

DEVELOPMENT OF EMOTIONAL INTELLIGENCE IN PRESCHOOLERS WITH ADHD: A CASE STUDY IN AN EDUCATIONAL CENTER IN MANTA-MANABÍ-ECUADOR
DESARROLLO DE LA INTELIGENCIA EMOCIONAL EN PREESCOLARES CON TDAH: UN ESTUDIO DE CASO EN UN CENTRO EDUCATIVO DE MANTA-MANABÍ-ECUADOR

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ABSTRACT

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This research focused on the significance of emotional education in preschoolers with ADHD in an educational center in Manta-Manabí-Ecuador. The aim of this study was to contribute to the improvement of emotional intelligence in a child with Attention Deficit Hyperactivity Disorder (ADHD), as a way of promoting comprehensive development and proposing strategies to work on emotional self-control in preschoolers. A quasi-experimental case study was conducted using a qualitative, exploratory, descriptive, and applicative approach. The study involved a 4-year-old boy with ADHD who attends the educational center and displays hyperactivity traits. The child does not participate in activities voluntarily and takes what he wants with some aggression. Information was collected through a semi-structured interview, a behavior questionnaire based on the Conners scale of emotional intelligence, and the analysis of experiences during personalized attention sessions with the student. The results showed significant improvement in emotional intelligence indicators in the child. This study contributes to the enhancement of emotional education in preschoolers with ADHD and highlights the importance of working on emotional self-control and comprehensive development. The findings of this research could be useful for other educational centers and professionals who work with children with ADHD and other emotional difficulties.

RESUMEN

Palabras clave:

La presente investigación se enfocó en la importancia de la educación emocional en preescolares con TDAH en un Centro Educativo de la ciudad de Manta-Manabí-Ecuador. El objetivo fue mejorar la inteligencia emocional en un niño de 4 años con TDAH, a

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inteligencia socioemocional, primera infancia, TDAH, educación emocional.

través del desarrollo integral y el trabajo en el autocontrol emocional. Se llevó a cabo un estudio de caso cuasi-experimental utilizando un enfoque cualitativo, exploratorio, descriptivo y aplicativo. El participante fue un niño con TDAH que presenta rasgos de hiperactividad y no participa en actividades de manera voluntaria, mostrando cierta agresividad al tomar lo que quiere. Se utilizó una entrevista semi-estructurada, un cuestionario de conducta basado en la escala de Connors de inteligencia emocional y el análisis de sesiones de atención personalizada al estudiante para recopilar información. Los resultados indican una mejora significativa en los indicadores de inteligencia emocional del niño. Este estudio aporta al mejoramiento de la educación emocional en niños con TDAH y destaca la importancia del trabajo en el autocontrol emocional y el desarrollo integral en preescolares. Los hallazgos de esta investigación podrían ser de utilidad para otros centros educativos y profesionales que trabajan con niños con TDAH y otras dificultades emocionales.

Introduction

Attention Deficit Disorder (ADD) is a neurobiological health problem that affects a large number of children, especially boys, and can manifest itself from an early age. The exact cause of ADD has not yet been clearly identified, but it is believed that a combination of genetic and environmental factors may be responsible. Children with ADD have difficulty maintaining attention and impulse control, which can lead to academic, behavioral and relationship problems. According to international statistics, ADD is a public health problem, as it can have serious consequences in the lives of affected children, such as low self-esteem, depression and anxiety (Tuirán, 2021).

In addition, in Latin America, Autism Spectrum Disorder (ASD) can also lead to ADD. According to statistical data, the incidence of ASD in Latin America is 2.2%, of which 17.8% are preschoolers (Tuirán, 2021). This indicates the need for greater attention and care for children with ADD. Parents and healthcare professionals should be aware of the signs of ADD and seek early help to ensure the child's well-being.

Therefore, in Ecuador, 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 ADD. Emotional education can also be useful in improving the relationship between students and fostering a healthy and positive learning environment. By strengthening emotional education, children can be helped to develop valuable skills that enable them to face life's challenges and develop optimally (García and Domínguez, 2014).

