

**THE RELATIONSHIP BETWEEN THE PHYSICAL ENVIRONMENT OF  
THE HOUSE AND PARENTAL HABITS WITH THE INCIDENCE OF  
PNEUMONIA IN TODDLERS**

(Case Study in the Working Area of Waru Health Center, Sidoarjo Regency, 2024)

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**ABSTRACT**

The spread of pneumonia cases among under-fives in East Java Province dominates the main rank in Indonesia with the incidence rate increasing every year. In 2020-2022, there were 685, 764, 774 cases of pneumonia in children under five in the Waru Health Center working area. The purpose of this study was to determine the relationship between the condition of the physical environment of the house and parental behavior with the incidence of pneumonia in toddlers in the Waru Health Center working area in 2024.

This type of analytic observational study used a case-control design. Sampling was done using probability sampling technique with simple random sampling. Independent variables of the physical environment of the house (flooring, ventilation, temperature, lighting, humidity, kitchen smoke holes, occupancy density) parental habits (window opening habits, smoking habits, house cleaning habits). The dependent variable was the incidence of pneumonia among children under five in the Waru Health Center working area. The population in the study was 330 toddlers with a total sample of 92 respondents. The data obtained were analyzed univariate and bivariate with the Chi-Square Test.

The results obtained ( $p\text{-value} < 0.05$ ) mean that the physical environment of the house and parental habits are associated with the incidence of pneumonia in toddlers, namely ventilation ( $p\text{-value} = 0.001$ ), temperature ( $p\text{-value} = 0.020$ ), lighting ( $p\text{-value} = 0.012$ ), humidity ( $p\text{-value} = 0.003$ ), occupancy density ( $p\text{-value} = 0.022$ ), the habit of opening windows ( $p\text{-value} = 0.003$ ) and smoking habits ( $p\text{-value} = 0.0036$ ). Variables that were not associated with the incidence of pneumonia in under-fives were flooring ( $p\text{-value} = 0.807$ ), kitchen smoke holes ( $p\text{-value} = 0.832$ ), house cleaning habits ( $p\text{-value} = 0.143$ ).

The conclusion of the study is that there is a relationship between the condition of the physical environment of the house and the habits of parents with the incidence of pneumonia in toddlers. It is recommended to prioritize home sanitation and support healthy behavior by opening windows, and cleaning the house regularly.

**Keywords:** Pneumonia, Physical Environment, Habits.

**HUBUNGAN KONDISI LINGKUNGAN FISIK RUMAH DAN  
KEBIASAAN ORANG TUA DENGAN KEJADIAN  
PENYAKI PNEUMONIA PADA BALITA**

(Studi Kasus di Wilayah Kerja Puskesmas Waru Kabupaten Sidoarjo Tahun 2024)

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**ABSTRAK**

Penyebaran kasus pneumonia pada balita di Provinsi Jawa Timur mendominasi peringkat utama di Indonesia dengan angka insidensinya meningkat setiap tahun. Pada tahun 2020-2022 ditemukan 685, 764, 774 kasus pneumonia pada balita di wilayah kerja Puskesmas Waru. Tujuan dalam penelitian ini untuk mengetahui hubungan kondisi lingkungan fisik rumah dan kebiasaan orang tua dengan kejadian penyakit pneumonia pada balita di wilayah kerja Puskesmas Waru pada tahun 2024.

Jenis penelitian observasional analitik menggunakan desain *case-control* Pengambilan sampel dengan teknik probability sampling dengan simple random sampling. Variabel bebas lingkungan fisik rumah (lantai, ventilasi, suhu, pencahayaan, kelembaban, lubang asap dapur, kepadatan hunian) kebiasaan orang tua (kebiasaan membuka jendela, kebiasaan merokok, kebiasaan membersihkan rumah). Variabel terikat kejadian penyakit pneumonia balita di wilayah kerja Puskesmas Waru. Populasi dalam penelitian 330 balita dengan sampel kasus dan kontrol keseluruhan 92 responden. Data yang diperoleh dianalisis secara univariate dan bivariate dengan *Uji Chi-Square*.

Hasil penelitian didapatkan ( $p\text{-value}<0,05$ ) yang berarti lingkungan fisik rumah dan kebiasaan orang tua berhubungan dengan kejadian pneumonia pada balita yaitu ventilasi ( $p\text{-value}=0,001$ ), Suhu ( $p\text{-value}=0,020$ ), pencahayaan ( $p\text{-value}=0,012$ ), kelembaban ( $p\text{-value}=0,003$ ), kepadatan hunian ( $p\text{-value}=0,022$ ), kebiasaan membuka jendela ( $p\text{-value}=0,003$ ) dan kebiasaan merokok ( $p\text{-value}=0,0036$ ). Variabel yang tidak berhubungan dengan kejadian pneumonia pada balita yaitu lantai ( $p\text{-value}=0,807$ ), lubang asap dapur ( $p\text{-value}=0,832$ ), kebiasaan membersihkan rumah ( $p\text{-value}=0,143$ ).

Kesimpulan penelitian yakni terdapat hubungan antara kondisi lingkungan fisik rumah dan kebiasaan orang tua dengan kejadian penyakit pneumonia pada balita. Disarankan untuk lebih mengutamakan sanitasi rumah serta didukung perilaku sehat dengan membuka jendela, dan membersihkan rumah secara berkala.

**Kata Kunci :** Pneumonia, Lingkungan Fisik, Kebiasaan.