

FAKTOR RISIKO *HEAT STRAIN* PADA PEKERJA LAPANGAN PERUSAHAAN MANUFAKTUR X DI KOTA DEPOK TAHUN 2024

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Abstrak

Paparan suhu yang panas dapat menyebabkan terjadinya *heat strain* pada para pekerja. Munculnya *heat strain* dapat dipengaruhi oleh banyak faktor seperti faktor individu, pekerjaan, dan lingkungan. Penelitian ini bertujuan untuk menganalisis faktor-faktor risiko *heat strain* pada pekerja perusahaan manufaktur X di Kota Depok, Jawa Barat yang dilakukan atas dasar laporan tahunan pengukuran iklim kerja perusahaan yang melebihi nilai ambang batas (NAB) yaitu 34,6°C. Metode penelitian yang digunakan adalah kuantitatif dengan desain studi *cross-sectional* serta data diolah dengan uji *chi-square* dan uji korelasi *Spearman's Rank*. Responden pada penelitian ini berjumlah 105 orang pekerja. Faktor yang diteliti meliputi usia, indeks massa tubuh, asupan cairan harian, masa kerja, beban kerja fisik, iklim kerja dan kecepatan angin. Pengukuran faktor lingkungan dilakukan menggunakan *Wet-Bulb Globe Thermometer* dengan titik pengujian sebanyak 4 titik. Hasil penelitian menunjukkan bahwa 23 dari 105 pekerja (21,9%) mengalami *heat strain*. Terdapat hubungan antara IMT ($p\text{-value}=0,041$), beban kerja fisik ($p\text{-value}=0,000$), dan iklim kerja panas ($p\text{-value}=0,000$) terhadap *heat strain* para pekerja. Berdasarkan hasil penelitian, dapat terlihat bahwa terdapat hubungan antara faktor individu, faktor pekerjaan, dan faktor lingkungan kerja terhadap *heat strain*. Disarankan perusahaan manufaktur X dapat memperhatikan kembali sistem ventilasi perusahaan.

Kata kunci : Beban kerja fisik, *Heat strain*, Iklim kerja, Pekerja manufaktur

RISK FACTORS FOR HEAT STRAIN AMONG MANUFACTURING COMPANY X FIELD WORKERS AT DEPOK CITY IN 2024

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Abstract

Exposure to hot temperatures can cause heat strain in workers. The emergence of heat strain can be influenced by many factors such as individual, occupational, and environmental factors. This study aims to analyze the risk factors for heat strain in workers of manufacturing company X in Depok City, West Java, which is carried out on the basis of the annual report on the measurement of the company's working climate which exceeds the threshold value (NAB) of 34.6°C. The research method used was quantitative with a cross-sectional study design and the data was processed with the chi-square test and Spearman's Rank correlation test. Respondents in this study totaled 105 workers. The factors studied included age, body mass index, daily fluid intake, tenure, physical workload, work climate and wind speed. Measurement of environmental factors was carried out using a Wet-Bulb Globe Thermometer with 4 test points. The results showed that 23 out of 105 workers (21.9%) experienced heat strain. There was a relationship between BMI (p-value=0.041), physical workload (p-value=0.000), and hot work climate (p-value=0.000) to the heat strain of the workers. Based on the results of the study, it can be seen that there is a relationship between individual factors, work factors, and work environment factors to heat strain. It is recommended that manufacturing company X can pay attention to the company's ventilation system again.

Keyword : *Heat strain*, Manufacturing company workers, Physical workload, Work climate