The purpose of the present research was to improve the emotional intelligence of a four-year-old child with ADHD through a comprehensive approach focused on emotional development and strengthening self-control. To this end, a quasi-experimental case study was carried out using a qualitative, exploratory, descriptive and applicative methodology.

This work is part of a broader research conducted in the context of the Master's Degree in Basic Education of the Postgraduate Unit of the Universidad Laica Eloy Alfaro de Manabí. The focus of the research was on the development of emotional skills and impulse control in a child with ADHD, in order to improve his quality of life and academic performance.

Attention Deficit Disorder

ADHD is characterized by consistently poor emotional self-regulation and a tendency toward impulsivity (Barkley and Murphy, 2010). These difficulties can manifest themselves in different ways depending on the child's stage of development, with hyperactivity, oppositional behavior, tantrums and inattention being more prevalent at preschool age (Rusca and Cortez, 2020).

The specialized literature generally employs a historical argument from children's literature to defend the diagnostic validity of ADHD. In Dr. Heinrich Hoffman's work "Pedro Melenas" we find a character with characteristics very similar to ADHD. However, upon researching those same historical sources, one can see how unjustified that argument is (de Vinuesa, 2017).

García (2017) presents a historical overview of ADHD from the 18th century to the present. The following milestones are highlighted according to:

- In 1763-1856, the Scottish physician Alexander Crichton described "pathological inattention" as an inability to sustain attention.

- In 1809-1894, the German psychiatrist Heinrich Hoffmann created the character "Restless Philip" to represent inattention and easy distraction in the face of strange obstacles.
- In 1868-1941, British pediatrician George Frederic Still described "moral control deficiency" as a common feature in male children with impulsivity and inability to maintain attention.
- In 1930, the term "hyperkinetic infantile disease" was coined to describe the marked motor restlessness.
- In 1937, American psychiatrist Charles Bradley revolutionized the treatment of ADHD by using the stimulant drug Benzedrine.
- In 1954, methylphenidate was developed and is now recognized as the most effective psychostimulant for the treatment of ADHD.
- In 1960-1968, the DSM-III first included the term "infantile hyperkinetic reaction" in its diagnostic manual, based on direct observation of the child's behavior rather than looking for a neurological cause.
- In 1970, the DSM-III changed the name to "attention deficit disorder" and recognized that ADHD could present in two types: with or without hyperactivity.
- In 1990, the DSM-IV identified three subtypes of ADHD and recognized that the disorder persisted into adulthood.
- ADHD is currently characterized by a list of 18 symptoms divided between inattention and hyperactivity/impulsivity, and is described as a persistent pattern that interferes with functioning and development.

ADHD itself is a multifactorial neurobiological disorder with a genetic basis and high heritability. In addition, several neuropsychological factors are implicated in ADHD (da Silva and Rodrigues, 2022). Although the exact cause of ADHD is unknown, there are several factors that may contribute to its onset. For example, some studies suggest that ADHD may be related to childhood history of abuse or neglect, different situations of adoption, foster care, exposure to neurotoxicants, infections, exposure to drugs in utero, low birth weight, and mental retardation.

ADHD is divided into three subtypes: predominantly inattentive, predominantly hyperactive-impulsive and combined (Thapar et al., 2012). Children with ADHD often exhibit manifestations such as emotional outbursts, low frustration tolerance, authoritarianism, stubbornness, excessive and frequent insistence on having their requests met, emotional lability, demoralization, dysphoria, frustration and peer rejection, and low self-esteem. Academic performance is often affected, leading to conflicts with family and teachers. In addition, they may present oppositional defiant disorder or dissocial disorder (Presentation et al, 2009). All this can affect their daily life and their relationship with others, as inattention, hyperactivity and impulsivity determine limitations in the context where they live and in the coping mechanisms they develop (Masó, 2016).

It is important to note that ADHD can be diagnosed in children as young as 4 years of age (Sanchez et al., 2022). While some children may outgrow the symptoms as they grow older, others do not and may continue to experience difficulties into adulthood. Therefore, early detection and appropriate treatment in the psychological support of children, adolescents and adults from all social, cultural and racial backgrounds is essential (Silva and Rodriguez, 2022).

