

Occupational therapy for people with asthma symptoms related to their housing environment

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Abstract

Introduction: Asthma is a worldwide problem affecting an estimated 300 million people in all age groups. Despite current improvements in asthma management programs, individuals suffering from asthma still experience restrictions in their daily life. Prevention is important and adaptation of the housing environment is one intervention proposed by occupational therapists'.

Objectives: The overall aim of these studies was to establish which indoor climate factors in the housing environment that maintain or worsen asthma symptoms.

Methods: Quasi-experimental and cross-sectional designs and a case-control approach were used. Data was collected from a consecutive series of patients with asthma (n=21) and from a randomly selected sample, representative of the general population (n=6732) in Sweden. The random sample was classified into subgroups: people with asthma (n=261, respectively, n=49), healthy people (n=5266), people without asthma (n=48) and people with symptoms (n=1205). Data were gathered by using subjective information from diaries and questionnaires and objective measurements of medical and environmental factors, including inspections of the houses.

Results: Lung function was improved after removal of textile wall-to-wall carpets or increased air exchange rate. Although, that no significant differences of the housing environment was found between people with or without asthma, several 'risk environments' were identified. Higher levels of humidity, insufficient ventilation and occurrence of house dust mites in single-family houses indicated a less favourable indoor climate in these houses. Reported respiratory symptoms related to specific environmental exposure, increased among both healthy and unhealthy people when they reported occurrences of indoor climate risk indicators.

Conclusion: In several of the investigated houses preventive interventions were needed to improve the indoor climate and decrease exposure of allergens and airway irritants. One aspect of the complex relationship between the individual and the environment has been studied, namely the concept accessibility. Further studies are needed in occupational therapy to investigate other aspects of the person - environment relationship e.g. the concept usability including the activity component that also takes into account a person's own evaluation of the degree to which they can be in and use their environment.