**Table 3** Binary logistic regression model of associations between residential environment and respiratory/ asthma symptoms (n=658)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Wheezing or whistling in the chest (Asthma) | Dry cough at night  | Phlegm  | Shortness of breath | Running nose without cold |
| **Factors** | AOR (95% CI) | *p*-value | AOR (95% CI) | *p*-value | AOR (95% CI) | *p*-value | AOR (95% CI) | *p*-value | AOR (95% CI) | *p*-value |
| Age of residence (year) |  |  |  |  | 1.009 | (0.995, | 1.023) | 0.222 | 1.009 | (0.996, | 1.022) | 0.186 |  |  |  |  |  |  |  |  |
| Place near residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Garment/ clothing (Yes) |  |  |  |  |  |  |  |  |  |  |  |  | **1.846** | **(1.034** | **3.297)** | **0.038** |  |  |  |  |
| Furniture shop (Yes) |  |  |  |  |  |  |  |  |  |  |  |  | 1.696 | (0.643, | 4.473) | 0.286 |  |  |  |  |
| Garage/ car care (Yes) | 0.501 | (0.174, | 1.442) | 0.200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fresh market and restaurant (cooking smoke) (Yes) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.283 | (0.087, | 0.915) | 0.035 |
| Living in cigarette smoke area (Yes) |  |  |  |  | 1.643 | (0.980, | 2.755) | 0.060 | 1.254 | (0.755, | 2.084) | 0.383 |  |  |  |  | 1.093 | (0.646, | 1.849) | 0.740 |
| Living in incense smoke area (Yes) | 2.030 | (0.700, | 5.887) | 0.192 |  |  |  |  |  |  |  |  | 3.013 | (0.986, | 9.207) | 0.053 | 1.741 | (0.680, | 4.456) | 0.248 |
| Vectors (cockroach, rat, etc.) (Yes) | 1.303 | (0.763, | 2.224) | 0.332 | **1.505** | **(1.052,** | **2.153)** | **0.025** | **1.414** | **(1.014,** | **1.973)** | **0.041** | 1.328 | (0.717, | 2.461) | 0.367 | 1.382 | (0.995, | 1.919) | 0.054 |
| Home renovation (Yes) |  |  |  |  | 1.341 | (0.896, | 2.007) | 0.155 | 1.294 | (0.877, | 1.911) | 0.194 | 1.538 | (0.822, | 2.878) | 0.178 | 1.388 | (0.934, | 2.062) | 0.105 |
| Wall dampness (Yes) | **1.921** | **(1.141,** | **3.235)** | **0.014** | 1.225 | (0.836, | 1.794) | 0.298 | 1.337 | (0.928, | 1.926) | 0.119 | **1.882** | **(1.047,** | **3.386)** | **0.035** | 1.093 | (0.754, | 1.584) | 0.638 |
| Flowers with pollen (Yes) |  |  |  |  |  |  |  |  | 1.203 | (0.802, | 1.804) | 0.371 | 1.552 | (0.810, | 2.975) | 0.185 | 1.204 | (0.800, | 1.812) | 0.372 |
| Using insecticide (Yes) |  |  |  |  |  |  |  |  |  |  |  |  | 0.440 | (0.241, | 0.806) | 0.008 |  |  |  |  |

*aAll models were adjusted for age of children, children gender (male/female), family history of asthma (yes/no), tenure status (owner/ tenant), and smoking people in family (yes/no)*

*bFinal model of each symptom was performed using selected variables which had significant value less than 0.2 (p-value<0.2) in bivariate analysis.*