Hubungan Antara Pencahayaan Rumah, Kepadatan Penghuni dan Kelembaban, dan Risiko Terjadinya Infeksi Tb Anak SD di Kabupaten Jember

The Association Between House Light, Inhabitant Density, and Humidity, and the Risk of Tuberculosis Infection Among Primary School Children in Jember District

Irma Prasetyowati*, Chatarina Umbul Wahyuni**
* Bagian Epidemiologi dan Biostatistika Kependudukan FKM Universitas Jember
**Departemen Epidemiologi, FKM Universitas Airlangga. Surabaya

ABSTRACT

Background: Tuberculosis (TB) affected adults and children. The incidence of TB in children was increasing in Jember, East Java. A study from RS Paru Jember found that 17 (11%) students were infected by TB. This figure exceeded that of national level. This study aimed to examine the association between lack of house light, overcrowding, humidity, and the risk of TB infection among elementary school children in Jember.

Methods: This was a case control study conducted in Jember, from January to June 2008. A sample consisting of 17 children with TB infection, and 51 children without TB infection was selected for this study. The instrument used in this study included questionnaire, lux meter (for light), and hygrometer (for humidity). Logistic regression and ORs were used to estimate the risk of TB infection.

Results: Results showed an association between lack of house light (OR= 16.9; 95%CI= 4.1 to 69.8), overcrowding (OR= 4.6; 95%CI= 1.4 to 14.8), and humidity (OR= 1.3; 95%CI= 1.1to 1.5), and the risk of TB infection.

Conclusion: Lack of house light, overcrowding, and humidity were associated with increased risk of TB infection. It is suggested that people open the windows and doors every morning, and use some glass roof. Jurnal Kedokteran Indonesia: 1 (1): 88-93

Keywords: lighting, overcrowding, humidity, child TB infection