Analisis Hubungan Paparan PM2,5 di Udara Ruang Dalam Rumah dengan Kejadian TB Paru BTA Positif di Kota Cirebon Tahun 2015 = Analysis of Associations of PM2,5 Exposure in the Indoor Air with smear positive pulmonary TB incidence in Cirebon City 2015 / Intan Pandu Pertiwi

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Abstrak

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PM2,5 merupakan salah satu indikator adanya pencemaran udara dalam ruang (indoor air pollution). Indonesia termasuk peringkat kelima jumlah kasus TB terbesar di dunia, dan Kota Cirebon merupakan kota dengan angka penemuan kasus TB paru tertinggi di Provinsi Jawa Barat. Tujuan penelitian ini adalah untuk menganalisis hubungan PM2,5 di udara ruang dalam rumah dengan kejadian TB paru BTA positif di Kota Cirebon.
Disain penelitian ini adalah kasus kontrol. Kriteria kasus adalah penderita baru TB Paru yang berusia minimal 15 tahun dan hasil pemeriksaan sputum positif berdasarkan konfirmasi laboratorium Puskesmas periode November 2014 s/d April 2015 serta bertempat tinggal di Kota Cirebon. Kriteria kontrol adalah tetangga terdekat kasus yang tidak menderita TB paru, tidak memiliki gejala klinis mirip TB paru berdasarkan konfirmasi dari petugas puskesmas setempat, berusia minimal 15 tahun dan bertempat tinggal di Kota Cirebon. Total jumlah sampel adalah 168 responden dengan jumlah kasus adalah 84 responden, dan kontrol 84 responden. Konsentrasi PM2,5 di udara ruang dalam rumah berpengaruh terhadap kejadian TB paru BTA positif di Kota Cirebon (OR 7,034; 95% CI 3,570 ? 13,860). Variabel lainnya yang signifikan adalah jenis kelamin (OR 3,947; 95% CI 2,026-7,692), lama berada di rumah (OR 2,682; 95% CI 1,430 ? 5,028), jenis bahan bakar memasak (OR 3,260; 95% CI 1,116-9,523), status merokok (OR 3,034; 95% CI 1,446 ? 6,365), jenis atap rumah (OR 3,713; 95% CI 1,945 ? 7,089), dan laju ventilasi kamar (OR 2,493; 95% CI 1,264 ? 4,918). Hasil analisis multivariat dengan regresi logistik menunjukkan bahwa konsentrasi PM2,5 dalam rumah berhubungan dengan kejadian TB paru BTA positif (OR adjusted 6,14; 95% CI 2,904-12,975) dikontrol oleh variabel jenis kelamin, jenis atap rumah, dan laju ventilasi kamar. Masih banyak rumah yang belum dilengkapi jendela atau ventilasinya kurang, atap rumah tidak dilengkapi oleh langit-langit, sehingga masih banyak rumah yang tidak memenuhi kriteria rumah sehat. Diperlukan upaya peningkatan pengetahuan dan kesadaran masyarakat tentang kriteria rumah sehat, dan masyarakat agar menjaga pola perilaku hidup bersih dan sehat, termasuk tidak merokok.
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ABSTRACT
PM2,5 is one indicator of indoor air pollution. Indonesia is the fifth largest number of TB cases in the world, and the city of Cirebon is a city with the highest rate of pulmonary TB case detection in West Java province. The purpose of this study was to analyze the relationship between PM2,5 in the indoor air and the incidence of smear-positive pulmonary TB in the city of Cirebon.
The design of this study was a case-control. Cases criteria were patients with TB minimum age 15 years old and had positive sputum test confirmed with public health care laboratory test from November 2014 to April 2015 and lived in Cirebon City. Controls criteria were the nearest neighbor not suffering TB and had no clinical symptomps similar to TB confirmed by the local public health centre officials, at least 15 years old and resides in Cirebon city. The total number of samples is 168 respondents by the number of cases is 84 respondents, and 84 control respondents.
PM2,5 concentration in the indoor air affected the incidence of smearpositive pulmonary TB in Cirebon city (OR 7.034; 95% CI 3.570 to 13.860).
Significant other variables are gender (OR 3.947; 95% CI 2.026 to 7.692), indoorstay period (OR 2.682; 95% CI 1.430 to 5.028), the type of cooking fuel (OR 3.260; 95% CI 1.116 to 9.523), smoking status (OR 3.034; 95% CI 1.446 to 6.365), types of roofs (OR 3.713; 95% CI 1.945 to 7.089), and the ventilation rate of the room (OR 2.493; 95% CI 1.264 to 4.918). Results of multivariate analysis using logistic regression modeling showed that concentrations of PM2,5 in the indoor air associated with the incidence of pulmonary TB smear positive (OR adjusted 6,14; 95% CI 2.904 - 12.975) after being controlled by the variable gender, roof type of the house, and the ventilation rate of the room. There are still many homes are not equipped with a window or a lack of ventilation, the roof of the house is not completed by the ceiling, so there is still a lot of homes that do not meet the criteria for a healthy home. Necessary efforts to increase knowledge and awareness about the criteria of a healthy home, and the community to maintain a clean and healthy lifestyle, including not smoking.;PM2,5 is one indicator of indoor air pollution. Indonesia is the fifth largest number of TB cases in the world, and the city of Cirebon is a city with the highest rate of pulmonary TB case detection in West Java province. The purpose of this study was to analyze the relationship between PM2,5 in the indoor air and the incidence of smear-positive pulmonary TB in the city of Cirebon.
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