In its most severe form, ADHD can be extremely disruptive and affect social, family and school adjustment, as its symptoms can affect multiple areas of an individual's life (Tuirán, 2021). In particular, inattention, hyperactivity and impulsivity can limit the

performance of children with ADHD in social, family, emotional and educational settings, which can affect their ability to establish healthy interpersonal relationships and develop coping mechanisms (Masó, 2016).

The impact of ADHD on the person can vary from one individual to another, depending on several factors, such as the severity of 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 in society in general, which can have long-term consequences in terms of his or her emotional well-being and future academic and job performance.

Early detection and appropriate treatment of attention deficit hyperactivity disorder (ADHD) are essential to improve the quality of life and social adjustment of affected children. If not detected early, ADHD can have serious consequences, such as low self-esteem, depression, anxiety, conduct disorders, oppositional defiant disorder and antisocial behaviors (García and Domínguez, 2014).

To make a diagnosis of ADHD, it is considered that symptoms must persist for at least 6 months, with a maladaptive and inconsistent intensity in relation to the individual's developmental level, and at least six of the following symptoms must be present: problems in attention management, difficulty maintaining attention, hyperactivity, impulsivity, and lack of coordination (Chaadd, 2018).

However, the major problem in the diagnosis of ADHD lies in the need to differentiate it from overactivity secondary to anxiety or depression (Amezquita et al., 2020). In these cases, hyperactivity is often accompanied by fears, worries, sleep disorders or nightmares (Alvarez et al., 2019). Therefore, it is important for mental health professionals to conduct a comprehensive evaluation to be able to differentiate between different disorders that may present with ADHD-like symptoms.

Adequate and timely treatment is important to lessen the outcome of this disorder, as parents of children with ADHD often feel overwhelmed, being exposed to constant censure. Although the style of upbringing and the education received are not the origin of the disorder, they do contribute to aggravate the symptoms.

Treatment of ADHD is usually multidisciplinary and includes pharmacological therapy, psychological therapy, and lifestyle and dietary changes (Rusca and Cortez, 2020). In addition, emotional education can also play an important role in the treatment of ADHD. Through emotional education, children can learn to recognize and regulate their emotions, which will allow them to improve their academic performance and social adaptation (Fernandes et al., 2017).

Treatment of ADHD may include both psychological therapy and medication. Psychological therapy can help children develop social and emotional skills, learn impulse control and improve their ability to concentrate. On the other hand, medication can help reduce ADHD symptoms and improve the academic and social performance of affected children (García and Domínguez, 2014).

It is important to note that the future of children with ADHD is not clearly determined, as some may outgrow their symptoms as they grow older, while others may continue to have problems into adulthood. Therefore, it is crucial that children with ADHD receive appropriate treatment as early as possible to minimize the negative impact of the disorder on their lives (Garcia & Dominguez, 2014).

Emotional intelligence

Emotional intelligence (EI) is a concept that has emerged from the need to understand why some people have a better adaptation to the various situations that arise in everyday life, and whether IQ (IQ) is the only factor that determines our destiny (Cabas et al., 2017). In this sense, it has been shown that emotions and feelings encompass

various cognitive abilities that are grouped under the term EI, which is composed of five main competencies: knowledge of one's own emotions, the ability to control them, the ability to motivate oneself, recognition of the emotions of others, and the ability to manage interpersonal relationships (Rey, 2012).

The concept of emotional intelligence has gained great importance in today's society, where the aim is to develop skills that allow people to face the challenges of everyday life efficiently. Emotional intelligence is considered an ability that allows us to adapt to the environment and relate appropriately with others, overcoming the limitations that IQ may present. In other words, emotional intelligence focuses on the knowledge, regulation and expression of emotions, being a key element in human development and in the formation of people's character. In addition, emotional intelligence is composed of different competencies that are interrelated and can be developed throughout life, allowing people to improve their skills and strengthen their ability to face life's challenges more efficiently.

