

The Prevalence of Allergic Rhinitis among Iranian Children: A Systematic Review and Meta-Analysis

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Abstract:

Background: The prevalence of allergic rhinitis in the world is 10-15%, and it is currently the most common chronic disease among children. There is no comprehensive statistics about the prevalence of allergic rhinitis among Iranian children, therefore, this systematic review and meta-analysis was conducted to evaluate the prevalence of allergic rhinitis among Iranian children.

Methods: The present study was conducted based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist. The data was collected using key words including allergic rhinitis, prevalence, epidemiology, child OR children, pediatrics and Iran, in international databases including PubMed, Scopus, Web of Science, Cochrane, Embase, and three national databases including Magiran, Iran Medex, and Scientific Information Databank (SID) till December 2018. The STROBE checklist was used for quality assessment. The data were analyzed using STATA software version 12.1.

Results: The prevalence of allergic rhinitis in children and adolescents were 18% (99.7% CI: 10-28% with publication bias of 0.174) and 25% (99.8% CI: 17-33 with publication bias of 0.617) respectively. The prevalence of allergic rhinitis in males was estimated to be 27% (99.4% CI: 17-36) with publication bias of 0.538 and in females was 23% (99.4% CI: 14-31) with publication bias of 0.926.

Conclusion: The prevalence of allergic rhinitis is approximately high among Iranian children and adolescents; thus, educational strategies should be considered to decrease the prevalence of this disease in Iran.

Keywords: Prevalence, Allergic rhinitis, Children, Iran, Male, Female