

Qualitative Assessment of ADHD Impact on the School and Emotional Environment of an Ecuadorian Student

Evaluación del impacto del TDAH en el entorno escolar y emocional de un estudiante ecuatoriano

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ABSTRACT

Introduction: Attention Deficit Hyperactivity Disorder (ADHD) is a neurobiological condition that affects the academic, emotional, and social development of children and adolescents. Its diagnosis and management require a comprehensive understanding of the factors influencing the school and family environment.

Objective: to evaluate qualitatively the impact of ADHD on the school and emotional environment of an Ecuadorian student.

Method: a qualitative study was conducted at the municipal school "Ciudad del Norte" (Los Ríos, Ecuador), using direct observation, interviews with the Student Counseling Department (DECE), the classroom teacher, and the legal guardian, along with the application of the "Knowing My Emotions" test. Five areas were assessed: learning, emotional self-regulation, inclusion, family communication, and school environment.

Results: persistent difficulties were identified in attention, organization, and task completion. The projective test showed low scores in emotional management and problem-solving. Family communication revealed limited support, and school inclusion faced social barriers. The teacher applied differentiated strategies, though constrained by the lack of family involvement. DECE acted as an institutional coordinator, with interventions driven by case urgency.

Conclusions: difficulties were evident in learning, self-regulation, and inclusion. Institutional and teaching participation proved essential but was limited without family commitment.

Keywords: ADHD; Qualitative Assessment; School Environment; Emotional Self-Regulation; Family Communication; Educational Inclusion.

RESUMEN

Introducción: el Trastorno por Déficit de Atención e Hiperactividad (TDAH) es una condición neurobiológica que afecta el desarrollo académico, emocional y social de niños y adolescentes. Su diagnóstico y abordaje requieren una comprensión integral de los factores que inciden en el entorno escolar y familiar.

Objetivo: evaluar cualitativamente el impacto del TDAH en el entorno escolar y emocional de un estudiante ecuatoriano.

Método: se realizó un estudio cualitativo en la escuela municipal "Ciudad del Norte" (Los Ríos, Ecuador), mediante observación directa, entrevistas al Departamento de Consejería Estudiantil (DECE), a la docente tutora y al representante legal, además de la aplicación del test "Conociendo mis emociones". Se evaluaron cinco áreas: aprendizaje, autorregulación emocional, inclusión, comunicación familiar y entorno escolar.

Resultados: se identificaron dificultades persistentes en la atención, organización y finalización de tareas. El test proyectivo evidenció baja puntuación en manejo emocional y solución de problemas. La comunicación familiar mostró escaso apoyo, y la inclusión escolar presentó barreras sociales. La docente implementó estrategias diferenciadas, aunque limitadas por la falta de compromiso familiar. El DECE actuó como articulador institucional, con intervenciones condicionadas por la urgencia de los casos.

Conclusiones: se evidenciaron dificultades en el aprendizaje, la autorregulación y la inclusión. Se constató que la participación institucional y docente es clave, pero limitada sin el compromiso familiar.

Palabras clave: TDAH; Evaluación Cualitativa; Entorno Escolar; Autorregulación Emocional; Comunicación Familiar; Inclusión Educativa.

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a neurobiological health problem that affects a large number of children, especially boys, and can manifest itself from an early age.⁽¹⁾ It is a common neurological syndrome characterized by hyperactivity, impulsivity, and poor attention span, which are inappropriate for the child's level of development.^(2,3) The American Psychiatric Association (APA) states that it significantly affects the academic performance, social adjustment, and emotional well-being of adolescents.^(4,5)

The exact cause of ADHD has not yet been clearly identified, but it is believed that a combination of genetic and environmental factors may be responsible.⁽¹⁾

Authors such as H. Hoffman⁽⁶⁾ described students with attention deficit and hyperactivity in the mid-19th century. However, it was not until 1970 that the American Psychiatric Association, in its Diagnostic and Statistical Manual of Mental Disorders, replaced the previous term "minimal brain dysfunction" with ADHD.

