

**HUBUNGAN ANTARA JENIS PEKERJAAN DAN ASUPAN LEMAK TERHADAP PERSENTASE LEMAK TUBUH DAN TEKANAN DARAH PADA PEKERJA**

**ABSTRAK**

**Latar Belakang:** Perkembangan industri diikuti dengan perkembangan munculnya penyakit pada pekerja. Paparan di tempat kerja turut berkontribusi terhadap status kesehatan pekerja. Beberapa penelitian menemukan bahwa hipertensi pada pekerja dipengaruhi jenis pekerjaan, beban kerja, obesitas, kebisingan, tekanan panas, jam kerja, dan stress psikososial. Selain hipertensi, pekerja juga berisiko untuk mengalami obesitas yang ditunjukkan dengan adanya penumpukkan lemak tubuh.

**Tujuan Penelitian:** Mengetahui perbedaan antara jenis pekerjaan terhadap persentase lemak tubuh dan tekanan darah pekerja.

Mengetahui hubungan antara asupan lemak pekerja terhadap persentase lemak tubuh dan tekanan darah pada pekerja.

**Metode Penelitian:** Desain penelitian ini adalah *cross sectional* dengan subjek adalah pekerja shift siang (14.00-22.00 WIB) dengan kriteria inklusi dan eksklusi. Subjek berjumlah 103 orang dengan metode *purposive sampling*. Tekanan darah diukur oleh peneliti menggunakan alat *Sphygmomanometer* dan persentase lemak tubuh diukur menggunakan *Bioelectrical Impedance Analyzer* (BIA). Uji statistik yang digunakan adalah uji *Kruskall Wallis* dan uji korelasi *Spearman*.

**Hasil Penelitian:** Sebanyak 103 responden dikategorikan berdasarkan jenis pekerjaannya, yaitu 8 orang bagian kantor, 78 orang bagian operator, dan 17 orang bagian mekanik. Ada perbedaan yang signifikan antara jenis pekerjaan dan persentase lemak tubuh total (rerata kantor vs persentase lemak tubuh total adalah  $23,96 \pm 5,775$ ; operator vs persentase lemak tubuh total  $31,32 \pm 5,727$ ; mekanik vs persentase lemak tubuh total  $22,20 \pm 4,649$ ;  $p=0,000$ ). Tidak ada perbedaan antara jenis pekerjaan dengan tekanan darah (rerata kantor vs sistol adalah  $121,88 \pm 11,630$ ; operator vs sistol  $116 \pm 11,673$ ; mekanik vs sistol  $121,47 \pm 11,560$ ;  $p=0,156$  dan kantor vs diastol adalah  $82,50 \pm 10,351$ ; operator vs diastol adalah  $80,06 \pm 8,585$ ; dan mekanik vs diastol adalah  $81,76 \pm 10,146$ ;  $p=0,716$ ). Tidak ada hubungan antara asupan lemak dengan persentase lemak tubuh total dan tekanan darah (asupan lemak vs persentase lemak tubuh total,  $R=-0,074$ ,  $p=0,457$ ; asupan lemak vs sistol,  $R=0,001$ ,  $p=0,993$ ; asupan lemak vs diastol,  $R=-0,141$ ,  $p=0,157$ ).

**Kesimpulan:** Ada perbedaan yang signifikan antara jenis pekerjaan terhadap persentase lemak tubuh total pekerja ( $p<0,05$ ). Tidak ada perbedaan antara jenis pekerjaan terhadap tekanan darah pekerja ( $p>0,05$ ). Tidak ada hubungan antara asupan lemak terhadap persentase lemak tubuh total pekerja ( $p>0,05$ ). Tidak ada perbedaan antara asupan lemak terhadap tekanan darah pekerja ( $p>0,05$ ).

**Kata Kunci:** *Jenis pekerjaan, asupan lemak, persentase lemak tubuh, tekanan darah, pekerja*

## **RELATIONSHIP BETWEEN THE TYPE OF WORK AND FAT INTAKE WITH BODY FAT PERCENTAGE AND BLOOD PRESSURE ON WORKERS**

### **ABSTRACT**

**Background:** *The development of the industry followed by the development of diseases in workers. Exposure in the workplace contribute to the health status of workers. Several studies have found that hypertension in workers affected by the type of work, workload, obesity, noise, heat stress, working hours, and psychosocial stress. In addition to hypertension, workers are also at risk for obesity as indicated by the accumulation of body fat.*

**Objectives:** *To identify the difference between the type of work with the body fat percentage and blood pressure in workers.*

*To identify the relationship between workers' fat intake with the body fat percentage and blood pressure in workers.*

**Methods:** *This is cross sectional study with the subject are workers who works in the second shift (14.00-22.00 WIB) meeting inclusion and exclusion criteria. One hundred and three subjects selected by purposive sampling method. Blood pressure is measured by using a Sphygmomanometer and body fat percentage was measured using Bio Impedance Analyzer (BIA). Hypothesis were tested using the Kruskal Wallis and Spearman's correlation test.*

**Results:** *A total of 103 respondents categorized by the type of work, 8 people at office group, 78 people at operator group, and 17 people at mechanical group. There is significant difference between the type of work and total body fat percentage (mean office vs total body fat percentage is  $23,96 \pm 5,775$ ; operator vs total body fat percentage  $31,32 \pm 5,727$ ; mechanic vs total body fat percentage  $22,20 \pm 4,649$ ;  $p=0,000$ ). There is no difference between the type of work and blood pressure (mean office vs systole is  $121,88 \pm 11,630$ ; operator vs systole  $116 \pm 11,673$ ; mechanic vs systole  $121,47 \pm 11,560$ ;  $p= 0,156$  and mean office vs diastole is  $82,50 \pm 10,351$ ; operator vs diastole  $80,06 \pm 8,585$ ; mechanic vs diastole  $81,76 \pm 10,146$ ;  $p=0,716$ ). There are no difference between fat intake and total body fat percentage and blood pressure (fat intake vs total body fat percentage,  $R=-0,074$ ,  $p=0,457$ ; fat intake vs systole,  $R=0,001$ ,  $p=0,993$ ; fat intake vs diastole,  $R=-0,141$ ,  $p=0,157$ ).*

**Conclusion:** *There is significant difference between the type of work with workers' total body fat percentage ( $p<0.05$ ). There is no difference between the type of work with workers' blood pressure ( $p>0.05$ ). There is no relationship between fat intake with workers' total body fat percentage ( $p>0.05$ ). There is no relationship between fat intake with workers' blood pressure ( $p>0.05$ ).*

**Keywords:** *Type of work, fat intake, body fat percentage, blood pressure, workers*