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**Introduction.** Substandard housing in Hispanic minority communities has been associated with detrimental effects on children with asthma that is affected by diverse indoor triggers. Identifying those triggers and offering adequate medical treatment and ways to prevent exposure to triggers will help reduce the number of asthma attacks among children who reside in Hispanic minority communities.

**Objective.** Our study aimed to identify the influence of substandard housing quality and its effect on asthma symptoms. Our objectives included assessing the impact of building, flooring types, heating sources, window shading, parental smoking behaviors, moisture and mold in the home, ventilation, and owning a pet on asthma symptom occurrence.

**Materials and methods.** Our study was based on a cross-sectional analytical study involving 353 individuals, their parents, and their homes. Logistic regression modeling was conducted to explain the dependence of each asthma symptom on the investigated independent variables, with child age and sex being investigated as covariables. A post hoc test was employed to ensure goodness of fit, and a pseudo-R square was calculated for each regression model. The Hosmer-Lemeshow test was performed post hoc to ensure goodness of fit, and models were preserved if  $p > 0.05$ .

**Results.** The overall prevalence of asthma-related symptoms in our study sample was 19.37%, and sleeping quality was affected due to asthma in 23% of participating children. We also found that children living with asthma near agricultural fields were more prone to asthma-related symptoms, as well as those children living in homes with excessive moisture and those who kept stuffed toys or pets inside their rooms.

**Conclusions.** Our study highlights how a variety of environmental factors, such as living near an agricultural area and having curtains, increases shortness of breath. Having leaks and excessive moisture in houses increases shortness of breath, wheezing, coughing, and rates of colds. Another important exposure is having a pet inside the house which increases chest tightness. A comprehensive understanding of these factors and how they impacted targeted participants, especially those who are Hispanic minorities and living in substandard housing, is essential for informing the design of effective interventions and improving respiratory health in the home environment.