical design. A total sampling technique was used, involving all 60 production employees. Data were collected through measurements of workplace temperature and lighting intensity, working posture assessments using the Rapid Entire Body Assessment (REBA) method, and the identification of musculoskeletal complaints using the Nordic Body Map (NBM) questionnaire. The data were analyzed using multiple linear regression with Minitab software. The results showed that lighting intensity ranged from 73 to 186 lux, while workplace temperature ranged from 36.6°C to 38.8°C. The working posture assessment indicated that most employees were exposed to a medium level of ergonomic risk, while some were exposed to a high level of risk. The most frequently reported musculoskeletal complaints occurred in the back, waist, upper neck, and lower neck. Multiple linear regression analysis showed that lighting intensity, temperature, age, and working posture did not have a statistically significant simultaneous effect on MSDs complaints, with a p-value of 0.224. However, partial analysis revealed that age had a statistically significant effect on MSDs complaints, with a p-value of 0.025, whereas lighting intensity, temperature, and working posture did not show statistically significant effects. Based on these findings, ergonomic improvements are recommended through enhanced lighting, improved air circulation, adjustments to workplace facilities, and the implementation of regular stretching and active breaks.

Keywords: *Work Environment, Lighting, Temperature, Working Posture, Musculoskeletal Disorders (MSDs).*