Sleep disorders in childhood found to increase the risk of developing ADHD symptoms

June 17 2024

An investigation shows the close relationship between childhood sleep disorders and the development of ADHD symptoms in preadolescence. The study, recently published in the *European Journal of Pediatrics*, represents important progress in understanding the causes of ADHD, a neurodevelopmental disorder affecting around 7.5% of children.

The study was led by Llúcia González-Safont, a researcher in the area of Epidemiology and Public Health (CIBERESP) from the Faculty of Nursing and Podiatry at the University of Valencia and visiting lecturer at the Universitat Jaume I in Castellón, Spain.

The research staff, which also includes researcher Marisa Rebagliato, from the Predepartmental Unit of Medicine of the UJI, has worked with 1,244 boys and girls from Gipuzkoa, Sabadell and Valencia, more specifically, the cohorts participating in the INMA project. On the one hand, they assessed sleep disorders at the age of 8 or 9 using the Child Behavior Checklist (CBCL) for ages 6–18, and on the other, they examined manifestations of ADHD using the Conners Parent Rating Scale (CPRS-R:S).

Sleep is a complex physiological state, partly responsible for physical and mental performance and the development and healthy maintenance of learning processes, declarative and procedural memory, generalization of knowledge and the processing of emotions. Disorders affecting it
have immediate and far-reaching consequences.

The results of the CIBER researchers' work are added to this evidence, making it possible to relate sleep problems in childhood to the development of ADHD symptoms when older. The conclusions of the study could be useful for implementing policies and actions that promote the right conditions for developing healthy sleep habits during childhood.

Several studies had previously shown that sleep disorders and ADHD are common during childhood, with a prevalence of 20% for sleep disorders and 3–7.5% for ADHD. Sleep disorders are more prevalent in children with ADHD, affecting between 25% and 73.3% of them.

In this context, the work of the CIBER researchers has established a strong relationship between sleep disorders at the ages of 8 and 9 and the development of ADHD symptoms at the ages of 10 and 11. The association between sleep disorders and ADHD symptoms has been maintained after excluding from the initial analysis children who had shown previous clinical problems (for example, those born small for their gestational age, premature babies, and those who had symptoms compatible with an ADHD diagnosis either before and at the same time as the appearance of sleep disorders).

This highlights the strength of the association between sleep disorders and ADHD.

Dr. González emphasized, "These findings must be interpreted with caution. Although not all children with sleep disorders will develop symptoms of ADHD, detecting them at an early stage, with questionnaires that are easy to apply in pediatric consultations, could contribute to preventing or mitigating future symptoms of behavioral problems like ADHD. It would therefore be useful to incorporate this type of screening tool into primary care programs such as the Children's
Health Programme."

The results of the study were also presented at the Congress of the Spanish Society of Epidemiology, where its authors received recognition for one of the best communications by CIBERESP personnel.


Provided by Universitat Jaume I


This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.