

Poster: 0082

Longitudinal Follow-Up of Patients Evaluated for Complaints Related to Nonindustrial Indoor Environments: Symptoms, Work and Lifestyle Changes

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Broad Importance of the Research Problem: The majority of United States workers are employed in non-industrial indoor work environments. Increased risk of nonspecific symptoms, asthma and lost work productivity has been associated with such work environments, with much focus on causative factors. Little is known about the longer-term health and socioeconomic outcomes of patients with symptoms or diseases associated with their indoor work environments. This study describes longitudinal symptoms, health and lifestyle changes in patients seen at two occupational and environmental health clinics in Connecticut.

Purpose and Methods: We performed a retrospective longitudinal study of patients who presented with symptoms related to a non-industrial work environment to characterize health, work, quality of life and socioeconomic outcomes. 130 patients seen at Yale University or University of Connecticut Occupational Health Clinics between 1997 and 2002 completed a telephone questionnaire to assess current symptoms and health, home and work modifications, and job status. Clinic medical record abstractions were also completed. Participants were characterized as asthmatic or non-asthmatics based on medical record information and self report. Chi-squared analysis was used to test if frequencies were statistically different and ANOVA was used to test if means were statistically different.

Summary of Findings: The office workers were predominantly white female, had a mean age of 49.7 and were well educated (66% having a bachelor's degree or higher). They were interviewed a mean of 3.6 years after initial evaluation. 55% had self reported current asthma, 71% of whom were diagnosed after the triggering event. The most common presenting symptoms were respiratory and irritant (>90% patients) and neurologic (60% patients). Over 75% patients reported onset of symptoms following a specific office renovation or move. Although 70% reported their overall health had improved at follow-up, over 70% had persistent symptoms that interfered with activities. Of note, substantial modifications

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to lifestyle, work and home environments were made in about 80%, and despite modifications, it often took several years for symptoms to improve (mean 5.8 yrs). Asthmatics were more likely to be atopic and report more respiratory symptoms. There were no statistical difference between asthmatics and non-asthmatics in terms of age, years with employer and current employment status. Asthmatics had a statistically higher prevalence missed days of work and fair or poor general overall health compared to non-asthmatic workers. They were statistically more likely to make some modifications to their lifestyle than non-asthmatics.

How the Findings Advance the Research Field: These findings demonstrate that patients who present with building-related complaints have symptoms, modified lifestyles, and work changes which can persist long after the initial event, and that the adverse impact of such indoor work environments may be greater in asthmatics compared to non-asthmatics.

Improving Workplace Safety and Health: These findings, which suggest that triggering Events in indoor work environments may be associated with persistent symptoms and modifications at home and work, identify potential targets for preventive strategies that may improve the health, lifestyles and productivity of workers in non-industrial indoor environments. Such preventive strategies may be particularly benefit asthmatic workers.

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