

## ABSTRAK

### PERBEDAAN TINGKAT ASUPAN ZAT GIZI MAKRO, KUALITAS TIDUR, DAN STATUS GIZI PADA PETUGAS KEAMANAN *SHIFT* PAGI DAN MALAM DI UNIVERSITAS JENDERAL SOEDIRMAN

**Latar Belakang:** Sistem kerja *shift* pada petugas keamanan berdampak pada kualitas tidur. Kualitas tidur yang rendah berpengaruh pada peningkatan asupan zat gizi makro dan akan bermanifestasi kepada status gizi. Penelitian ini bertujuan untuk mengetahui perbedaan tingkat asupan zat gizi makro, kualitas tidur, dan status gizi pada petugas keamanan *shift* pagi dan malam di Universitas Jenderal Soedirman.

**Metodologi:** Desain penelitian ini menggunakan *cross-sectional*. Total responden sebesar 66 petugas keamanan (31 *shift* pagi dan 35 *shift* malam) dengan penentuan sampel menggunakan teknik *random sampling*. Variabel penelitian tingkat asupan zat gizi makro, kualitas tidur, dan status gizi. Instrumen menggunakan stadiometer, BIA (*Bioelectrical Impedance Analysis*), *food recall* 2x24jam, dan kuesioner PSQI (*Pittsburgh Sleep Quality Index*). Analisis data menggunakan uji *Independent Samples T* dan *Mann Whitney U* dengan nilai signifikansi  $p < 0,05$ .

**Hasil Penelitian:** Petugas keamanan seluruhnya laki-laki dengan didominasi kelompok usia 30-49 tahun (78,8%) dan tingkat pendidikan maksimal SMA/ sederajat (83,3%). Status kepegawaian petugas keamanan *shift* pagi memiliki proporsi seimbang kontrak dan non-kontrak, sedangkan *shift* malam didominasi pegawai kontrak (82,9%). Tingkat asupan zat gizi makro tidak berbeda signifikan antara petugas keamanan *shift* pagi dan malam; energi (82,6(35,4-198,2)% dan 80,2(37,9-159,3)%, nilai  $p$  0,445); protein (95,6(50,3-170,3)% dan 92,6(41,4-198,1)%, nilai  $p$  0,852); lemak (125,7 $\pm$ 49,4% dan 117,9 $\pm$ 43,7%, nilai  $p$  0,498); karbohidrat (70(30,4-194,8)% dan 68,4(31,9-118,3)%, nilai  $p$  0,415). Kualitas tidur tidak berbeda signifikan antara petugas keamanan *shift* pagi dan malam, total skor PSQI (9(4-12) dan 9(5-13), nilai  $p$  0,876). Status gizi tidak berbeda signifikan antara petugas keamanan *shift* pagi dan malam, IMT (24,4 $\pm$ 3,9kg/m<sup>2</sup> dan 24,2 $\pm$ 4,7kg/m<sup>2</sup>, nilai  $p$  0,874)

**Kesimpulan:** Tidak terdapat perbedaan tingkat asupan zat gizi makro, kualitas tidur, dan status gizi pada petugas keamanan *shift* pagi dan malam di Universitas Jenderal Soedirman.

**Kata kunci:** indeks massa tubuh, kualitas tidur, pekerja *shift*, tingkat asupan zat gizi makro

## ABSTRACT

### DIFFERENCES IN LEVEL OF MACRONUTRIENT INTAKE, SLEEP QUALITY, AND NUTRITIONAL STATUS OF MORNING AND NIGHT SHIFT SECURITY OFFICER AT JENDERAL SOEDIRMAN UNIVERSITY

**Background:** The shift work system in security officers has an impact on sleep quality. Low sleep quality affects the increase in macronutrient intake and will manifest in nutritional status. This study aims to determine the differences in macronutrient intake levels, sleep quality, and nutritional status of morning and night shift security officers at Jenderal Soedirman University.

**Methods:** This study design used cross-sectional. The total respondents were 66 security officers (31 morning shifts and 35 night shifts) with sample determination using random sampling techniques. The research variables were the level of macronutrient intake, sleep quality, and nutritional status. The instruments used were stadiometer, BIA (Bioelectrical Impedance Analysis), 2x24hour food recall, and PSQI (Pittsburgh Sleep Quality Index) questionnaire. Data analysis used the Independent Samples T and Mann Whitney U tests with a significance value of  $p < 0.05$ .

**Results:** All security officers were male, dominated by the 30-49 year age group (78.8%), and maximum education level of senior high school/equivalent (83.3%). The employment status of morning shift security officers had a balanced proportion of contract and non-contract, while the night shift was dominated by contract employees (82.9%). The level of macronutrient intake did not differ significantly between morning and night shift security officers; energy (82.6(35.4-198.2)% and 80.2(37.9-159.3)%,  $p$  value 0.445); protein (95.6(50.3-170.3)% and 92.6(41.4-198.1)%,  $p$  value 0.852); fat (125.7 $\pm$ 49.4% and 117.9 $\pm$ 43.7%,  $p$  value 0.498); carbohydrates (70(30.4-194.8)% and 68.4(31.9-118.3)%,  $p$  value 0.415). Sleep quality did not differ significantly between morning and night shift security officers, total PSQI score (9(4-12) and 9(5-13),  $p$  value 0.876). Nutritional status did not differ significantly between morning and night shift security officers, BMI (24.4 $\pm$ 3.9kg/m<sup>2</sup> and 24.2 $\pm$ 4.7kg/m<sup>2</sup>,  $p$  value 0.874)

**Conclusion:** There were no differences in the levels of macronutrient intake, sleep quality, and nutritional status among morning and night shift security officers at Jenderal Soedirman University.

**Keywords:** body mass index, macronutrient intake, shift worker, sleep quality