In education, it is essential to offer children experiences that allow them to learn to better manage and control their emotions from an early age, as this fosters their emotional development, which is crucial for their optimal human growth (Alpízar, 2019; Dueñas, 2002). Parents, the environment and teachers play a key role in the formation of children's character and in the development of their emotional intelligence (Díaz, 2013).

Nowadays, emotional education is a key element in the educational process and in human development in general. The aim is for children to acquire the necessary skills to recognize, understand and manage their own emotions and those of others, which will enable them to function effectively in different social and emotional contexts throughout their lives (Fernández and Extremera, 2008).

The main objective of emotional education programs is to foster students' ability to understand and regulate their emotions, as well as to develop effective interpersonal skills. These programs are based on the idea that emotional intelligence is a crucial aspect of academic and personal success (Goleman, 2011). Emotional education involves teaching skills such as emotional self-awareness, emotional regulation, empathy and the ability to relate effectively with others (Boix, 2007).

In addition, emotional education also has a positive impact on the mental health of children and youth. By learning to recognize and manage their emotions, students can reduce anxiety, stress and depression, and improve their emotional well-being (Fernandez-Berrocal and Extremera, 2008). Therefore, it is important that emotional education programs are incorporated into the school curriculum in a formal and systematic way so that students can develop these skills from an early age and carry them with them throughout their lives.

It is important to note that emotional intelligence is not a new concept, as it has been a topic of great interest in the educational and professional world during the last decades. Howard Gardner's theories of multiple intelligences (Goleman et al., 2011) and Robert Sternberg's triarchic theory of intelligence are antecedents of emotional intelligence (Trujillo, 2005). Likewise, the maturation of the body, mind and emotions is a prerequisite for acquiring self-control and emotional regulation (Goleman, 2011).

From infancy, children are aware of their emotions and begin to recognize the emotions of others and their causes (Boix, 2007). Therefore, parents and teachers should play an active role in the development of children's emotional skills from an early age (Julca, 2021). The ability to control one's own actions is important for the child to be able to deliberately choose what is best for him or her and to develop emotional skills that allow him or her to establish strong emotional bonds (Fernandez and Garcia, 2016). In addition, the positive or negative reprimands that the child receives influence the

formation of his ideals and aspirations, which will later be his guide for life (Fernandez and Extremera, 2005). In short, the development of emotional intelligence from an early age is essential for the personal and social growth of children.

Emotional education is a crucial tool for improving coexistence in the classroom and the integral development of students. Children with ADHD have difficulty maintaining attention and impulse control, which can affect their academic performance and their relationships with other classmates. Therefore, emotional education is necessary to strengthen students' social skills and help them develop emotional self-control. In addition, emotional education can also be an effective tool to help children with ADD develop self-esteem and self-confidence, which can improve their academic performance and overall quality of life (Fernandes et al., 2017).

Method

Design

The present study is framed within the quasi-experimental paradigm, which allows for a deeper and more rigorous analysis of the variables involved. In addition, we have opted for a qualitative model with a descriptive and applicative approach, which seeks to identify and describe situations and predominant attitudes in a specific context. In this way, it is expected to obtain detailed and accurate information about the intervention process carried out on the child with attention deficit disorder.

The use of a descriptive approach makes it possible to identify the characteristics and particularities of the situation under analysis, as well as the processes and attitudes involved. In this way, a deeper understanding of the object of study is achieved, which in turn allows the generation of intervention proposals that are better adjusted to the specific needs of the child with ADHD.

The main objective of this study is to provide tools for the ADHD child to apply self-control through emotional intelligence. It is known that children with this disorder have difficulty regulating their emotions and behaviors, which can negatively affect their social-emotional development. Therefore, the implementation of early intervention strategies, based on emotional intelligence, can help improve their ability to recognize, understand and regulate their emotions.

This case study focused on a four-year-old boy, to be named Leo, diagnosed with Attention Deficit Hyperactivity Disorder. Choosing a specific case allows for a more detailed and rigorous analysis of the processes and intervention strategies used, which facilitates the identification of the strengths and weaknesses of the intervention proposal and allows for necessary adjustments to be made in the future.

