

Table 4. Relative Risk of Allergic Rhinitis in Study Participants Based on Environmental Characteristics

Variable	OR*		(95% CI)	p value
	Crude	Adjusted		
Presence of standing water (day/year)				
1	1.0	1.1	(0.8, 1.4)	0.59
> 1	1.3	1.4	(1.0, 2.0)	0.04
Molds at the wall				
Yes	1.5	1.0	(0.8, 1.2)	0.99
No. of cockroaches				
≤ 2	1.1	1.1	(0.9, 1.3)	0.36
> 2	1.1	1.1	(0.9, 1.3)	0.34
Incense used everyday				
Yes	0.9	1.0	(0.9, 1.2)	0.66
Mother smoked during pregnancy				
Yes	1.1	1.4	(0.5, 4.3)	0.53
No. of persons smoking at home				
1	0.8	1.0	(0.6, 1.7)	0.90
> 1	1.0	1.5	(0.9, 2.5)	0.15
No. of daily cigarettes smoked at home				
≤ 10	0.9	0.8	(0.5, 1.3)	0.41
> 10	0.9	0.8	(0.5, 1.3)	0.36
Student smokes				
Yes	0.6	0.6	(0.3, 1.0)	0.07
Parents perceived air pollution in neighborhood				
Light	1.2	1.2	(0.8, 1.4)	0.05
Moderate or heavy	1.3	1.4	(1.0, 1.8)	0.03
Educational level of parents (years)				
7-9	0.9	1.3	(1.0, 1.6)	0.02
> 9	2.0	1.9	(1.6, 2.4)	< 0.001

* The reference groups are the same as those presented in Table 2. All adjusted ORs were adjusted with all variables presented in Tables 1 and 2.

as the exposure level increased. The results show that the association between parental educational level and allergic rhinitis does have a positive trend with statistical significance [slope = 0.41; 95%CI = 0.27-0.55].

DISCUSSION

The rate of allergic rhinitis at 9.8% in adolescent students (12-14 years old) in a rural county in Taiwan is lower than that of a similar age group reported by a questionnaire study in Norway at 17.8%.¹⁹ Although self-reported questionnaire surveys tend to overesti-

mate the disease prevalence rate in general,²⁰ we consider our prevalence rate to have actually been underestimated. The underestimation may be mainly attributed to the following factor. In our culture, parents are more likely to recognize a condition as "the nose having some allergic symptoms" even when the severity and characteristics of the symptoms are equivalent to that of "allergic rhinitis," a clinical-sounding term, when diagnosed by physicians. The question which specifically asked "Does your child have allergic rhinitis?" is likely to trigger a relatively conservative answer, and people will tend to respond with "no."

The significant influences of hereditary factors on the development of allergic rhinitis in children have