

PHYSICAL ACTIVITY ON THE NEUROPSYCHOMOTOR DEVELOPMENT OF CHILDREN WITH ADHD IN ELEMENTARY SCHOOL

Vitor França Damião

Katia Gonçalves Castor



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-No-Derivatives 4.0 International (CC BY-NC-ND 4.0).

Abstract: This research aims to understand the relevance of physical activity in the neuropsychomotor development of children with ADHD in elementary school in the city of Vitória. This way, the research aims to highlight the importance of physical activity as a valuable resource to assist in the development of children with ADHD, providing them with a more welcoming learning environment conducive to their academic and socio-emotional growth at school.

Keywords: ADHD. Physical Activity. Child.

INTRODUCTION

Relationships in the educational environment are very important for life. They guide us towards aspects in socio-affective coexistence, teaching-learning and in other areas of life. In the case of students with attention deficit hyperactivity disorder (ADHD), there is difficulty in starting learning and, consequently, they tend to have a bad relationship with school, as the characteristics of a student diagnosed with ADHD include inattention and hyperactivity, which hinder the development of socio-affective, cognitive aspects and motor skills (MARTINHAGO, CAPONI, 2019).

Studies show that people with ADHD suffer from feelings of incapacity and incompetence. This was followed by feelings of guilt and low self-esteem (COUTO, et al., 2010).

ADHD is a neurodevelopmental disorder that presents changes early in life. This disorder has a strong genetic component, meaning it is common for parents of children diagnosed with ADHD to also have the disorder (BRAZIL, 2022).

On average, 30% of children with ADHD will have one or both parents with the disorder (BRAZIL, 2022). Despite the disorder being present in many generations, the disorder became a major problem for many years due to the lack of in-depth knowledge among

society, being a major controversy between the various types of mental disorders (COUTO, et al, 2010).

In the 40s the term “minimal brain injury” emerged and later in the 60s it was changed to “minimal brain dysfunction”, recognizing it as an alteration characteristic of a syndrome with characteristic symptoms. Subsequently, the disorder entered the ICD-10 – International Code of Diseases and IV Manual of Diagnostics and Statistics of Mental Disorders, thus making it possible to diagnose children who fit the described characteristics (COUTO, et al, 2010).

The number of cases of ADHD varies between 5 and 8% worldwide, with 70% of children with the disorder having one comorbidity and at least 10% having three or more associated comorbidities. Despite the frequent increase in diagnoses, it is not correct to say that there was an increase in cases. This is because the increase in diagnosis occurs due to the frequent propagation of correct information on the subject, causing people to be recognized and welcomed within health and educational services (BRAZIL, 2022). However, there has been a trivialization of the diagnosis, where isolated signs are identified to justify characteristics and conduct. However, we need to reinforce the increase in qualified multidisciplinary professionals in the area and the importance of these professionals, also enabling the increase in coherent diagnoses and enabling correct and increasingly earlier treatments (UNINTER, 2022).

The health and education interface is essential for the adequate reception of these individuals and is consolidated in the Federal Constitution of 1988, in article 227, the text that refers to family, society and the State the responsibility for the fundamental rights of children and adolescents (BRAZIL, 1988), and in the Convention on the Rights of the Child by decree nº 99,710 of November 21, 1990 and

in the Child and Adolescent Statute (ECA) with law 8,069 of July 13, 1990 (BRAZIL, 1990) which speaks on comprehensive protection and proposes health care for children and families in conjunction with other policies, establishing guarantees as priorities (MARTINHAGO, CAPONI, 2019).

Mental health care for children and adolescents is integrated with education through the School Health Program (PSE), which aims to contribute to the comprehensive training of students in the public basic education network, through disease prevention actions, health promotion and health care (MARTINHAGO, CAPONI, 2019).

The symptoms of ADHD begin at the age of seven, and are mostly noticed by the pedagogical team (teachers and pedagogues), as they identify, during the beginning of school life, the child's attention difficulties and restlessness, when compared to others. children, showing the importance of health/school integration (COUTO, et al, 2010).

Children with the disorder experience a block in learning, leading to poor school performance and difficulties in inclusion. Individuals with ADHD present inaccuracy or slowness in reading words or understanding what is read, difficulty with written expression and difficulties with mathematical reasoning (ALENCAR, et al, 2019).

