Analysis of The Relationship between Circadian Rhythms with Fatigue and Occupational Stress On Women Informal Sector Workers in Makassar

Masyitha Muis¹, M.Rekar Sudirman¹, A.Ummu Salma², Bahar Burhanuddin³

¹Departemen of Occupational Safety and Health,²Departement of Biostatistics Public Health Faculty Hasanuddin University,³Department of Nutrition Public Health Faculty Hasanuddin University

Humans have biological rhythms known as circadian rhythms that are controlled by biological clocks and last for 24 hours. The Circadian rhythms are controlled by the suprachiasmatic nucleus (SCN) that is part of the hypothalamus. The Circadian rhythm will regulate sleep and wake times, urine production, thermoregulation, endocrine systems, and changes in blood pressure.

The design of this study was Observational Analytic by using cross sectional study design through interview and filling of general data questionnaire and Survay diagnostic stress questionnaire and the measurement of fatigue by using Reaction Timer at women informal sector workers who worked at night. Then compare it to women informal sector workers who worked at the day.

The statistical test of circadian rhythm with fatigue based on young age and old age in the day workers have value of Chi-square test p = 0,623 and p = 0,448 ie p value 0,05, and value of phi respectively 0,139 and 0,287. The statistical test of circadian rhythm with work fatigue based on young age and old age at the night workers have value of Chi-square test p = 0,123 and old age p = 0,370 i.e. p> 0,05, and phi value respectively 0,551 and 0,231> 0,05. Based on the multivariate statistical test, the body temperature variable value = 0,010 <0,05.

It's conclude that. Normal or abnormal body temperature has an effect with occupational stress. There is a difference between the occupational stress levels of night workers and day workers as well as the level of fatigue experienced by night and day workers. Body temperature is the factor most associated with fatigue.

Keywords : circadian rhythms, fatigue, occupational stress, women informal sector workers.