It is one of the most frequent diagnoses among children and adolescents, and the most common among young people. It is estimated that between 2 and 12 % of children and 2,5 to 5 % of adults suffer from it.⁽²⁾ Data from the World Health Organization (WHO) estimate that it affects around 2,4 % of adolescents aged 12 to 19.⁽⁴⁾

It is associated with an alteration in the harmonious development of affected individuals, as well as significant family disturbances. It is known that up to 50 % of children with ADHD have poor relationships with their peers, and up to 70 % of children have no friends due to their significant limitations in participating harmoniously in social interactions typical of their age.⁽²⁾

These are children who find it difficult to pay attention to the details of the tasks they perform, seem not to listen when spoken to directly, are very imaginative, and quickly jump from one thought to another. They find it challenging to start their chores, sometimes forgetting what they had to do and where their belongings are. They often make mistakes due to carelessness; for example, when getting dressed, they may button their shirt incorrectly or put their T-shirt on backward. They resist doing tasks that require effort.⁽⁶⁾

At school, these children generally perform poorly. Their notebooks and work are disorganized and sloppy; they do not write down their homework and exams in their diaries, so they often fail to complete them. Their exams are unfinished, and their answers are not always in the correct spaces. They lose their materials or forget to bring them. In general, they are labeled as unintelligent, lazy, and unmotivated children.⁽⁶⁾

The impact of ADHD on a person can vary from one individual to another, depending on several factors, such as the severity of the symptoms and the quality of treatment received. In some cases, ADHD can be severe enough to affect a child's ability to function in school and society in general, which can have long-term consequences in terms of their emotional well-being and future academic and work performance.⁽¹⁾

In light of the above, it was decided to conduct this research to qualitatively assess the impact of ADHD on the school and emotional environment of an Ecuadorian student.

METHOD

A qualitative study was conducted on the behavior, academic performance, self-regulation, peer relationships, and family relationships of a student at the "Ciudad del Norte" municipal school, located in the Venus del Rio Quevedo parish in the province of Los Ríos, Ecuador. Through observation, a patient diagnosed with ADHD was analyzed in his educational environment in order to understand individual, group, emotional, and academic dynamics.

Data collection was conducted within the school through interviews with the tutor and legal representative, as well as tests designed to assess self-regulation.

- An observation sheet was used to systematically record the student's behavior and reactions in specific situations within the educational environment. This tool enabled the collection of qualitative data on students' interactions with others and academic performance.
- In order to obtain information about the student's learning and development, an interview was conducted with the Student Counseling Department (DECE) and the tutor. The questions were divided into sections, which in turn were divided into open and closed questions.

Five (5) areas were evaluated using a *checklist*: learning, emotional self-regulation, inclusion, family communication, and school environment. Each section consisted of 10 questions with yes or no answers. The learning section evaluated key aspects, including concentration, following instructions, completing tasks, reading and writing comprehension, and organizing school materials.⁽⁷⁾

The emotional self-regulation section examined the students' ability to manage their emotions and behaviors, including impulse control, identification and expression of emotions, frustration tolerance, and the capacity to resolve conflicts in a non-aggressive manner. It also analyzed whether the educational environment and peers facilitated the student's integration, inquiring about the adaptation of teaching strategies, the availability of adapted materials or resources, and participation in academic and recreational activities.

On the other hand, family communication focuses on the perception and support that the student receives from their family at home. At the same time, the school environment was examined in terms of its physical organization and dynamics,

including the availability of spaces that facilitate concentration or emotional regulation, as well as communication between teachers and families.

- The test “Knowing My Emotions” by psychologist César Ruíz Alva,⁽⁸⁾ was administered to assess self-regulation, and the results obtained allowed for an objective measurement of possible difficulties. It is suitable for children from third grade through first grade of secondary school (ages 8 to 12). It assesses areas of socialization, self-esteem, problem-solving, happiness and optimism, and emotion management, which is supported by the Theory of Emotional Intelligence proposed by Salovey and Mayer.

The analysis was completed by consulting various documents and studies on the assessment of patients with ADHD, including scientific articles, books, and educational standards.

The data obtained from the psychometric test and interviews were entered into a Microsoft Excel spreadsheet, which allowed them to be grouped into tables. This facilitated the systematization of the results and improved their analysis.

Informed consent was obtained from the patient’s legal guardians, and it was explained at all times that they could withdraw from the study if it caused any discomfort or dissatisfaction. The data used does not allow the patient to be identified.

RESULTS

Psycho-educational interview with the DECE

It was found that the observations made by the DECE were carried out every week, prioritizing the most urgent cases and those with the most significant learning difficulties. To assess these academic difficulties, they considered various elements: student performance, interviews with teachers, and direct observations in the school environment.

Among the specific educational needs identified, learning difficulties were found to be the most common, which are detected through psycho-pedagogical evaluations, reports issued by teachers, and systematic observations. Communication with families is established through scheduled meetings. In the event of discrepancies between the observations made by the DECE and those reported by the teacher, a joint meeting is organized to analyze the evidence and reach a consensus.