In the learning process, great difficulty is observed in language assimilation. Regarding the motor aspect, there are difficulties in executing more rudimentary skills such as crawling and sitting (CAVALCANTI, 2015). Studies have shown the beneficial effect of physical activity on children with ADHD, demonstrating improvements in the behaviors of these individuals (PAIANO, et al, 2019).

An intervention study carried out in 2011 with 17 children with ADHD showed significant changes in symptoms after applying measures of cognitive, motor,

social and behavioral functioning through physical activity for 26 minutes over eight weeks, demonstrating how important physical activity is in reducing symptoms. in young children (SILVA et al, 2011). Based on the above, the objective of this study is to understand the importance of physical activity in the neuropsychomotor development of children with ADHD in elementary school in the city of Vitória.

In this context, the problem of the study is to understand the importance of physical activity during physical education classes in the neuromotor development of children with ADHD in elementary school.

From this perspective, we recognize the need for assistance from the psychiatric, psychological and pharmacological fields for individuals with learning disorders in general, including individuals with ADHD. However, by carrying out this study we hope to contribute to the understanding that education and practice of physical activity is important in the process of improving the development of children with ADHD in addition to pharmacological assistance, since learning disorders are present in 3 to 5 % of the world's population and affects neuromotor development (FACHINE, 2018), impacting basic motor needs, in addition to difficulty in social interaction with other children.

In view of this, the work will contribute to the understanding of physical education professionals who work in elementary education, about the importance of qualified methodology aimed at this audience, as a multidisciplinary work, in addition to pharmacological.

METHODS

The research was qualitative in nature with semi-structured interviews. Initially, the research was submitted and approved by the Research Ethics Committee (CEP) containing the Free and Informed Consent Form (TCLE), which was applied to the interviewed professionals.

The professor was invited to participate in the interview by signing the Free and Informed Consent Form (TCLE) approved on June 15, 2023, by the Research Ethics Committee (CEP) for the master project with the number CAAE: 70247623.2.0000.8207, relating to the topic in question.

After approval by the Research Ethics Committee, a visit was made to the Municipal Department of Education of Vitória (SEME), in order to obtain its approval to carry out the research, in addition to a survey of which schools had the most children with ADHD in the Municipality.

The interview was carried out in the city of Vitória, with 2 physical education teachers, 2 special education teachers and 2 pedagogues from the municipal elementary school network, selected together with SEME, based on the demand for students with ADHD in schools.

At this stage, a visit to the school was carried out, where a meeting was held to carry out a semi-structured interview in order to carry out a survey to identify which methodologies were used by teachers of physical education, special education educators and pedagogues facing students with ADHD in schools and what improvements in behavior were identified after the implemented methodology and, also, what limitations were found when implementing methodologies for serving students with ADHD. Furthermore, we sought to verify which policies SEME adopts with professionals from the schools surveyed that can contribute to the care of students with ADHD.

The questionnaire is an investigation through a semi-structured interview that was carried out via WhatsApp and in person, at the teachers' choice and data collection was carried out through messages, not only with physical education teachers but also with special education teachers from schools selected due to the difficulty in finding teachers willing to participate in the interview, with a specific questionnaire for physical education teachers and another for other areas.

Participatory research has as its main objective to identify individuals who have the capacity to make researchers able to respond more efficiently to the problems of the situations in which they find themselves, facilitating the search for solutions to real problems, based on a situational diagnosis, which the participants are allocated. With this, participants are led to share roles and daily habits, in order to identify outcomes for the research problem (MARTINS, 1996).

The results were presented in a descriptive way, using criteria such as resources and the importance of legitimizing school physical education in the pedagogical context. The ethical aspects of the research were preserved, as were all the subjects involved, similar to the image of the professional interviewed and the school in question.

RESULTS

We began our search for information about data on students with ADHD at the Municipal Department of Education of Vitória (SEME/PMV). Upon arriving at SEME, the initial guidance was to direct me to the Elementary Education sector, which, at the time, was absent. After several unsuccessful attempts at telephone contact, we were informed that ADHD was not the responsibility of Elementary Education, and we were advised to contact the Special Education Department. However, we discovered that the research

could only be carried out through a service authorization protocol. After following the entire secretariat's internal procedure to obtain authorization, I returned to SEME and was thus directed to the Special Education sector, where I must speak to the Special Education Training and Monitoring coordinator (CFAEE/SEME/PMV).

