Pengaruh pajanan debu Respirable PM2.5 terhadap kejadian gangguan fungsi Paru pedagang tetap di Terminal Terpadu kota Depok tahun 2012 = the Influence of Respirable Dust (PM2.5) exposure to Lung function impairment among bus station sellers in Depok integrated terminal, 2012

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Abstrak

Penelitian ini bertujuan melihat hubungan PM2.5 terhadap gangguan fungsi paru pada pedagang tetap di Terminal Terpadu Kota Depok. Hasil penelitian menunjukkan konsentrasi PM2.5 ambien mencapai 230μg/m3. Didapatkan gangguan fungsi paru sebesar 77,4% dari 71 sampel (tipe restriktif 74,6%; obstruktif 2,8%). Ditemukan hubungan signifikan antara gangguan fungsi paru dengan intake PM2.5 (p=0,004) dan rokok (kebiasaan merokok(p=0,019); jumlah rokok(p=0,001); dosis inhalasi PM2.5 (p=0,001)). Tidak ditemukan hubungan signifikan antara gangguan fungsi paru dengan umur, jenis kelamin, status gizi, riwayat penyakit, lama kerja, dan masa kerja. Uji multivariat menunjukkan intake PM2.5 memililki pengaruh terbesar terhadap gangguan fungsi paru (p=0,007; OR=6,5). Selanjutnya diperlukan perbaikan lingkungan terminal, perubahan perilaku merokok, dan manajemen risiko melalui ARKL.

This study aimed to determine the relationship between PM2.5 and the impaired lung function. PM2.5 ambient concentration reached 230μg/m3. Pulmonary dysfunction was found 77.4% of 71 respondents (74.6% restrictive; 2.8% obstructive). There were significant associations between lung function and PM2.5 intake (p=0.004), smoking (smoking habits (p=0.019); number of cigarettes/day (p=0.001); and PM2.5 inhaled dose from cigarettes (p=0.001)). There were no significant relationships with age, sex, nutritional status, history of illnesses, work-hours, and work-years. Multivariate test revealed PM2.5 intake as a main contributor on lung function impairment (p=0.007; OR=6.5). Further improvements on enviromnent, changes in smoking behavior, and risk management through ERHA study are necessary.