PERBEDAAN TEKANAN DARAH SEBELUM, SAAT DAN SESUDAH TERPAPAR TEKANAN PANAS PADA TENAGA KERJA BAGIAN BOILER BATU BARA DI INDUSTRI TEKSTIL SALATIGA

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(2008 - Skripsi)

Proses produksi boiler batu bara mencapai suhu 33,9^{o}C. Suhu tersebut sudah melebihi Nilai Ambang Batas yang ditetapkan berdasarkan Surat Keputusan Menteri Tenaga Kerja No. Kep 51/MEN/1999 tentang NAB Faktor Fisik di Tempat Kerja. Tujuan penelitian ini adalah untuk mengetahui perbedaan tekanan darah sebelum, saat dan sesudah terpapar tekanan panas pada tenaga kerja bagian boiler batu bara di Industri Tekstil Salatiga.
Jenis penelitian ini adalah penelitian penjelasan *(Explanatory Research)* dengan menggunakan pendekatan *cross sectional*. Pengambilan data dilakukan dengan menggunakan kuesioner untuk mengetahui keluhan subyektif responden, mengukur tekanan panas, kebisingan dan tekanan darah tenaga kerja. Variabel bebas adalah tekanan panas dan variabel terikat adalah tekanan darah. Populasi dalam penelitian ini adalah seluruh tenaga kerja di bagian boiler batu bara Industri Tekstil Salatiga yang berjumlah 33 orang. Sampel dalam penelitian ini adalah seluruh jumlah populasi.
Rata-rata selisih tekanan darah *sistole* sebelum dan saat terpapar tekanan panas (-6,06 mmHg), saat dan sesudah (-6,66 mmHg), sebelum dan sesudah (-12,72 mmHg), sedangkan rata-rata selisih tekanan darah *diastole* sebelum dan saat terpapar tekanan panas (-10,61 mmHg), saat dan sesudah (-4,54 mmHg), sebelum dan sesudah (-15,15 mmHg). Dari hasil uji statistik dengan menggunakan uji *t-test* dengan taraf kesalahan 5% (0,05) diperoleh hasil bahwa ada perbedaan yang bermakna antara tekanan darah *sistole* sebelum dan saat terpapar tekanan panas (*p value* 0,002), saat dan sesudah (*p value* 0,006), sebelum dan sesudah (*p value* 0,000), sedangkan rata-rata selisih tekanan darah *diastole* sebelum dan saat terpapar tekanan panas (*p value* 0,000), saat dan sesudah (*p value* 0,037), sebelum dan sesudah (*p value* 0,000). Hasil uji *t-test* untuk tekanan darah arteri rata-rata sebelum dan saat terpapar tekanan panas (*p value* 0,000), saat dan sesudah (*p value* 0,024), sebelum dan sesudah (*p value* 0,000), berarti ada perbedaan yang bermakana. Kesimpulan dalam penelitian ini adalah ada perbedaan antara tekanan darah sebelum, saat dan sesudah terpapar tekanan panas pada tenaga kerja bagian boiler batu bara di Industri Tekstil Salatiga. Saran pemberian apron dan penyediaan air minum yang mengandung garam dapur (0,1 NaCL) dan makanan tambahan.

Kata Kunci: Tekanan panas, Tekanan darah

BLOOD PRESSURE DIFFERENCE BEFORE, DURING, AND AFTER BEING EXPOSURED BY HEAT PRESSURE ON THE WORKERS OF COAL BOILER DIVISION IN TEXTILE INDUSTRY IN SALATIGA

Coal boiler production process reaches the temperature of 33,9^{o}C. This temperature has exceeded the limit point determined by the letter of Ministerial Decree No. Kep 51/MEN/1999 about NAB physical factor in the working place. The goal of this study is to know the difference of blood pressure before, during, and after being exposured by heat pressure on the workers of coal boiler division in textile industry in Salatiga.
This study is an explanatory research using cross sectional approach. Data was obtained using questionnaire to explore subjective complaint of respondent, measuring heat preasure, noise and blood pressure of workers. The independent variable is heat pressure and the dependent variable is blood pressure. The population of this study is all of workers in the coal boiler division in textile industry in Salatiga (33 people). The sample of this study is the whole population. The average of sistole blood pressure difference before and during exposure (-6.06 mmHg), during and after exposure (-6.66 mmHg), before and after exposure (-12.72 mmHg). While the average of diastole blood pressure difference before and during exposure (-10.61 mmHg), during and after exposure (-4.54 mmHg), before and after exposure (-15.15 mmHg. A statistical testing using t-test with error estimation 5 % (0.05) shows that there is significancy different between sistole blood pressure before and during exposure (p value 0.002), during and after exposure (p value 0.006), before and after exposure (p value 0.000). While diastole blood pressure before and during exposure (p value 0.000), during and after exposure (p value 0.037), before and after exposure (p value 0.000). The result of t-test of artery blood pressure shows that the average of artery blood pressure before and during exposure (p value 0.000), during and after exposure (p value 0.024), before and after exposure (p value 0.000), it means that there is a significancy different. The conclusion of this study is there is difference of blood pressure before, during, and after being exposured by heat pressure on the workers of coal boiler division in textile industry in Salatiga. We suggest to give apron and provide drinking water contained salt (0,1 NaCL) and give supplement food to the workers.

Keyword: *Heat pressure, Blood pressure*