

ANALISIS FAKTOR RISIKO ERGONOMI TERHADAP KELUHAN MUSCULOSKELETAL DISORDERS PADA PEKERJA PT. PLN UP3 BEKASI

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ABSTRAK

Musculoskeletal Disorders (MSDs) merupakan gangguan kesehatan kerja yang sering timbul akibat paparan faktor ergonomi, terutama postur kerja yang berisiko serta durasi kerja yang panjang. Berdasarkan studi pendahuluan yang dilakukan di PT. PLN UP3 Bekasi, ditemukan bahwa beberapa pekerja mengalami nyeri pada otot dan sendi setelah insiden terjatuh saat bekerja dengan postur yang tidak ergonomis. Temuan ini menjadi landasan perumusan masalah dalam analisis ini, yaitu untuk menilai distribusi keluhan MSDs serta mengkaji antara faktor individu dan faktor ergonomi dengan keluhan MSDs pada pekerja PT. PLN UP3 Bekasi tahun 2025. Penelitian ini menerapkan desain kuantitatif dengan pendekatan *cross-sectional* pada 84 responden yang dipilih menggunakan teknik *total sampling*. Pengukuran keluhan MSDs dilakukan menggunakan kuesioner Nordic Body Map (NBM), sedangkan penilaian postur kerja dilakukan dengan metode Quick Exposure Check (QEC). Analisis data ini dinilai secara univariat dan bivariat dengan penerapan uji Chi-Square. Hasil penelitian memperlihatkan bahwa 64,3% pekerja tidak mengalami keluhan MSDs, sedangkan 35,7% mengalami keluhan MSDs. Faktor ergonomi, seperti masa kerja, durasi kerja, dan postur kerja, terbukti memiliki hubungan signifikan dengan keluhan MSDs. Oleh karena itu, pengendalian risiko ergonomi melalui perbaikan postur kerja dan pengaturan durasi kerja menjadi hal yang diperlukan.

Kata Kunci: Durasi Kerja, Masa Kerja, Musculoskeletal Disorders (MSDs), Postur Kerja, Quick Exposure Check (QEC)

ANALYSIS OF ERGONOMIC RISK FACTORS ASSOCIATED WITH MUSCULOSKELETAL DISORDER COMPLAINTS AMONG WORKERS AT PT. PLN UP3 BEKASI

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ABSTRACT

Musculoskeletal Disorders (MSDs) are occupational health disorders that often arise due to exposure to ergonomic factors, particularly risky work postures and long working hours. Based on a preliminary study conducted at PT. PLN UP3 Bekasi, it was found that several workers experienced muscle and joint pain after falling while working in non-ergonomic postures. These findings formed the basis for the research question in this study, which was to determine the distribution of MSD complaints and the relationship between individual factors and ergonomic factors with MSD complaints among workers at PT. PLN UP3 Bekasi in 2025. This study used a quantitative design with a cross-sectional approach involving 84 respondents through total sampling. MSDs complaints were measured using the Nordic Body Map (NBM) questionnaire, while work posture was assessed using the Quick Exposure Check (QEC) method. Data analysis was performed using univariate and bivariate Chi-Square tests. The results showed that 64.3% of workers did not experience MSD complaints, while 35.7% did. Ergonomic factors, such as length of service, working hours, and work posture, were found to have a significant relationship with MSD complaints. Therefore, ergonomic risk control through work posture improvement and working hours regulation is necessary.

Keywords: Musculoskeletal Disorders (MSDs), Quick Exposure Check (QEC), Work Duration, Work Posture, Work Tenure.