When meeting the teacher responsible for the Special Education sector, it became clear that ADHD is not considered the responsibility of the Special Education Sector. If we needed more information, we must not go to that sector, but rather contact the pedagogical technician to assist with the interview. This scenario reveals a lack of preparation of professionals trained to work with this audience within SEME, highlighting the lack of clarity regarding the responsibility of students with ADHD. Finally, we were able to talk to the pedagogical technique for carrying out the interview.

During the interview with the pedagogical technique, we obtained relevant results about the presence of students with ADHD in the EMEF in Vitória. According to her, there are a significant number of students with ADHD enrolled in Elementary School I and II, totaling 105 cases associated with other disabilities covered by Special Education and 268 cases associated with other learning disorders.

The diagnosis of ADHD is carried out clinically, being a medical responsibility, and the reports and records of these cases are stored in the School Management System, but are not publicly accessible. This highlights the importance of collaboration and communication between the different sectors of education to improve the integration and effectiveness of educational policies, as emphasized by human development theorist Bronfenbrenner (1979), when highlighting the influence of different levels of environment on human development.

Regarding the SEME guidelines on ADHD, the pedagogical technique mentioned that there is no specific direction for teachers to deal with students with ADHD, given the complexity of the pathology.

However, in 2022, a Study and Work Group/Committee was established with the aim of developing guidelines related to the care of children/students with ADHD and other learning disorders. Furthermore, continuing training courses were offered to Early Childhood Education teachers, aiming to reflect on demedicalizing pedagogical practices, in line with Freire's (1996) ideas about the need for a liberating education.

The pedagogical technique emphasized the importance of the relationship between the school and families in monitoring children with ADHD, highlighting the need to open dialogue with parents. This highlight aligns with Epstein's (2010) view on the importance of the partnership between school and family for educational success.

SEME is preparing the Standard of Procedure "Guidance for the school referral of a child/student diagnosed with dyslexia or attention deficit hyperactivity disorder (ADHD) or other learning disorder", aimed at teaching units to guide pedagogical referrals. Furthermore, the document "Pedagogical Guidelines for the 2023 school year" also contains specific guidelines for working with children/students with ADHD.

In order to deepen the discussion regarding our central question, it was decided to conduct interviews with professionals, especially teachers, who work directly with students diagnosed with ADHD in elementary schools in the city of Vitória.

We started by interviewing 2 special education teachers. In the first interview, at her work institution, Teacher 1 highlighted that ADHD is not included in Specialized Educational Service. However, the Special

Education team carries out pedagogical work with different activities, valuing the potential of students with ADHD and seeking to develop their teaching and learning process.

The teacher 1 has had experience working with more than 10 students with ADHD, which has provided her with in-depth knowledge about the characteristics and needs of these students. She identified restlessness, difficulty concentrating and completing proposed activities as the main difficulties faced by these students in the classroom.

To deal with these difficulties, Teacher 1 proposed an approach that involves affinity grouping of colleagues in the classroom and shorter, more objective activities. This adaptation in teaching aims to meet the specific needs of students with ADHD, promoting an inclusive and sensitive approach.

The results of this approach were promising. The language of colleagues made it easier to approach the activities, and the change in tasks gave students with ADHD the perception that they were capable of carrying out the proposed activities, just like their colleagues. Furthermore, they had time to carry out their activities and move around the classroom, contributing to an increase in their feeling of accomplishment and inclusion in the school environment.

In the second interview, Teacher 2, with more than 20 years of experience as an educator in the field of Special Education, shared her perspective and practices regarding working with students with ADHD in her inclusive classroom.

Unlike Teacher 1, the topic of ADHD was not addressed during Teacher 2's academic training. However, she sought a specialization in Inclusive Education to deal with the diversity of students in her classroom.

Although ADHD is not the target audience for Special Education at the institution where she works, Teacher 2 adopts a different

approach towards these students. She highlights the importance of partnership with the families of students with ADHD, maintaining a constant dialogue and seeking joint strategies for student development.

The interviewee also mentioned that she worked with more than 5 students with ADHD throughout her career. She emphasized that the number of students with characteristics of dispersion and agitation has increased at the school, which demands a sensitive and adapted approach to meet their needs.

To deal with the difficulties faced by these students, Teacher 2 uses different approaches. Dialogue with families is essential to understand the context in which the student is inserted and seek joint strategies for their development. Furthermore, the educator creates adapted activities, taking into consideration, the specific needs of each student with ADHD, and respects each one's individual learning time, seeking alternatives and methods suited to the individual pace.

