



UNIVERSITAS ANDALAS

**FAKTOR YANG BERHUBUNGAN DENGAN KELUHAN SUBJEKTIF AKIBAT
TEKANAN PANAS PADA PEKERJA KONSTRUKSI PROYEK *MAINTENANCE*
DI PT PERTAMINA PATRA NIAGA RU II SUNGAI PAKNING
PROVINSI RIAU**



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**FAKULTAS KESEHATAN MASYARAKAT
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**FAKTOR YANG BERHUBUNGAN DENGAN KELUHAN SUBJEKTIF
AKIBAT TEKANAN PANAS PADA PEKERJA KONSTRUKSI PROYEK
MAINTENANCE DI PT PERTAMINA PATRA NIAGA RU II SUNGAI
PAKNING PROVINSI RIAU**

xiv + 120 halaman, 26 tabel, 13 gambar, 14 lampiran

ABSTRAK

Tujuan

Keluhan akibat tekanan panas merupakan masalah serius bagi konstruksi akibat faktor lingkungan, pekerjaan, dan pakaian kerja. Proyek *maintenance* di PT Pertamina Patra Niaga RU II Sungai Pakning merupakan pekerjaan konstruksi berisiko tinggi terhadap tekanan panas. Penelitian bertujuan mengetahui faktor yang berhubungan dengan keluhan subjektif tekanan panas pada pekerja konstruksi tersebut.

Metode

Penelitian kuantitatif desain *cross sectional* November 2025-Juli 2026 pada 97 pekerja konstruksi proyek *maintenance* di PT Pertamina Patra Niaga RU II Sungai Pakning, dipilih *simple random sampling*. Variabel dependen keluhan subjektif akibat tekanan panas; variabel independen beban kerja, pakaian kerja, kejadian tekanan panas, umur, IMT, dan konsumsi air minum. Analisis univariat dan bivariat *chi-square*.

Hasil

Hasil univariat menunjukkan 49,5% pekerja mengalami keluhan subjektif berat, 29,9% beban kerja berat, 18,6% berpakaian kerja dua lapis, 76,3% mengalami kejadian tekanan panas, 22,7% berumur berisiko, 53,6% IMT berisiko, dan 46,4% kurang minum air. Terdapat hubungan signifikan beban kerja ($p<0,001$), pakaian kerja ($p=0,016$), kejadian tekanan panas ($p<0,001$) dengan keluhan subjektif.

Kesimpulan

Beban kerja, pakaian kerja, kejadian tekanan panas berhubungan signifikan dengan keluhan. Disarankan menyesuaikan jam kerja bagi pekerja beban kerja berat/berpakaian kerja dua lapis, mempertimbangkan warna pakaian terang, mengoptimalkan ventilasi *manhole*, meningkatkan kualitas shelter, mengembangkan program pengendalian, serta mengedukasi bahaya tekanan panas.

Daftar Pustaka : 65 (1963-2026)

Kata Kunci : keluhan, tekanan panas, beban kerja, pakaian kerja, konstruksi.

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FACTORS ASSOCIATED WITH HEAT STRESS INDUCED SUBJECTIVE COMPLAINTS AMONG MAINTENANCE PROJECT CONSTRUCTION WORKERS AT PT PERTAMINA PATRA NIAGA RU II SUNGAI PAKNING, RIAU PROVINCE

xiv + 120 pages, 26 tables, 13 pictures, 14 appendices

ABSTRACT

Objective

Heat stress complaints are a serious problem for construction workers due to environmental, occupational, and clothing-related exposure. The maintenance project at PT Pertamina Patra Niaga RU II Sungai Pakning has high risk of heat stress exposure. This study aimed to identify factors associated with subjective heat stress complaints among these workers.

Method

A quantitative cross sectional study was conducted from November 2025-July 2026 on 97 construction workers of the maintenance project at PT Pertamina Patra Niaga RU II Sungai Pakning, selected by simple random sampling. The dependent variable was subjective heat stress complaints; independent variables included workload, work clothing, heat stress incidents, age, BMI, and water intake. Data were analyzed using univariate and bivariate chi-square tests.

Results

Univariate results showed 49.5% of workers had severe complaints, 29.9% heavy workload, 18.6% double-layered clothing, 76.3% heat stress incidents, 22.7% risky age, 53.6% risky BMI, and 46.4% inadequate water intake. Significant associations were found between workload ($p<0.001$), work clothing ($p=0.016$), and heat stress incidents ($p<0.001$) with the complaints.

Conclusion

Workload, work clothing, and heat stress exposure significantly correlate with subjective complaints. Key recommendation include adjusting work hours for heavy workloads's workers/wearing double-layer work clothing, optimize ventilation through manholes, improve shelter quality, implementing control program, and educate workers.

References : 65 (1963-2026)

Keywords : subjective complaints, heat stress, workload, work clothing, construction workers.