

Letter to the Editor

Prevalence of asthma in the Federal District of Brasília, Brazil

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I congratulate the authors on their article "Prevalence of bronchial asthma and related symptoms in schoolchildren in the Federal District of Brazil: correlations with socioeconomic levels" which enriches the knowledge of the epidemiology of asthma in Brazil.⁽¹⁾

I would like to make a few comments regarding the article. First, despite the fact that the sampling was probabilistic and the sample was apparently representative, the substitution of incomplete questionnaires with those from other students from the same schools could have created a selection bias, creating a sample consisting of participants that were more interested in filling out the questionnaires, whether because they were more well educated or because they were asthmatic.

Second, the interaction between asthma and socioeconomic condition, as seen for other risk factors, appears in a multicausal form, and the association found in this study was not corrected for confounding factors.

Third, the authors apparently made a mistake when citing our study of asthma prevalence in Recife, stating that we had found an association between greater asthma prevalence and lower level of maternal education. What we found was in fact the opposite, that greater asthma prevalence was associated with a higher level of maternal education.⁽²⁾ This is in agreement with the observations made by Chew et al.⁽³⁾ in Singapore using the International Study of Asthma and Allergies in Childhood protocol. Wandalsen,⁽⁴⁾ studying school children in the south-central region of the city of São Paulo, found no association between asthma symptoms and maternal schooling, a finding echoed by Moraes et al.⁽⁵⁾ in a case control study conducted in Cuiabá.

According to the hygiene theory, children exposed to unhygienic conditions at an early age

would be less prone to develop asthma.⁽⁶⁾ If that theory holds true, the prevalence of asthma should be lower in the poorest communities.

The final aspect that must be taken into consideration is how we define poverty. According to the Brazilian Institute of Geography and Statistics,⁽⁷⁾ poverty is defined as per capita income below the minimum wage. In the study conducted by Filizola et al.,⁽¹⁾ this criterion is not used to define socioeconomic condition. It is therefore likely that the cut-off point was higher.

From my point of view, poverty as a risk factor for asthma is complex and varies from region to region, in Brazil and in the rest of the world. In order to understand this relationship more clearly, case-control and cohort studies are needed.

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