Faktor lingkungan rumah yang mempengaruhi hubungan kadar PM10 dengan kejadian ISPA pada balita di Wilayah Puskesmas Curug Kabupaten Tangerang tahun 2004

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Abstrak

Penyakit ISPA pada balita di Puskesmas Curug Kabupaten Tangerang selama 3 tahun berturut-turut selalu menempati posisi 3 besar penyakit dan berdasarkan laporan Puskesmas Curug tahun 2003 menempati urutan pertama (26,8%) dari 10 besar penyakit yang ada. Hal ini diduga karena kondisi fisik rumah, PM10 dan status gizi yang menyebabkan tingginya penyakit ISPA. Oleh karena itu perlu dilakukan penelitian faktor lingkungan rumah yang mempengaruhi hubungan kadar PM10 dan gizi dengan kejadian ISPA.
Desain penelitian menggunakan cross sectional, dirnana data dikumpulkan secara bersamaan dengan jumlah sampel sebanyak 120 rumah tangga yang ada balitanya (14 hari 59 bulan) secara proporsional berdasar jumlah balita yang ada di wilayah Puskesmas Curug Kabupaten Tangerang.
Faktor-faktor yang diteliti adalah PM10, status gizi dan faktor lingkungan rumah (jenis lantai, pencahayaan, ventilasi, kepadatan hunian rumah, kepadatan hunian kamar, penggunaan obat nyamuk, asap rokok dan bahan bakar) yang merupakan confounding PM10 dengan kejadian ISPA pada balita.
Hasil analisis bivariat dengan derajat kepercayaan 95% menunjukkan 8 variabel yang berhubungan dengan kejadian ISPA pada balita, yaitu PM10 dengan nilai p = 0,000 (26,047; 3,362-201,783), status gizi p = 0,001 (5,980; 2,090-17,110), pencahayaan p = 0,001 (0,841; 0,756-0,9937), ventilasi p = 0,019 (2,565; I,225-5,361), kepadatan huni kamar p = 0004 (4,930; 1,682-14,451), penggunaan obat nyamuk p = 0,000 (7,115; 1,142-16,114), asap rokok p = 0,000 (4,241; 1,172-15347), bahan bakar p = 0,027 (4,680; 1,259-17397).
Hasil analisis multivariat menunjukkan bahwa PM10, kepadatan hunian kamar, penggunaan obat nyamuk, asap rokok, dan status gi i mempunyai nilai p C 0,05. Pemodelan lengkap antara variabel utama (PM10) dan confounding (kepadatan hunian kamar, penggunaan obat nyamuk, asap rokok) termasuk interaksi, menunjukkan tidak ada interaksi di antara variabel-variabel tersebut.
Penilaian confounding menunjukkan bahwa variabel kepadatan human kamar dan obat nyamuk merupakan confounding terhadap PMI0 dengan kejadian ISPA ppada balita (indexs confounding > 10%). Sehingga dapat disimpulkan bahwa kadar PM10 berhubungan dengan kejadian ISPA pada balita setelah variabel kepadatan hunian kamar dan obat nyamuk dikendalikan.
Dari penelitian ini disarankan untuk menghindari pemakaian obat nyamuk bakar dan rumah tidak padat murni sehingga mengurangi kadar PMIO. Risiko kejadian ISPA dapat dikutangi dengan membuka jendela membuka jendela setiap hari, luas ventilasi rumah minimal 10% luas lantai, tidak merokok dalam rumah, membuat lubang asap dapur, dan pemantauan tumbuh kembang anak dengan melakukan penimbangan secara rutin setiap bulan.
.....House Environmental Factors that Influence the Corellation between the Level of PM10 with the Incedence of Acute Respiratory Infections in Toddlers in Curug Public Health Center Area, Tangerang District, in 2004The incidence of Acute Respiratory Infections (ART) ini toddlers in Curug public health centre, Tangerang District, in 3 consecutive years HAS always BEEN Ranked in the TOP three of all cases of diseases. The report from Curug public Health Centre in 2004 shows that ARI was ranked first (26,8%)

out of to diseases in that particular public health centre. It is suspected that physical condition or the house, the level of PM10, and nutritional status are the factors causing the high incidence or ART.
Design of study is cross sectional, where data were colleted simultaneously. The number of samples is 120 house holds that have toddlers (14 day-59 months old). The number of toddlers was proportional to the number of toddlers living in the area surrounding Curug public health centre.
Factors being studied werf PM10, nutritional status, in house environmental factors (type of floor, the amount of light ini the house, ventilation, density of house occupants, density of occupants in a room, the use of mosquito repellent, cigarette smoke, and fuel), which are the confounding factors of PMIO with the incidence of ari in toddlers.
The result of bivariate analysis with degree of confidence of 95% show that there are & variables that correlate with incidence or ari in toddlers, namely PMI0 with pvalue = 0,000 (26.047,3,362-201.78). Nutritional status p value = 0,001 (5,980 ; 2,090-17,110), Ventilation p value = 0,019 (2,565 ; 1,225 - 5,36!). Density of occupants in a form p value = 0,004 (4,920 ; 1,682 - 14,451), the use of mosquito repellent p value - 0,000 (7,115 ; 1,142 - 16,114), Cigarette smoke p value = 0,000 (4,241 ; 1,172 - 15,347) fuel p value = 0,027 (4,680 ; 1,259-17.397).
The results of multivariate analysis show that PM10, density of occupant in a room, and the use of mosquito repellent, cigarette smoke, and nutritional status have p value <0,05, complete mode lung between the main variable (PM10) and confounding factors (density of occupants in a room, /the use of mosquito repellent, and cigarette smoke), as well as the interaction, shows that there is no interactions between those variables. Confounding show that the variables such as density of occupants in the a room and the use of cigarette smoke are the confounding factors to PM10 with the incidence of ari in toddlers (confounding index >10%). This it can be concluded that the level of PM10 correlates with the incedence of ari in toddlers , when the two confounding factors are under control.
It can be recommended from this study that the use of mosquito repellent should be avoided and the density of occupants in the house is reduced, as to decrease the level of PM1Q. The risks of ari can be minimized by opening windows daily, making a hole for smoke to escape from the kitchen, ensuring that the ventilation in the house is at least 10% of total house area, not smoking inside the house, and routinely maintain the toddlers health each month for example is routine body weighing).