

ABSTRAK

Hubungan Ergonomi (*Work Posture*) Dengan *Back Pain Level* Pada Pekerja *Manual Handling* Di PT Avery Sentosa Indonesia Kabupaten Mojokerto

Oleh:

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Back pain merupakan salah satu gangguan muskuloskeletal yang sering dialami pekerja *manual handling* akibat aktivitas mengangkat, membawa, dan memindahkan beban secara berulang. *Work posture* yang tidak ergonomis dapat meningkatkan tekanan biomekanik pada tulang belakang sehingga berisiko menimbulkan *back pain*. Penelitian ini bertujuan untuk menganalisis hubungan ergonomi (*work posture*) dengan *back pain level* pada pekerja *manual handling* di PT Avery Sentosa Indonesia Kabupaten Mojokerto. Penelitian ini menggunakan desain kuantitatif korelasional dengan pendekatan *time series*. Sampel penelitian berjumlah 27 responden yang dipilih menggunakan teknik *total sampling*. Variabel independen adalah *work posture* yang diukur menggunakan *Rapid Entire Body Assessment* (REBA), sedangkan variabel dependen adalah *back pain level* yang diukur menggunakan *Numeric Rating Scale* (NRS). Pengukuran dilakukan sebanyak tiga kali pada responden yang sama, kemudian hasilnya dirata-ratakan sebagai nilai akhir analisis dengan tingkat signifikansi $\alpha = 0,05$. Hasil penelitian menunjukkan bahwa sebagian besar responden memiliki *work posture* kategori risiko tinggi sebanyak 16 responden (59,3%) dan hampir setengah responden mengalami *back pain level* kategori nyeri sedang sebanyak 13 responden (48,1%). Hasil tabulasi silang menunjukkan bahwa responden dengan *work posture* kategori risiko tinggi sebagian besar mengalami nyeri berat sebanyak 8 responden (50,0%). Hasil analisis diperoleh nilai $p\text{-value} = 0,001$; $p < \alpha (0,05)$, dengan koefisien korelasi $r = 0,613$, yang menunjukkan adanya hubungan yang kuat dan searah antara *work posture* dengan *back pain level*. Semakin tinggi risiko *work posture*, semakin tinggi pula *back pain level* yang dialami pekerja. Oleh karena itu, penerapan *work posture* yang ergonomis perlu ditingkatkan untuk membantu menurunkan risiko *back pain* pada pekerja *manual handling*.

Kata kunci: ergonomi, *work posture*, *back pain level*, *manual handling*, NRS, REBA.

ABSTRAK

Relationship Between Ergonomics (Work Posture) and Back Pain Levels in Manual Handling Workers at PT Avery Sentosa Indonesia, Mojokerto Regency

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Back pain is one of the most common musculoskeletal disorders experienced by manual handling workers due to repetitive activities such as lifting, carrying, and moving loads. Non-ergonomic work posture can increase biomechanical stress on the spine, thereby increasing the risk of back pain. This study aimed to analyze the relationship between ergonomics (work posture) and back pain level among manual handling workers at PT Avery Sentosa Indonesia, Mojokerto Regency. This study employed a quantitative correlational design with a time series approach. The sample consisted of 27 respondents selected using a total sampling technique. The independent variable was work posture, measured using the Rapid Entire Body Assessment (REBA), while the dependent variable was back pain level, measured using the Numeric Rating Scale (NRS). Measurements were conducted three times on the same respondents, and the results were averaged to obtain the final values for analysis with a significance level of $\alpha = 0.05$. The results showed that most respondents had a high-risk work posture (16 respondents; 59.3%), while nearly half experienced a moderate level of back pain (13 respondents; 48.1%). Cross-tabulation analysis indicated that respondents with a high-risk work posture were predominantly in the severe pain category (8 respondents; 50.0%). The analysis yielded a p-value = 0.001; $p < \alpha$ (0.05), with a correlation coefficient of $r = 0.613$, indicating a strong positive relationship between work posture and back pain level. The higher the work posture risk, the higher the back pain level experienced by the workers. Therefore, the implementation of ergonomic work postures should be improved to help reduce the risk of back pain among manual handling workers.

Keywords: ergonomics, work posture, back pain level, manual handling, NRS, REBA