

## Letter to the Editor

### Knowledge of basic education teachers regarding students with Attention-Deficit/Hyperactivity Disorder

*Conhecimento de professores da educação básica sobre estudantes com transtorno do déficit de atenção com hiperatividade*

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The management of attention-deficit/hyperactivity disorder (ADHD) involves both pharmacological and non-pharmacological approaches, demonstrating effectiveness across diverse contexts<sup>1,2</sup>. However, within the school environment, students with ADHD often face stigma and a lack of understanding from educators, which may exacerbate their behavioral and academic difficulties<sup>3,4</sup>. Schools, as developmental settings, play a crucial role in identifying and implementing interventions that promote the social and academic integration of students with ADHD. Well-trained educators can significantly contribute to reducing the impact of the disorder and mitigating challenges related to learning and emotional development<sup>5-7</sup>. In this context, assessing the level of knowledge among basic education teachers regarding ADHD becomes essential.

An observational cross-sectional study was conducted in Montes Claros, Minas Gerais, Brazil. The investigation included 50 teachers from the municipal school system working in the 1st to 5th grades of elementary education across five urban schools. The sample was defined based on the municipality's geographic distribution and territorial organization, including teachers from schools located near major urban centers covered by the Family Health Strategy, as well as areas with higher population density. Data collection was carried out in person using a sociodemographic questionnaire and the Knowledge of Attention Deficit Disorders Scale, which comprises the subscales: general knowledge, symptoms/diagnosis, and treatment. This instrument was developed to assess teachers' level of knowledge about ADHD<sup>8</sup>. The study was approved by the Research Ethics Committee under protocol number 6.745.019.

Most participants were women (98%), with a mean age of 47.2 years (SD±8.82) and an

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average teaching experience of 18.9 years ( $SD \pm 8.79$ ). A considerable proportion held postgraduate degrees (78%), reported prior experience with students diagnosed with ADHD (86%), and had received specific training on the topic (60%).

The overall proportion of correct responses was 42%, with 37% incorrect responses and 21% classified as “I don’t know”. In the general knowledge subscale, only 16.8% of responses were correct; the item regarding whether an adult can be diagnosed with ADHD showed the highest accuracy rate (84%). The symptoms and diagnosis subscale yielded 18.1% correct responses, 22.8% incorrect responses, and 59.1% “I don’t know”. The highest proportion of correct answers was observed in item 21 (86%), indicating that most teachers understood the importance of symptom manifestation across different contexts for diagnosis. Conversely, 44% responded incorrectly regarding the age of symptom onset. The treatment subscale showed 16.6% correct responses, 20.4% incorrect responses, and 63% “I don’t know”. The item addressing the role of parent and teacher training in ADHD management had a 92% correct response rate. However, 46% of teachers incorrectly believed that reducing sugar or food additives intake would be effective in decreasing symptoms.

The findings reveal significant gaps in basic education teachers’ knowledge about ADHD and highlight the need for interventions aimed at improving pedagogical preparedness. Teachers demonstrated insufficient knowledge, particularly in critical areas such as associated psychiatric comorbidities and diagnostic criteria, reinforcing the importance of targeted training for ADHD management<sup>4,8</sup>. Limited understanding of ADHD manifestations may compromise the proper integration and monitoring of these students in the classroom. Well-informed pedagogical management can minimize negative impacts on academic performance and students’ emotional well-being<sup>3</sup>. The proportion of “I don’t know” responses is noteworthy and aligns with previous literature<sup>9,10</sup>, indicating gaps in knowledge regarding management strategies and expectations for student outcomes.

Insufficient understanding of the disorder may compromise the effectiveness of support provided to students. Training programs addressing school-based support strategies are urgently needed and may contribute to creating a more inclusive and effective educational environment.

### **Authors’ contribution**

**Conception and design of the research:** Matheus Martinho de Araújo Carvalho; Maria Clara Gusmão Campos; Vitória Molinari Marinho; Claudiojanes dos Reis. **Data analysis, interpretation, and manuscript writing:** Matheus Martinho de Araújo Carvalho; Maria Clara Gusmão Campos; Vitória Molinari Marinho. **Project administration:** Claudiojanes dos Reis. **Critical review of the manuscript for intellectual content and final**

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## Conflicts of interest

Os autores declararam não haver conflitos de interesse.

## References

1. Stuhec M, Lukić P, Locatelli I. Efficacy, acceptability, and tolerability of lisdexamfetamine, mixed amphetamine salts, methylphenidate, and modafinil in the treatment of attention-deficit/hyperactivity disorder in adults: a systematic review and meta-analysis. *Ann Pharmacother.* 2019;53(2):121-33. <https://doi.org/10.1177/1060028018795703>
2. Park JI, Lee IH, Lee SJ, Kwon RW, Choo EA, Nam HW, *et al.* Effects of music therapy as an alternative treatment on depression in children and adolescents with ADHD by activating serotonin and improving stress coping ability. *BMC Complement Med Ther.* 2023;23(1):73. <https://doi.org/10.1186/s12906-022-03832-6>
3. Almeida FA. TDAH: análises, compreensões e intervenções clínicas e pedagógicas. São Paulo: Editora Científica Digital; 2023.
4. MacLean J, Krause A, Rogers MA. The student-teacher relationship and ADHD symptomatology: a meta-analysis. *J Sch Psychol.* 2023; 99:101217. <https://doi.org/10.1016/j.jsp.2023.04.007>
5. Jarque-Fernández S, Amado Luz L, Oporto Alonso M, Fernández-Andújar M. Effectiveness of a long-term training programme for teachers in attention-deficit/hyperactivity disorder on knowledge and self-efficacy. *Mathematics.* 2021;9(12):1414. <https://doi.org/10.3390/math9121414>
6. Rushton S, Giallo R, Efron D. ADHD and emotional engagement with school in the primary years: investigating the role of student-teacher relationships. *Br J Educ Psychol.* 2020;90 Suppl 1:193-209. <https://doi.org/10.1111/bjep.12316>
7. Weibel S, Menard O, Ionita A, Boumendjel M, Cabelguen C, Kraemer C, *et al.* Practical considerations for the evaluation and management of attention deficit hyperactivity disorder (ADHD) in adults. *Encephale.* 2020;46(1):30-40. <https://doi.org/10.1016/j.encep.2019.06.005>
8. Jangmo A, Stålhandske A, Chang Z, Chen Q, Almqvist C, Feldman I, *et al.* Attention-deficit/hyperactivity disorder, school performance, and effect of medication. *J Am Acad Child Adolesc Psychiatry.* 2019;58(4):423-32. <https://doi.org/10.1016/j.jaac.2018.11.014>
9. Freire FS. Alunos com TDAH: uma análise do nível de conhecimento dos professores do ensino fundamental de uma rede municipal de educação [Internet]. Repositório de Teses e Trabalhos Finais UAA; 2022. Disponível em: <https://revistacientifica.uaa.edu.py/index.php/repositorio/article/view/1249> .
10. Alkahtani KDF. Teachers' knowledge and misconceptions of attention deficit/hyperactivity disorder. *Psychology.* 2013;4(12):963-9. <http://dx.doi.org/10.4236/psych.2013.412139>