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Letter to the Editor

Comment on "Prevalence and clinical predictors of sleep disturbances in children with seasonal allergic rhinitis"

Ayşe Mete Yeşil

Department of Developmental Pediatrics, Hacettepe University, Ankara, Türkiye

Corresponding Author: **Ayşe Mete Yeşil**
e-mail: draysemeteyesil@gmail.com
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Introduction

In the latest issue of the Turkish Journal of Pediatric Disease, Aytekin Güvenir et al. (1) evaluated the prevalence and clinical predictors of sleep disturbances in children with seasonal allergic rhinitis (SAR). The authors reported that 44.3% of children with SAR had clinically significant sleep disturbances and that the total and subscale scores of the Sleep Disturbance Scale for Children (SDSC) were higher in children with SAR than in healthy controls. In the multivariate analysis, a higher nasal visual analogue scale (VAS) score remained independently associated with sleep disturbances. The study offers useful insight into sleep disturbances among children with SAR. The evaluation of different SDSC subscales also provides valuable information by demonstrating that sleep-related difficulties in these children may extend beyond sleep-related breathing disorders.

Apart from the study limitations acknowledged by the authors, we would like to highlight several points that may be relevant when interpreting the findings. The relationship between the ARIA severity classification and sleep outcomes may merit consideration. Since impaired sleep quality is itself one of the criteria used to classify rhinitis as moderate-to-severe, some children may have been assigned to the more severe category partly or solely on the basis of impaired sleep quality. Although the grouping variable in Table III is labelled as "sleep disorders," the identical number of affected children reported according to the SDSC threshold and in Table III (n=51) suggests that the groups were defined on the basis of SDSC-defined sleep disturbance. This definitional overlap may have contributed to the observed association between rhinitis severity and SDSC-defined sleep disturbance. We would therefore be interested to know how many children met the moderate-to-severe classification because of impaired sleep quality alone or together with other ARIA criteria. It would also be informative to know whether the association was explored after excluding the sleep-related criterion from the severity classification. Clarification of these points would help contextualize the reported association between rhinitis severity and sleep disturbance.

Although the SDSC captures different manifestations of sleep disturbance, contemporary pediatric sleep-health frameworks conceptualize sleep as a product of interacting biological, behavioral, developmental, familial, environmental, and social influences. Children's sleep occurs within a dynamic socioecological system in which the child may have limited control over sleep schedules, routines, environmental conditions, and opportunities for healthy sleep (2, 3). In this context, we would be interested to know whether other factors that may influence pediatric sleep, such as screen exposure, physical activity, sleep schedules and bedtime routines were also considered or recorded during the study (4-6). Such factors may contribute to sleep outcomes independently or may form part of the pathway linking allergic symptoms to sleep; for example, children with more severe symptoms may spend less time outdoors, engage in less physical activity, or experience changes in screen use and bedtime routines. Any available information regarding these variables could provide further context for interpreting the finding that nasal VAS score was the only independently associated factor in the model.

The broad age range of 6–16 years may also deserve consideration, as sleep patterns and their determinants differ between school-aged children and adolescents. Age-related differences in circadian timing, bedtime autonomy, school demands, screen use, and pubertal development may influence both baseline sleep characteristics and the association between allergic symptoms and sleep disturbance (7). We would therefore be interested to know

whether sleep outcomes and their clinical associations were also explored separately in school-aged children and adolescents. Such information, if available, could provide additional context regarding the consistency of the findings across developmental stages.

Irrespective of these considerations, the study provides valuable evidence supporting the routine assessment of sleep health in children with SAR. Following the identification of a sleep concern, extending the clinical evaluation beyond allergic symptoms to include relevant child-, family-, behavioral-, and environmental factors may enable a more comprehensive understanding of the child's sleep difficulties.

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