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Association between sleep disorders and migraine in children and adolescents: an integrative review of current evidence

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Introduction
Migraine is a highly prevalent primary headache disorder in the pediatric population, with potential impact on school performance, daily functioning, and quality of life. Sleep disturbances are also common in this age group and frequently coexist with migraine, manifesting as insomnia symptoms, poor sleep quality, altered sleep architecture, and specific disorders such as restless legs syndrome (RLS). Given the heterogeneity of pediatric sleep assessment methods, synthesizing current evidence is clinically relevant.

Objective
To analyze the association between sleep disturbances and migraine in children and adolescents, considering insomnia symptoms, sleep quality, polysomnographic findings, and associated sleep disorders.

Methods
Integrative review of studies retrieved from PubMed/MEDLINE, LILACS, and SciELO, using descriptors and free terms for migraine, sleep disorders, and the pediatric population combined with Boolean operators AND/OR. Original studies published between 2015 and 2026 in Portuguese, English, or Spanish were included; adult-only studies, reviews, meta-analyses, editorials, protocols, case reports, and animal studies were excluded. Of 200 records identified, 13 duplicates were removed; 187 underwent title/abstract screening, 26 full-text assessment, and 19 were excluded, yielding seven studies for qualitative synthesis.

Results
The seven included studies (2017–2026) consistently showed an association between pediatric migraine and impaired sleep. Compared with controls, children and adolescents with migraine had reduced sleep duration, higher frequency of insomnia symptoms, poorer sleep quality, and more nocturnal disturbances. Community-based studies confirmed these associations in adolescents, while clinical populations with both conditions showed greater headache-related disability. Polysomnographic findings included reduced REM sleep, increased N1 stage, more frequent awakenings, and reduced sleep latency. RLS was more prevalent among children with migraine and was associated with poorer sleep quality, more frequent awakenings, and concomitant migrainous features such as allodynia and vertigo/dizziness.

Conclusion
Current evidence indicates that pediatric migraine is associated with clinically relevant sleep impairment, including insomnia, poorer sleep quality, altered sleep architecture, and increased prevalence of RLS. These findings reinforce the importance of routinely assessing sleep during pediatric migraine evaluation and follow-up, given its link to greater symptom burden and functional impairment. The predominance of observational and cross-sectional studies limits causal inference, highlighting the need for longitudinal designs and standardized objective sleep assessments.

Keywords:
Migraine disorders
Child
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