Instrument and procedures

In the framework of this study, we chose to use the Conners Behavior Questionnaire (1994) as a reference to detect the aptitudes and attitudes of the child with ADHD. For this purpose, detailed observations and a semi-structured interview applied to the parents at the beginning of the therapy were carried out. These techniques made it possible to gather valuable information on behavior and emotions. From the results obtained, a personalized therapy plan could be designed to help Leo develop his emotional skills and improve his capacity for self-control.

To encourage parental collaboration, an informed consent form was signed and an agreement was established in which the parents agreed to support the child at home in the development of self-control and breathing skills, as well as in the elimination of

inappropriate habits. The presence of disorders such as hyperactivity, attention deficit, impulsivity, conduct disorders and learning difficulties can have a negative impact on the school performance of any child, so it is important to address them in a comprehensive manner.

To learn about parents' understanding of ADHD and facilitate the therapeutic process, an initial interview was administered consisting of five brief questions about (1) parents' general understanding of ADHD, (2) the main concerns or challenges they face with their child, (3) the strategies they have used so far to manage their child's behavior, (4) their knowledge about emotional intelligence and its relationship to ADHD, and (5) their willingness and ability to actively support therapy at home. This initial approach created an atmosphere of trust and established a positive relationship between the parents and the therapist, which facilitated the gathering of information and working together in the child's treatment.

Results

Case description

This study examined the case of a 4-year-old boy, who will be given the pseudonym Leo. Leo is the only child of young, professional parents, and according to his parents' assessment, his family environment is considered optimal. However, parents reported that he presents some characteristics that concern them, such as a language of his own that only they can understand and a lack of eye contact. In addition, the child shows an explosive and hyperactive behavior, without control of his actions, even throwing objects and being aggressive in taking what he wants.

Leo spends most of his time with his paternal grandmother because his parents work all day. At home, he generally obeys his father's orders, but only attends to calls when he wants to. His ability to concentrate is momentary and he is not distracted by the sounds of the street or the noises of the blender. Although he tolerates the presence of other people, he is not sociable, and does not know about turns when playing.

At school, Leo attends the second level of kindergarten in a private educational institution. Although he is very intelligent and knows the letters of the alphabet, he does not like to get dirty or wet, and has difficulty with activities such as tearing, cutting or painting. In addition, he shows little interest in class activities. The teacher indicated that her attention is scattered, she does not follow routines and manifests echolalia and anxiety.

Concerned about Leo's behavior, his parents took him to a psychologist who performed clinical tests and diagnosed him with ADHD. The specialist suggested taking him to a personalized center for comprehensive help, where he was given the Conners Behavioral Questionnaire (1994) to evaluate his behavior. The results of this evaluation will be presented below.

Intervention and data recording protocol

The designed intervention consisted of a series of personalized private sessions with a duration of three months, applied with a frequency of one hour per day, twice a week. During these sessions, specific objectives were set and appropriate materials were used to describe and carry out activities that would allow the acquisition and development of emotional intelligence. Habits were also encouraged to achieve self-control and autonomy in the preschooler's daily life.

Table 1 shows the results of the intervention, which consisted of ten basic sessions with specific numbered activities described in a template. In each session, the achievement of each activity was evaluated, starting with a specific objective, the material to be used, description and activities that were applied.

During all sessions, the traffic light technique was applied to observe the child's emotional state at the beginning of the session. With the help of a sign located at the entrance door, the child indicated how he/she was feeling at that moment, chose the respective card and handed it to the therapist. In this way, the child was calmed down before entering the session if he/she arrived with a negative or distracted attitude.

Different techniques were used to maintain the child's interest and predisposition during the sessions. For example, the relaxation and deep breathing technique was taught, with the objective that the child would get to know his diaphragm, learn breathing games and understand the importance of diaphragmatic or abdominal breathing as a control tool for his ADHD. Music therapy, dactylpainting, body expression exercises and breathing control exercises were also used (See Table 1).

