Epidemiological characteristics and relevant factors on the comorbidity of hyperactivity behavior and allergic diseases in preschool children

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Abstract

Objective: To understand the epidemiological characteristics and relevant factors on the comorbidity of hyperactivity behavior and allergic disease among preschool children in urban areas of Ma'anshan city.

Methods: During April 2014 to April 2015, 91 kindergartens over 3 years old were investigated. In the investigation, 16,439 questionnaires were distributed to parents, and 15,291 valid questionnaires were collected. Conners abbreviated symptom questionnaire (brief symptom questionnaire) was filled out by parents to assess the children's hyperactive behaviors. Information of allergic disease history was reported by parents, including allergic dermatitis/eczema, food/drug allergy, allergic rhinitis and asthma. Multivariate unconditional logistic regression was used to analyze the relevant factors of comorbidity of hyperactivity behavior and allergy diseases.

Results: The average age of the 15,291 children were (4.5±1.0) years old, among which 53.7% (8,218/15,291) were boys. The prevalence of hyperactive behaviors was 8.6% (1,317/15,291), and the comorbidity rate of hyperactivity and allergic diseases was 1.7% (258/15,291). After confounding factors including gender, age, delivery mode, father's age and pregnancy complications adjusted, poor sleep quality (OR=4.45, 95%CI: 2.85-6.94), long duration of watching TV at weekend (OR=1.39, 95%CI: 1.00-1.94) and poor eating behavior (OR=1.78, 95%CI: 1.07-2.98) were relevant factors of the comorbidity of hyperactivity and allergic diseases.

Conclusion: The prevalence of comorbidity of hyperactivity behavior and allergic disease among preschool children in urban areas of Ma'anshan city was not high. Poor night sleep quality, long duration of watching TV and frequently picky eating were relevant factors of the comorbidity of hyperactive behaviors and allergic diseases.