

Association between allergic diseases and attention-deficit/hyperactivity disorder (ADHD) symptoms in children ages 6 – 12 years old using the Filipino version of the vanderbilt ADHD parent rating scale

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ABSTRACT

Objective: The objective was to determine the association of allergic diseases and ADHD symptoms among children ages 6 – 12 years old based on parental report using the Filipino version of the Vanderbilt ADHD Parent Rating Scale. **Methods:** School-aged children ages 6 to 12 years old with physician-diagnosed allergies (bronchial asthma, allergic rhinitis, atopic dermatitis) were randomly selected. Skin prick test (SPT) to aeroallergens was done. The parents completed the Filipino version of the Vanderbilt ADHD Diagnostic Parent Rating Scale (VADPRS), a screening tool for ADHD. **Results:** Among the 415 patients, 135 (32.5%) screened positive for ADHD symptoms. Upon assessment of the Vanderbilt parent rating subscale responses, 13.49% of the children were categorized as predominantly inattentive subtype, 6.02% as predominantly hyperactive/impulsive subtype, and 13.01% as combined inattention/hyperactivity. Three hundred and seventy-six (91%) children were diagnosed with asthma. Among these asthmatics, 119 (32%) had ADHD symptoms with the following subtypes – predominantly inattentive subtype (13.56%), predominantly hyperactive/ impulsive subtype (5.05%) and combined inattention/hyperactivity (13.03%). Combined inattention/hyperactivity subtype had a significant proportion of severe asthmatics, as compared to mild or moderate asthma (p value = 0.026). Furthermore, 389 (94%) children were diagnosed with allergic rhinitis. Among these patients, 130 (33%) had ADHD symptoms with the following subtypes – predominantly inattentive subtype (13.62%), predominantly hyperactive/ impulsive subtype (6.43%) and combined inattention/hyperactivity (13.37%). However, evidence is not sufficient to demonstrate a difference in ADHD subtypes with allergic rhinitis severity. Lastly, 206 (50%) children were diagnosed with atopic dermatitis. Among these patients, 71 (34%) had ADHD symptoms with the following subtypes – predominantly inattentive subtype (14.56%), predominantly hyperactive/ impulsive subtype (4.85%) and combined inattention/hyperactivity (15.05%). However, there is insufficient evidence to demonstrate a link between ADHD subtypes and atopic dermatitis severity. **Conclusion:** Children with allergies, especially those with severe asthma are more likely to have ADHD symptoms.