The two teachers presented adapted approaches and pedagogical strategies to promote the inclusion and development of students with ADHD in their classrooms. Both highlighted the importance of working with differentiated activities and respecting each student's learning time.

The partnership with the family was highlighted as an essential practice to understand the student's context and seek joint strategies for their development. These practices reflect the teachers' commitment to providing a welcoming learning environment conducive to the progress of all students, regardless of their specific difficulties.

In the interview with physical education teachers, Teacher 1 also mentioned the lack of direct guidance from the Municipal Department of Education of Vitória in relation to working with students with ADHD. She reported that the complexity of

the disorder may be one of the reasons for the lack of specific guidelines. Furthermore, the lack of research and statistics in SEME makes it difficult to understand the real number of students with ADHD in the network.

Regarding the diagnosis of ADHD, Teacher 1 highlighted that this attribution is clinical and a medical responsibility. However, teachers are often the first to notice behaviors that may indicate the need for medical monitoring for the student. She highlighted that, in some situations, a lack of knowledge about the disorder can make it difficult to identify students' difficulties.

Regarding SEME's guidelines regarding working with students with ADHD, Teacher 1 explained that there are no specific guidelines. The approach is applied to all students, with a sensitive and patient look at those who have difficulties, including those with ADHD. Specific training related to the target audience of special education is offered mainly to teachers specialized in the area.

In turn, Teacher 2, with 17 years of experience working in the area of Physical Education, revealed that he also did not receive a specific approach to ADHD during his graduation. He chose to specialize in the area through a postgraduate degree in Inclusive Special Education, seeking to improve his skills to deal with the diversity of students in the classroom.

The teacher 2 highlighted the significant presence of students with ADHD in his professional experience, estimating more than 10 cases. He realizes that, for the most part, these students have greater motor limitations than their classmates, which requires care when adapting activities.

To deal with this situation, Teacher 2 uses the strategy of dividing tasks in a circuit format, allowing all students to help each other. He also carries out tasks, focusing on developing the motor skills of all students, always respecting individual limits.

The teacher highlighted that, by adopting this inclusive approach in his classes, he realizes that students with ADHD are able to develop satisfactorily. Furthermore, their classmates, who at first might have shown some resistance, end up embracing these students and contributing even more to their development, consolidating the effective inclusion that occurs in their pedagogical practice.

Taken together, the interviews with Teacher 1 and Teacher 2 revealed different challenges and approaches in the context of Physical Education in relation to ADHD. The absence of specific guidelines from SEME and the lack of research and statistics can make working with students with ADHD difficult. However, sensitivity, stimulation and mutual support are fundamental for the development and inclusion of these students in the school environment. Both teachers demonstrated commitment to finding ways to promote the participation of all students, regardless of their abilities and limitations, aiming for a more inclusive and welcoming school environment.

In the interview with the pedagogical staff, the objective of the interviews was to explore how the school identifies and deals with students with ADHD (Attention Deficit Hyperactivity Disorder) in its pedagogical context.

In the interview with Pedagogue 1, the importance of multidisciplinary identification of students with ADHD was highlighted. Through observations made by teachers, parents or guardians and health professionals, the school can suspect the presence of this disorder. After this identification, it is essential to notify parents or guardians so that they are informed about the suspected ADHD and encouraged to seek a professional evaluation and diagnosis for the student. The collaboration of everyone involved is essential to guarantee the necessary support

for the student, both academically and socio-emotional.

In the interview with Pedagogue 2, the importance of careful observation by teachers in identifying students with ADHD was emphasized. Pedagogue 2 mentioned that the first signs of identification are observed by teachers, such as extremely agitated behavior or significant learning difficulties, which differ from the development expected for a student in relation to their age and grade. This close observation allows the school to take the necessary steps to better understand the student's family context and refer them for appropriate assessment and support.

Regarding guidelines for working with students with ADHD, Pedagogue 1 shared several strategies adopted by the school, such as adapting the learning environment, establishing routines and structure, reducing tasks, encouraging organization, providing immediate and positive feedback, among others. Pedagogue 2 highlighted that, if the student is diagnosed with ADHD, the pedagogical team takes measures such as asking the student to sit close to the teacher, preferably at the front of the room, and asking for a closer look from teachers for this audience, even other than the target audience for special education. In addition, an intern is required to accompany the student during the test weeks to provide support to the student.

