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POSTER COMMUNICATION · INFECTIOUS DISEASES

Assessment of Health Symptoms of Indoor Fungal Exposure in Simulation Laboratories, Preclinical Building, Faculty of Medicine, University Kebangsaan Malaysia

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KEY MESSAGES

1. To identify the dominant types of fungi present in the simulation laboratory and their corresponding growth rates.
2. To identify the predominant health symptoms among participants resulting from the fungal exposure in the simulation laboratory.
3. To investigate the association between health symptoms resulting with fungal exposure according to demographic factor, smoking status, environmental conditions and pre-existing health status.

ABSTRACT

Introduction. Exposure to fungal agents is linked to a wide range of health symptoms when mycotoxins in the air are inhaled, ingested, or absorbed through the skin. Research on indoor fungal exposures in teaching laboratories in Malaysia is limited.

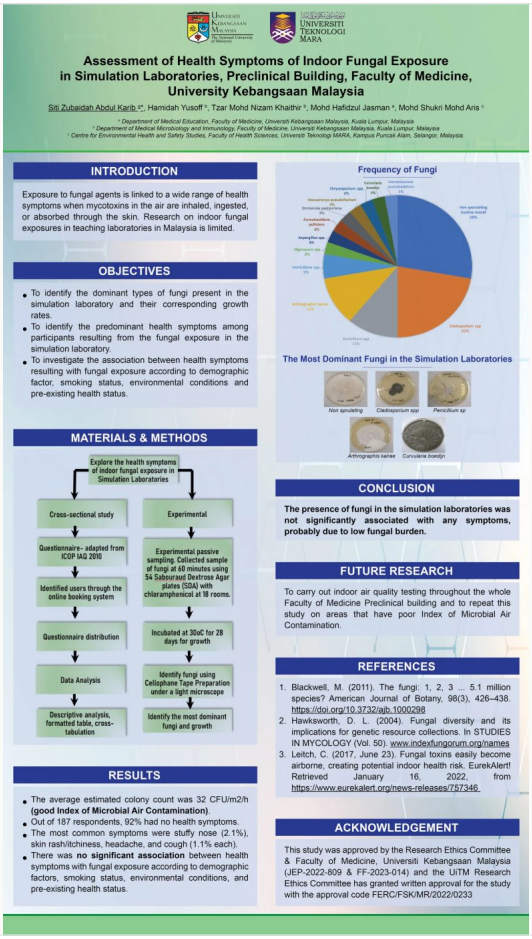
Materials and methods. A cross-sectional and experimental study was conducted to explore health symptoms of indoor fungal exposure in simulation laboratories. A questionnaire adapted from ICOP IAQ 2010 was distributed to identified users through an online booking system. Experimental passive sampling collected fungi samples at 60 minutes using 54 Sabouraud Dextrose Agar plates with chloramphenicol at 18 rooms, incubated at 30°C for 28 days. Fungi were identified using cellophane tape preparation under a light microscope to determine dominant fungi and growth rates. Data analysis included descriptive analysis, formatted tables, and cross-tabulation.

Results. The average estimated colony count was 32 CFU/m2/h, indicating a good Index of Microbial Air Contamination. Among 187 respondents, 92% reported no health symptoms. The most common symptoms were stuffy nose (2.1%), skin rash/itchiness, headache, and cough (1.1% each). No significant association was found between health symptoms and fungal exposure according to demographic factors, smoking status, environmental conditions, and pre-existing health status.

Conclusion. The presence of fungi in the simulation laboratories was not significantly associated with any symptoms, probably due to low fungal burden.

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POSTER



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