The process established for the presumptive diagnosis of students included an initial phase that involved observations, interviews, and diagnostic tests. If a possible specific educational need is identified, parents or legal guardians are informed, and an external evaluation with a specialist is recommended. Case follow-up is documented through detailed records, periodic reports, and meetings with teachers and families.

Psycho-pedagogical interview with the homeroom teacher

She reported observing frequent distraction, disruptive behavior, and poor academic performance in the students. Regarding schoolwork, some students exhibited signs of frustration but managed to complete their assignments, while others sought help or collaborated with their classmates to complete their tasks. However, one student had persistent difficulties. The teacher also noted a low level of interest in academic activities, especially after recess or during the last hours of class.

To address these situations, the teacher adapted activities to the individual needs of students and applied various teaching strategies. She considers family support to be essential, as well as the implementation of differentiated methodologies by the teaching staff to promote school performance. In addition, she emphasized the importance of promptly notifying the DECE and referring the student when deemed necessary. In this process, the student’s data, the difficulties observed, and the previous interventions carried out are documented. It should be noted that, in the case of one particular student, multiple alerts had been issued due to learning difficulties, disruptive behavior, and problems staying in the classroom.

Table 1 shows that the first indication was an impact on family communication, with a total of 9 negative responses and one positive response. This was followed by emotional self-regulation, with a total of 8 negative responses and two positive responses, and learning, with seven negative responses and three positive responses.

Learning development	Yes	No
Family communication	1	9
Emotional self-regulation	2	8
Learning	3	7
Inclusion	4	6
School environment	5	5

Interview with the teacher and student on learning and emotional self-regulation

Based on the teacher’s assessment of academic performance, difficulties were observed in maintaining attention during prolonged tasks, as well as problems related to organization and time management. The student’s academic performance was variable and depended primarily on their interest in the subject and the teaching strategies employed. Despite demonstrating creative potential and skills in practical activities, the student had difficulties with written assessments and completing lengthy tasks. To mitigate these challenges, adaptations such as visual aids and brief, concrete instructions were implemented.

In terms of emotional self-regulation, active breaks were implemented as a support strategy to enhance emotional well-being. However, it was suggested that spaces be incorporated within the classroom to allow the student to self-regulate without feeling isolated. Teacher training, establishing a structured environment with clear routines, using visual organizers, and other strategies that promote students' emotional self-regulation were also considered necessary.

In relation to the student's own perception, he demonstrated strengths in areas such as creativity and logic, and it was evident that he benefited from a calm environment for his learning process. Although he had good relationships with his teachers, he stated that some classmates bothered him, which could have impacted both his emotional well-being and academic performance. His interest in school was strongly linked to the presence of his teacher, who provided support at key moments.

Descriptive record of classroom observations

It was observed that the student had difficulty maintaining attention, required constant reminders to resume his tasks, and did not complete his activities. On the other hand, difficulties in emotional self-regulation were detected; he reacted inappropriately to undesirable situations and constantly interrupted the class.

It was observed that the teacher used appropriate materials to facilitate the student's learning, which was evident in both the anecdotal record and the interview, indicating that the student benefited from a visual and practical learning style. However, it should be noted that the student did not take notes in class or on assignments, which gives a perspective on academic performance from this point of view.

Interview with the legal representative

The results indicate that the student had low motivation for schoolwork, lacked effective support strategies at home, and relied heavily on interaction with the teacher for learning. In terms of emotional self-regulation, it was observed that he reacted aggressively, even hitting family members and classmates when situations did not go according to his wishes. It was observed that the family showed no commitment to managing the student's emotions and school activities, which negatively impacted family dynamics and his social integration.

Projective test "Knowing my emotions"

The results obtained from the test administered to the student with ADHD are presented in table 2, which shows scores of 18 for socialization, 26 for self-esteem, 16 for problem-solving, 21 for happiness and optimism, and 13 for emotion management, indicating a low category for his emotions.

Aspect	Score
Socialization	18
Self-esteem	26
Problem solving	16
Happiness-optimism	21
Emotion management	13

DISCUSSION

The evaluation carried out enables us to reflect on the complexity of ADHD in the Ecuadorian school context, demonstrating that its impact extends beyond the academic sphere to encompass the family, social, and emotional dynamics of the student. The case analyzed reveals that, although there are institutional efforts to identify and support students with specific educational needs, structural and methodological limitations persist that hinder the provision of comprehensive care.

