sisted of nursing visits designed to decrease environmental allergen and tobacco-smoke exposure and improve the quality of maternal caregiving and illness management. Psychosocial information was used to individualize plans for behavior change.

RESULTS. The percentage of children with asthma at 4 years of age did not differ significantly between the 2 groups (intervention and control) ($P = .33$). However, among children with lower symptom severity at study entry, the odds of developing asthma were 3 times lower for those in the intervention group ($P = .04$). Caregiver quality of life was significantly better ($P = .01$) and symptom severity was lower ($P = .03$) for those in the intervention group. It is interesting to note that asthma rates did not differ significantly for children whose mothers had asthma or for those found to be atopic ($\geq 1$ positive skin-test result).

CONCLUSIONS. Multifaceted intervention was unsuccessful as a secondary intervention in decreasing the development of asthma in this cohort as a whole. However, asthma development was ameliorated in children with low symptom severity in infancy.

REVIEWER COMMENTS. The nonmedical interventions, performed in a relatively small cohort, were ineffective in altering the progression from infant wheezing to persistent asthma at 4 years of age. However, they did have a significant positive effect on the caregivers’ quality of life compared with those in the control group. The authors hypothesized that children with lower severity at baseline may be more susceptible to changes in environmental exposures or illness-related caregiving. However, the study did not ensure that children with more severe symptoms received appropriate treatment with inhaled corticosteroids or that the medications were administered appropriately. This may explain why only children with milder disease benefited from environmental interventions. The investigators plan to follow these children until the age of 7 years.

TOBACCO AND AIR POLLUTION

Home Exposures to Environmental Tobacco Smoke and Allergic Symptoms Among Young Children in Singapore


PURPOSE OF THE STUDY. To investigate the association of environmental tobacco smoke (ETS) exposure among preschool-aged children with allergic symptoms in homes in Singapore.

STUDY POPULATION. The authors studied children between the ages of 1.5 and 6 years who were attending 687 child care centers in Singapore.

METHODS. This study used a cross-sectional design, adopting an expanded and modified International Study on Asthma and Allergies in Childhood (ISAAC) questionnaire for the evaluation of asthma and allergies in 6794 children attending 120 randomly selected child care centers. Specific information on demographics and ETS exposures was obtained. Adjusted prevalence ratios (PRs) and 95% confidence intervals (CIs) were determined by using Poisson multivariate regression with a log-link function and robust variance estimates as recommended for cross-sectional studies.

RESULTS. The response rate was 70.0%, and 4759 children from 97 centers participated. After adjusting for covariates, it was found that home ETS exposure was associated with increased risks of current symptoms of rhinitis (PR: 1.23 [95% CI: 1.01–1.50]) and rhinoconjunctivitis (PR: 1.79 [95% CI: 1.26–2.54]). These associations followed dose-response trends with respect to the number of cigarettes smoked or smokers in the home. Home ETS exposures were also associated with higher PRs of wheeze, nocturnal cough, and doctor-diagnosed asthma. Compared with paternal smoking, higher risks of the above-listed outcomes were found for maternal smoking.

CONCLUSIONS. Home ETS exposure is a risk factor associated with rhinitis and asthma among preschool-aged children.

REVIEWER COMMENTS. This article provides additional evidence that exposure to ETS is associated with asthma and rhinitis. These findings support the continued need to discuss the risks of ETS exposure when reviewing anticipatory guidance items with families.

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Cigarette Smoke Exposure Impairs Dendritic Cell Maturation and T Cell Proliferation in Thoracic Lymph Nodes of Mice


PURPOSE OF THE STUDY. Airborne antigens are processed and presented by respiratory tract dendritic cells (DCs). The purpose of this study was to determine the consequences of cigarette-smoke exposure on DC function in mice.

METHODS. Mice were exposed to cigarette smoke 5 days per week for 1 month. There was also a control group of
Home Exposures to Environmental Tobacco Smoke and Allergic Symptoms
Among Young Children in Singapore

Jennifer M. Maloney

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