In relation to planning the educational process for students with ADHD, both pedagogues highlighted the importance of communication between the management, pedagogical team, family and teachers. Pedagogue 1 mentioned that the collaboration of the entire team is essential to ensure that the student receives the necessary support. Pedagogue 2 reinforced that information about the student's diagnosis with ADHD is shared with teachers, and the pedagogical team intervenes to ensure an appropriate

pedagogical approach. This involvement aims to create an environment of support and care for the student, seeking to meet their specific needs.

Regarding the assessment of the academic performance of students with ADHD, both pedagogues highlighted the importance of carrying out an analysis of the student's progress during the class council. Pedagogue 1 mentioned that the pedagogical team takes into consideration, not only the results of activities and tests, but also the student's progress over time, valuing effort and dedication, even if the results are different from those of other students. Pedagogue 2 added that this assessment aims to understand the academic development of each student, identify possible difficulties and make pedagogical decisions to help the growth of all students.

In short, interviews with Pedagogues 1 and 2 revealed the importance of multidisciplinary identification of students with ADHD, through careful observation of teachers. Collaboration between everyone involved, including parents or guardians and health professionals, is essential to ensure the necessary support for the student. Furthermore, adapting the learning environment, communication between the pedagogical team and teachers, and the careful assessment of academic performance were highlighted as fundamental practices to promote a more inclusive and welcoming school environment for students with ADHD. This information contributes to reflection on appropriate pedagogical approaches and to the promotion of a supportive environment in the educational context.

DISCUSSION

In the interviews carried out, we sought to deepen our understanding of the pedagogical approaches adopted by teachers in facing the challenges faced by children with ADHD. Our objective was to investigate the strategies used to promote not only learning, but also the social integration and global development of these students. In this sense, we sought theoretical inferences that reflected the importance of collaboration between the different sectors involved in the educational process.

The responses obtained revealed a complex network of interactions, where even the sectors responsible for educational policies, such as the Department of Education (SEME), are not always in perfect harmony. This aligns with theories such as Bronfenbrenner, which highlights the influence of different levels of environment on human development, including the microsystem (immediate environment), the mesosystem (interactions between microsystems) and the macrosystem (cultural and political values) (BRONFENBRENNER, 1979).

We also inquired about the approach of the school and its professionals in relation to the specific difficulties faced with the materials offered by SEME for students with ADHD. We explore how the Department of Education (SEME) provides support in this context and how the school community is involved. Furthermore, we address the role played by the National Common Curricular Base (BNCC) in this scenario.

The BNCC, as a normative guideline, provides guidelines that seek to value meaningful learning and promote the integral development of students. It emphasizes curricular flexibility, which aligns with adapting pedagogical approaches to meet the individual needs of students with ADHD. Furthermore, the valorization of socio-emotional skills, present at BNCC, recognizes the

importance of the emotional and social development of these students (BNCC, 2017).

However, the responses obtained revealed that these guidelines are not always fully implemented. The interviews indicated the existence of challenges in integrating the strategies recommended by the BNCC into everyday school life. This highlights the complexity of applying educational policies and the role of the actors involved in implementing them.

With regard to the schools' Political-Pedagogical Project (PPP), we observed that its compliance with the BNCC and SEME guidelines varies. While some schools seem to adopt an approach more aligned with these policies, others still seek to integrate such guidelines into their teaching plans.

Finally, we asked about teachers' knowledge and awareness of these guidelines. Responses varied, with some educators demonstrating a clear understanding of current education policies, while others appeared to have a more limited understanding.

Taken together, the interviews revealed the complexity of the interaction between educational policies, pedagogical practices and the reality of classrooms. This highlights the importance of a multidisciplinary approach, in line with theories such as Vygotsky's, which emphasizes cultural and social mediation in the learning process. Collaboration between educators, managers, parents and the school community as a whole is essential to ensure the effective implementation of educational policies and the integral development of students with ADHD (VYGOTSKY, 1978).

FINAL CONSIDERATIONS

By knowing what was presented above, we can problematize the lack of clear guidelines from SEME in relation to ADHD and the absence of specific training for educators. The complexity of the disorder requires a sensitive approach and strategies adapted to meet the specific needs of students with ADHD. Lack of knowledge about the disorder can negatively impact the early identification of students' difficulties and the development of appropriate pedagogical approaches.

Furthermore, although physical education plays a significant role in the development of these children, the lack of clear guidance from SEME can generate insecurity and uncertainty among teachers, making it difficult to work with students with ADHD and implement inclusive practices in schools. The lack of statistics on the real number of students with the disorder in the education system also prevents a more accurate analysis of the situation and the development of more effective educational policies.