It is necessary to strengthen emotional education in students in order to achieve an adequate medical, psychological, and pedagogical diagnosis and treatment for children with ADHD. Emotional education can also be beneficial in enhancing relationships between students and promoting a healthy, positive learning environment. By strengthening emotional education, children can develop valuable skills that enable them to face life's challenges and grow optimally.⁽¹⁾

A neuropsychological evaluation of these patients is essential for accurate diagnosis. A comprehensive clinical evaluation is necessary, including both language skills and the detection of possible cognitive deficits or psychopathological disorders.^(9,10,11) Differential diagnosis should be made with other pathologies that present similar symptoms, such as oppositional defiant disorder (ODD), depressive or anxiety disorders, and conduct disorder. However, it has been found that ADHD, ODD, and conduct disorder coexist in 40-60 % of patients.⁽¹²⁾

One of the most significant findings was the impact on family communication, with nine negative responses on the *checklist* given to the teacher, suggesting little involvement from the home environment in the child's educational process. This lack of family support not only compromises the continuity of learning outside the classroom but also directly affects the student's emotional self-regulation, as demonstrated by the low score on the "Knowing My Emotions" test, particularly in the areas of emotion management and problem-solving. This correlation between the family environment and emotional management has been identified as a critical factor in the harmonious development of children with ADHD by authors such as Moreira Arteaga⁽¹¹⁾ and Bedoya Cataño.⁽¹³⁾

In any case, ADHD symptoms impair the emotional, cognitive, and social development of children and adolescents, hindering their learning in the classroom and their adaptation to new situations. This is a challenge for teachers because many students with ADHD have difficulties in school.⁽⁷⁾

Likewise, it is observed that the student has persistent difficulties in attention, organization, and task completion, which coincides with the diagnostic criteria described by the American Psychiatric Association.⁽⁴⁾ Although the teacher implemented differentiated strategies and visual materials to facilitate learning, the results of *the checklist* showed that the area of learning was also compromised, with seven negative responses. This suggests to the authors that pedagogical adaptations, although necessary, are not sufficient if they are not accompanied by a structured environment and continuous teacher training, as discussed in the interviews conducted.

The authors consider it valid to clarify that the impact of the condition goes beyond age, as studies of adults with a history of ADHD in childhood have shown in long-term follow-up that poor job performance (unemployment or difficulties in finding employment), high financial stress, and antisocial disorder are more common after the age of 30.⁽¹²⁾

Pharmacological treatment has historically been the first line of treatment. Drugs such as methylphenidate and atomoxetine show short-term symptomatic efficacy. However, their sustained use can cause adverse effects, including insomnia, loss of appetite, or mild cardiovascular discomfort.⁽⁴⁾ The response to treatment depends on several factors, including age, with a better response to treatment in cases of late-onset ADHD. Gender has also been described as a variable in immediate/mediate response to treatment, with girls requiring higher doses than boys.⁽¹²⁾ However, parallel to drug therapy, actions are emerging in the patient's environment to modify the environmental factors that perpetuate/emphasize symptoms.

ADHD is a clinical diagnosis that can be evaluated using useful tools, such as international diagnostic manuals, which help recognize that, as a neurodevelopmental condition, symptoms can be interpreted in an evolutionary context.^(7,14,15)

The projective test revealed relatively preserved self-esteem (score of 26), which is a potential strength for the therapeutic approach in this case. However, the low score in socialization (18) and the student's own perception of bullying by peers indicate that school inclusion still faces significant barriers. This situation highlights the importance of implementing coexistence and emotional education strategies that foster empathy and respect among peers at the school.

On the other hand, the role of the DECE was presented as a coordinating axis between teachers and families. However, its intervention was conditioned by the urgency of the cases and institutional availability. The presumptive diagnosis process, based on observations and interviews, reflected an intention to systematize, but also highlighted the need to strengthen neuropsychological assessment as a diagnostic tool, as proposed in the reviewed literature.

Finally, it should be emphasized that the approach to ADHD cannot be limited to pharmacological treatment, despite its short-term symptomatic efficacy. The present study demonstrates that educational and emotional interventions play a crucial role in student well-being, particularly when considering that ADHD symptoms impact emotional, cognitive, and social development across all domains. In this sense, the authors reaffirm that diagnosis must be multidimensional and that treatment must consider both the school and family contexts, with an emphasis on emotional education as a preventive and rehabilitative tool.

Among the main limitations of this research are its qualitative nature, which focused on analyzing a single case, when a multicenter comparative study could have been conducted in the area. For future research, quantitative studies and interventions are proposed following the initial evaluations.

CONCLUSIONS

The evaluation allowed us to characterize the impact of ADHD on a student's school, family, and emotional environment, revealing difficulties in learning, self-regulation, and inclusion. It was found that institutional and teacher participation are key but limited without family commitment. The diagnosis must be approached from a multidimensional perspective, integrating pedagogical, emotional, and social aspects.

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