Kualitas Udara dalam Ruangan dan Faktor-Faktor yang Berpengaruh Terhadap Kejadian Sick Building Syndrome (SBS) di Gedung Depkes RI Jakarta Tahun 2008 = Indoor Air Quality and Factors Affecting the Incidence of Sick Building Syndrome (SBS) in the Ministry of Health Building, Jakarta

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Abstrak

Kualitas udara dalam ruangan kelja yang tidak memenuhi persyaratan kesehatan dapat menyebabkan ruangan kerja tidak nyaman; dampak negatif terhadap karyawan berupa keluhan kesehatan yang dikenal dengan istilah sick building syndrome 6985). Keluhan SBS biasanya tidak terlalu parah dan tidak diketahui penyebabnya, tetapi mengurangi produktivitas kerja. Sejumlah penelitian pada lingkungan yang berbeda menunjukkan bahwa faktor-faktor intcmal dan ekstemal mempengaruhi kejadian SBS.
Informasi mengenai kualitas udara dalam mangan gedung perkantoran Departemen Kesehatan (Dcpkes) belum dikctahui, walaupun sudah banyak Iaporan tentang keluhan SBS. Tujuan penelitian untuk memperoleh informasi mengenai kualitas udara di gcdung Depkes Jakarta, Serta kejadian SBS dan ihktor-faktor yang mempengaruhinya. Menggunakan studi cross-seczional hersifat deskriptif analitik; melibatkan 242 karyawan Depkes scbagai responden. Kriteria respondcn adalah orang sehat tidak menderita penyakit sesuai diagnosa dokter dan tidak sedang hamil. Untuk memperoleh data mengenai, karakteristik, psikologis dan posisi kelja yang ergonomik dari responden menggunakan kucsioner teramh dan terstruktur. Sedangkan pengukuran konsentrasi NO2, CO, C0;, SO2, H2S, NH; and PM|0 scbagai indikator kualitas udara dilakukan pada 10 ruangan.
Kualitas udara dalam ruangan masih memcnuhi persyaratan scsuai Keputusan Mentcri Kesehatan No. 1405/Menkes/SK/XI/2002. Kadar NO2, SO2, and NH; terdeteksi pada tiga ruangan. Konsenlrasi C0 pada setiap ruangan sama; C02, H2S, and PMN lerdetcksi pada setiap ruangan dengan konscntrasi berbeda-beda. Pencahayaan pada seluruh ruangan memenuhi pcrsyaratan (> |00 lux). Di Iain pihak, suhu dan kelembaban pada beberapa ruangan melebihi persyaratan, namun secara umum nilai rata-ratanya masih memenuhi persyaratan.
Prevalensi SBS sebesar 19%, dengan gejala tcrbanyak berupa kelelahan, rasa sakit dan kekakuan pada bahu dan Ieher (50%); flu, batuk dan bersin-bersin (49.6%); Serta pusing, sakit kepala dan kesulitan konsentrasi (38.4%). Suhu, posisi keqja yang ergonomik, jenis kelamin dan umur mempcngaruhi kejadian SBS secara bemmakna, dimana suhu merupakan variabel yang paling dominan.
Kualitas udara masih memenuhi persyaratan kesehatan, untuk Iingkungan fisik dalam ruangan kenja nilai rata-rata pengukuran masih memenuhi persyaratan, walaupun ada ruangan yang suhu atau kelembaban tidak memcnuhi persyaratan kesehatan, Suhu, posisi kerja yang ergonomik, jenis kelamin dan umur sangat mempengaruhi kejadian SBS. Pemeliharaan pendingin ruangan serta posisi kerja yang ergonomik merupakan upaya pencegahan yang harus mcndapat perhatian dalam program SBS.
.....Indoor air quality that does not meet the health standard requirement may lead to uncomfortable working environment and causes negative impacts to the workers in the fomm of health complaints known as sick building .syndrome (SBS). Usually the complaints are not very serious and the sources are unknown;

however it could reduce work productivity. A number of studies in different settings have indicated that several internal and external factors influence the incidence of SBS.

Infomation on the indoor air quality of the Ministry of Health (MOH) building has not yet been known, in spite ofthe SBS complaints that have been reported. The purpose of this study is to obtain infomation on the indoor air quality ofthe MOH building Jakarta, as well as the incidence of SBS and its' underlying thctors. Using cross-sectional study which is descriptive-analytic; the study involved 242 MOH employees as respondents. The criteria ofthe respondents were healthy individuals not suffering from diseases as diagnosed by a physician and not pregnant. To obtain data on the characteristics, psychological and ergonomic working position of the respondents, guided and structured questionnaire were used. Whereas measurements of NO;, CO, CO2, S02, I-I2S, NH, and PM10 concentrations as indicators of air quality were undertaken in ten rooms.

Indoor air quality still meets the standard requirement, in accordance to the Minister of Health Decree No. 1405/ivlenkes/SK/XI/2002. Concentrations of NO2, SO2, and Nl-I; were detected in three rooms. The concentration of CO in all rooms was the same; while CO2, l-l2S, and PM10 were detected in all rooms with different concentrations. Illuminations in all rooms were in compliance to the standard requirement (> 100 lux). On the other hand, the temperature and humidity in some rooms exceeded the standard requirement, however, in general the average value of these two variables still meet the requirements.

The prevalence of SBS was 19%, mostly in the fonn of fatigue, pain and stiff on the shoulder and neck (50%); common cold, coughing and sneezing (49.6%); as well as diuiness, headache and concentration problems (38.4%). Temperature, ergonomic working position, sex and age significantly influence the incidence of SBS, in which the room temperature was shown to be the predominant variable.

Indoor air quality was still in compliance to the health standard requirement. As for the physical environment, the measurement average values still meet the requirements although the temperature and humidity in some rooms did not. _ Temperature, ergonomic working position, sex and age significantly influence the incidence of SBS. Maintenance of the air conditioner and sustaining ergonomic working position are prevention actions that should acquire attention in the SBS program.