Table 1
Intervention activities

Session	Activity
1	Breathing and relaxation games
2	Body expression and breath control exercises
3	Ant technique to be applied in everyday situations
4	Dance therapy with the Vladimir technique
5	Use of a stuffed animal as an affective stimulus
6	Technique of dactylpainting on the body scheme
7	Balloon technique for anxiety control
8	Working on anxiety with feeling cards, story and chameleon game
9	Guided breathing while drawing on paper
10	Relaxation exercises for different body parts

Table 2 presents the results of the Conners Behavioral Questionnaire applied to Leo that assesses different indicators. The data are divided into two time points: pretest (before the intervention) and posttest (after the intervention), and the items are evaluated on a rating scale from 1 to 3, where 1 indicates few or no symptoms, while 3 indicates severe or frequent symptoms. Items assessed include excessive motor restlessness, unpredictable outbursts of temper, distractibility and inattention, frequent annoyance to other children, angry or sullen appearance, sudden mood swings, restlessness and always on the move, impulsivity and irritability, difficulty completing tasks, and easy frustration with efforts.

In the pretest, the child obtained a total score of 25 points, indicating a significant presence of symptoms. However, after the intervention, at the posttest, the total score decreased to 12 points, suggesting a significant improvement in the child's behavior after the intervention. This may be an indicator that the intervention had a positive impact on the child's emotional intelligence development and overall behavioral improvement.

Table 2
Prestest-Posttest Results

Indicator or item	Prestest	Posttest
Excessive motor restlessness	A lot (3)	Quite a lot (2)
Unpredictable explosions of bad temper	A lot (3)	Quite a lot (2)
Distraction and lack of attention	A lot (3)	Little (1)
Frequent disturbance to other children	Quite a lot (2)	Little (1)
Angry or sullen appearance	Quite a lot (2)	Little (1)
Sudden changes in mood	A lot (3)	Little (1)
Restlessness and always on the move	Quite a lot (2)	Little (1)
Impulsivity and irritability	Quite a lot (2)	Little (1)
Difficulty in completing tasks	A lot (3)	Little (1)
Easy frustration of efforts	Quite a lot (2)	Little (1)
Total score (max. 30)	25	12

Among the indicators with the most significant gains were distractibility and inattention, which went from "a lot" (3) to "a little" (1), and excessive motor restlessness and unpredictable outbursts of temper, which went from "a lot" (3) to "quite a lot" (2). There was also a significant decrease in other symptoms such as frequent annoyance to other children, angry or sullen appearance, sudden mood swings, restlessness and always on the go, impulsivity and irritability, difficulty in completing tasks, and easy frustration with efforts, all moving from "quite a lot" (2) or "a lot" (3) to "little" (1). Overall, the intervention was able to significantly improve the child's symptoms in all indicators assessed.

To test the effectiveness of the intervention, a statistical analysis of each indicator was carried out using the Wilcoxon test. The results showed a significant improvement in the posttest compared to the pretest ($Z = -2.83$, $p = 0.005$), suggesting that the intervention had a positive impact on the child's symptoms. It is important to note that the Wilcoxon test is a statistical tool suitable for evaluating nonparametric data and is used to determine whether there are significant differences between the medians of two related groups. Summing the ranges of the positive and negative differences, it is concluded that the improvement observed in the posttest was significant compared to the pretest.

Discussion and conclusions

The results of this study demonstrate that personalized educational intervention had a significant effect on improving the behavioral and emotional symptoms of a child with ADHD. Specifically, a significant decrease was observed in excessive motor restlessness, outbursts of temper, distractibility and inattention, frequent annoyance to other children, angry or sullen appearance, sudden changes of moods, restlessness, impulsivity and irritability, difficulty in completing tasks and easy frustration of efforts, according to Conner's behavior scale (1994).

It is important to highlight the importance of early diagnosis and personalized educational intervention to improve behavioral and emotional symptoms in children with ADHD (Rusca et al., 2020). In addition, it is essential to tailor the intervention to the specific needs of each child and work in collaboration with health and education

professionals to provide them with the tools and support necessary to reach their full potential academically and socially (Julca, 2021).

The literature review and the results obtained in this study agree that emotional intelligence is a capacity that encompasses different cognitive and affective skills (Tuiran, 2021). To develop emotional intelligence in children, interventions should be adapted to their needs, improve their ability to control their anxiety, improve their mood and encourage habits through routines (Trujillo, 2005).