Therefore, it is essential that SEME develop specific guidelines for working with students with ADHD, providing clear and practical guidance for educators. The training and continuing education of teachers is also essential so that they can deal more effectively with the demands of students with ADHD

in the classroom and in physical education classes.

Furthermore, it is important that SEME invests in research and statistics to understand the real dimension of the ADHD problem in schools in Vitória. This will allow for better planning and the implementation of more inclusive and effective educational policies to meet the needs of all students, regardless of their specific difficulties.

Finally, it is necessary to promote greater integration between SEME sectors, avoiding bias in information and problem solving and ensuring joint and collaborative action to care for students with ADHD. The partnership between schools, families and health professionals is essential to promote a welcoming, inclusive school environment that values the potential of each student.

In summary, the discussion of the interview results reveals the complexity and challenges faced by educators in relation to ADHD in the school context. The lack of specific SEME guidelines, the lack of adequate training and the lack of statistics on the disorder are some of the points that deserve attention and action by government bodies. The search for a more inclusive pedagogical approach, constant dialogue with families and integration between SEME sectors can significantly contribute to the development and inclusion of students with ADHD in the school environment.

REFERENCES

BANDURA, A. Social Learning Theory. Prentice-Hall. 1977.

BRASIL. Ministério dos Direitos Humanos e da Cidadania. O estatuto da criança e do Adolescente – ECA. Disponível em: <<https://www.gov.br/mdh/pt-br/navegue-por-temas/crianca-e-adolescente/publicacoes/o-estatuto-da-crianca-e-do-adolescente>> Acesso em:17 abril 2023.

BRONFENBRENNER, U. The Ecology of Human Development. **Cambridge, MA: Harvard University Press**, 1979.

CAVALCANTI, C.R; MOREIRA, J.C.C. Estratégias de Ensino e Recursos Pedagógicos para o Ensino de Alunos com TDAH em Aulas de Educação Física. **Rev. bras. educ. espec.** V.21, n.1, Jan-Mar 2015

ÇAVUŞ, M. F., & İNCE, F. Analysis of teachers' attitudes towards inclusive education. **Universal Journal of Educational Research**, v.5, n.11, p.1990-1999, 2017.

COUTO, T. S., MELO, M. R.; GOMES, C. R. A. ASPECTOS NEUROBIOLÓGICOS DO TRANSTORNO DO DÉFICIT DE ATENÇÃO E HIPERATIVIDADE (TDAH): **uma revisão. Ciências & Cognição**, v.15, n.1, p. 241-251, 2010.

EPSTEIN, J. L. School, Family, and Community Partnerships: Your Handbook for Action. Thousand Oaks, CA: **Corwin Press**, 2010.

FARAONE, S. V., et al. Attention-deficit/hyperactivity disorder. **Nature Reviews Disease Primers**, v.1, n.1, p.1-23, 2015.

FORLIN, C. Teacher education for inclusion: changing paradigms and innovative approaches. **European Journal of Teacher Education**, v.33, n.3, p.263-279, 2010. Gardner, H. (1983). Frames of Mind: The Theory of Multiple Intelligences. **Basic Books**.

KOCA, C. Physical Education Teacher Education for the 21st Century: Lessons from Turkey. In **Teacher Education for the 21st Century** (pp. 101-116). Springer, 2020. MARTINHAGO; CAPONI. TDAH em crianças e adolescentes: estudo com professores em uma escola pública do sul do Brasil. **Cadernos Brasileiros de Saúde Mental/Brazilian Journal of Mental Health**, v.11, n. 30, p. 78-98, 2019. DOI: 10.5007/cbsm.v11i30.69727. Disponível em: <https://periodicos.ufsc.br/index.php/cbsm/article/view/69727>. Acesso em: 17 abril. 2023.

MORTON, M., & DALTON, S. Inclusion of students with disabilities in New South Wales public schools. **Australasian Journal of Special Education**, v.31, n.2, p.161- 176, 2007.

UNINTER, I.S.D. TDAH e a importância de um diagnóstico precoce. **Educação, cognição e inclusão**. V.11, n.32, 2022.

SILVA, M.L. Psicomotricidade e atividades lúdicas para alunos da educação básica que apresentam TDAH. **Universidade de Brasília – UNB**. 2011.

Vygotsky, L. S. (1978). Mind in Society: The Development of Higher Psychological Processes. **Harvard University Press**.