

Atopic Dermatitis Is Associated With Higher Rates of Chronic School Absenteeism in Children and Work Absenteeism in Their Parents

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Introduction: Previous studies have found decrements in school performance among children with atopic dermatitis (AD). However, data are limited on the impact of childhood AD on chronic school absenteeism. The objective of this study was to examine the prevalence and predictors of chronic school absenteeism among children with AD.

Methods: Data were analyzed from the 1999-2015 Medical Expenditure Panel Surveys, a representative cross-sectional, population-based study of US health status and function. Chronic absenteeism was defined as missing ≥ 6 school days per year due to illness. Logistic regression models were constructed to examine the association of AD and chronic school absenteeism, as well as predictors of school absenteeism among children with AD. Two-way interactions were assessed.

Results: Of 3132 children with AD, 1544 (67.7%) missed ≥ 1 day of school, and 484 (15.2%) missed ≥ 6 days, per year due to illness. The mean number (minimum-maximum) number of school days missed per year was 3.56 (0-100) vs 3.16 (0-184) days among children with vs without AD. Overall, childhood AD was associated with chronic school absenteeism in models adjusted *a priori* for sex, age, race, and income (logistic regression; adjusted OR [95% CI]: 1.24 [1.07, 1.42]), with stepwise increases according to disease severity (mild-moderate AD: 1.21 [1.04, 1.40]; severe AD: 1.47 [1.07, 2.03]). Moreover, there were 2-way interactions of AD and depression such that comorbid AD and depression predicted higher rates of chronic absenteeism than either AD or depression alone ($P=.01$). Among children with AD, chronic absenteeism was associated with all age groups compared with ages 18 to 22 years (logistic regression invoking step-wise selection, 7 to 11 years: 3.70 [2.11, 6.48], 12 to 17 years: 4.09 [2.32, 7.20]) and comorbid disease (depression: 4.37 [2.18, 8.77], asthma: 2.46 [1.78, 3.48]), and it was inversely associated with Black race (0.44 [0.31, 0.62]) and no insurance (0.36 [0.17, 0.73]). Parents of children with vs without AD were more likely to miss ≥ 1 day of work for caregiving needs (father: 32.0% [28.4%-35.6%] vs 25.8% [24.9%-26.6%], 1.28 [1.09, 1.49]; mother: 39.7% [36.6%-42.7%] vs 32.8% [32.1%-33.5%], 1.24 [1.10, 1.40]), after controlling for sex, age, race, and income.

Conclusions: Children with AD had increased prevalence of chronic school absenteeism, particularly in younger children with comorbid depression. Children with AD may benefit from broad, early screening for targeted interventions to prevent chronic school absenteeism.