The personalized work of three months with a frequency of one hour daily on two days per week, in which objectives were applied, the handling of materials, the description and realization of activities through exercises and techniques at home and at school, achieved a significant improvement in the acquisition and development of emotional intelligence of a preschooler with ADHD (Amezquita et al., 2020).

The importance of emotional education to form more responsible people and develop emotional intelligence in a positive way is highlighted (Alpízar, 2019). The education of feelings is a guarantee to have a happy life and to resolve conflicts through empathy (Presentación et al., 2009). By teaching children to develop their emotional intelligence, future problems are avoided and their development is favored, as they have the sensitivity and control of their emotions (Fernandez, 2014).

In conclusion, it is essential to nurture the aspects that contribute most to the development of preschoolers' personalities through the family, educational-therapeutic and social environments in general, in order to continue developing emotional intelligence in a positive way. It is important to set limits and nurture all cues a child receives through positive effort. Emotional education is crucial to better adapt to the social world and make more informed and balanced decisions in our lives.

References

- Alpízar-Velázquez, A. (2019). Desregulación emocional en población con TDAH; una aproximación teórica. *Revista Costarricense de Psicología*, 38(1), 17-36. https://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S1659-29132019000100017
- Álvarez Cárdenas, F., Peñaherrera Vélez, M. J., Arévalo Proaño, C., Dávila, Y., & Vélez Calvo, X. (2019). Altas capacidades y TDAH: una doble excepcionalidad poco abordada. https://dehesa.unex.es:8443/bitstream/10662/14357/1/0214-9877_2019_1_5_417.pdf
- Amezquita, Y., Posada, R., & Sánchez, M. (2020). *Intervenciones terapéuticas en niños con TDAH*. Universidad Cooperativa de Colombia. http://repository.ucc.edu.co/bitstream/20.500.12494/28624/1/2020_intervenciones_terapeuticas_ni%C3%B1os.pdf
- Armstrong, T., Rivas, M. P., Gardner, H., & Brizuela, B. (1999). *Las inteligencias múltiples en el aula*. Manantial. https://www.planetadelibros.com/libros_contenido_extra/37/36195_INTELIGENCIAS_MULTIPLES_AULA.pdf
- Barkley, R. A., & Murphy, K. R. (2010). Impairment in occupational functioning and adult ADHD: the predictive utility of executive function (EF) ratings versus EF tests. *Archives of clinical neuropsychology*, 25(3), 157-173. <https://academic.oup.com/acn/article-abstract/25/3/157/3840>
- Boix, C (2007). La educación emocional: un reto y un aporte de soluciones. *El Portal de Inteligencia Emocional*.

