Analisis risiko kesehatan lingkungan Pajanan Partikulat (PM2.5), Nitrogen Dioksida (NO2), dan Benzo(a)pyrene pada siswa di Tiga Sekolah Dasar Negeri Jakarta Barat tahun 2019 = Health Risk Analysis of Particulate Exposure (PM2.5), Nitrogen Dioxide (NO2), and Benzo (a) pyrene in Students in Three West Jakarta State Elementary Schools in 2019.

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Abstrak

Partikulat (PM2.5), nitrogen dioksida (NO2), dan benzo(a)pyrene diketahui sebagai polutan yang sering ditemukan di udara dari sisa/hasil pembakaran bahan bakar kendaraan bermotor yang dapat mempengaruhi kualitas udara terutama pada populasi rentan seperti anak-anak dimana sebagian waktunya dihabsikan di sekolah.
Penelitian ini bertujuan untuk adalah mengestimasi risiko pajanan partikulat (PM2.5), nitrogen dioksida (NO2), dan benzo(a)pyrene pada siswa di tiga sekolah dasar negeri Jakarta Barat.
Penelitian ini menghasilkan konsentrasi PM2.5 terkecil dan terbesar di SDN Cengkareng Barat. Sedangkan konsentrasi NO2 terkecil di SDN Cengkareng Barat dan terbesar di SDN Cengkareng Timur. Sementara konsentrasi benzo(a)pyrene terkecil di SDN Cengkareng Barat dan terbesar di SDN Cengkareng Timur.
Kesimpulan dari penelitian ini, risiko non karsinogen pajanan PM2.5, NO2, dan benzo(a)pyrene dari ketiga sekolah memiliki nilai RQ ≤ 1 atau dikatakan aman sedangkan risiko kesehatan karsinogenik pajanan benzo(a)pyrene memiliki nilai E > 4 yang berarti siswa di sekolah berisiko.
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Particulates (PM2.5), nitrogen dioxide (NO2), and benzo (a) pyrene are known to be pollutants that are often found in air from residual combustion of motorized vehicles that can affect air quality especially in vulnerable populations such as children where some of the time is validated at school.
This study aims to estimate the risk ofparticulate exposure (PM2.5), nitrogen dioxide (NO2), and benzo (a) pyrene in students in three West Jakarta state elementary schools.
This research resulted in the smallest and largest PM2.5 concentration in Cengkareng Barat Elementary School. While the smallest NO2 concentration was in SDN Cengkareng Barat and the largest was in SDN Cengkareng Timur. While the smallest concentration of benzo (a) pyrene is in West Cengkareng SDN and the largest is in East Cengkareng SDN.
Conclusions from this study, the risk of non-carcinogen exposure to PM2.5, NO2, and benzo (a) pyrene from the three schools has a RQ value of ≤ 1 or is said to be safe while the carcinogenic risk of benzo exposure (a) pyrene has an E value> 4 which means students at risk school.