- <http://www.inteligenciaemocionalportal.org/ARTICULOS/CARMEN%20BOIX.pdf>
- Cabas-Hoyos, K., González-Bracamonte, Y., & Hoyos-Regino, P. (2017). Teorías de la inteligencia y su aplicación en las organizaciones en el siglo XXI: una revisión. *Clío América*, 11(22).
<https://revistas.unimagdalena.edu.co/index.php/clioamerica/article/view/2445>
- Chaadd. (10 de 2018). *CHildre and Adults with Attention Deficit/Hyperactivity Disorder*. Prescolares con TDAH. <https://chadd.org/wp-content/uploads/2018/10/preschoolers-SPANISH.pdf>
- Conners, K. (1994). Escalas de CONNERS para evaluar el TDAH. <http://www.ceril.cl/index.php/profesionales-2/12-publicaciones/articulos/241-enque-consisten-las-escalas-de-conners-para-evaluar-el-tdah>
- da Silva, M., & Rodrigues, F. D. A. A. (2022). La alfabetización desde la perspectiva de la neurociencia. *Ciencia Latina Revista Científica Multidisciplinar*, 6(1), 4603-4627. <https://www.ciencialatina.org/index.php/cienciala/article/view/1822>
- de Vinuesa Fernández, F. G. (2017). Prehistoria del TDAH: Aditivos para un diagnóstico insostenible. *Papeles del psicólogo*, 38(2), 107-115. <https://www.redalyc.org/journal/778/77851775005/77851775005.pdf>
- Díaz, J. J. M. (2013). Reseña teórica de la inteligencia emocional: modelos e instrumentos de medición. *Revista científica*, 17(1), 10-32. <https://revistas.udistrital.edu.co/index.php/revcie/article/view/4505>
- Dueñas, M. L. (2002). Importancia de la inteligencia emocional: un nuevo reto para la orientación educativa. <http://e-spacio.uned.es/fez/eserv/bibliuned:EducacionXXI-2BB75B2C-720F-A542-4DCE-43297DDB55B7/Documento.pdf>
- Fernandes, S. M., Blanco, A. P., & Vázquez-Justo, E. (2017). Concepto, evolución y etiología del TDAH. En E. Vázquez-Justo, & A. Blanco, *TDAH y Trastornos Asociados* (pp. 21-19). Lex Localis Press. <https://doi.org/doi.org/10.4335/978-961-6842-80-8.2>
- Fernández, A. García, I. (2014) Aportes para la educación de la Inteligencia Emocional desde la Educación Infantil. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 14(1), 53-66. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1692-715X2016000100003
- Fernández, P., & Extremera, N. (2005). La Inteligencia Emocional y la educación de las emociones desde el Modelo de Mayer y Salovey. *Revista Interuniversitaria de Formación del profesorado*, 19(3), 63-93. <https://www.redalyc.org/pdf/274/27411927005.pdf>
- García, F. (2017). Prehistoria del TDAH: aditivos para un diagnóstico insostenible. *Papeles del Psicólogo*, 32(2), 107-115. <https://doi.org/https://doi.org/10.23923/pap.psicol2017.2829>
- García Peñas, J. J., & Domínguez Carral, J. (2014). ¿Existe un sobrediagnóstico del trastorno de déficit de atención e hiperactividad (TDAH)? <http://riberdis.cedid.es/bitstream/handle/11181/4291/Existeunsobrediagnosti-codeltrastornodedeficitdeatencionehiperactividad.pdf?sequence=1>
- Goleman, D. (2011) *Inteligencia Emocional*. Editorial Kairós. https://books.google.com.ec/books?id=FO2bDwAAQBAJ&lr=&hl=es&source=gbs_navlinks_s
- Julca, M. L. P. (2021). La educación emocional en niños del nivel preescolar: una revisión sistemática. *TecnoHumanismo*, 1(11), 1-21. <https://dialnet.unirioja.es/servlet/articulo?codigo=8179036>

- Presentación, M., Pinto, V., Meliá, A., & Miranda, A. (2009). Efectos sobre el contexto familiar de una intervención psicosocial compleja en niños con TDAH. *Escritos de Psicología (Internet)*, 2(3), 18-26. https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1989-38092009000200003
- Rey, C. (2012). Pedro Melenas, el terror de las neuronas. *Revista de la Asociación Española de Neuropsiquiatría*, 32(116), 877-887. https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0211-57352012000400014
- Rusca, F., & Cortez, C. (2020). Trastorno por déficit de atención con hiperactividad (TDAH) en niños y adolescentes. Una revisión clínica. *Revista de Neuro-Psiquiatría*, 83(3), 148-156. http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S0034-85972020000300148
- Sánchez, M, Caballero, F., Sánchez, C., & Onandia, I. (2022). Trastorno por déficit de atención e hiperactividad y su relación diagnóstica con el Trastorno por estrés postraumático infantil: Una revisión sistemática. *Revista de Psicología Clínica con Niños y Adolescentes*, 9(1), 9-19. <https://dugi-doc.udg.edu/handle/10256/21741>
- Thapar, Anit; Cooper, Miriam; Jefferies, Rachel; Stergiakouli, Evangelia (2012). What causes attention deficit hyperactivity disorder? *Archives of disease in childhood*, 97(3), 260-265. <https://adc.bmj.com/content/97/3/260.short>
- Trujillo, M. (2005). Orígenes, evolución y modelos de inteligencia emocional. *INNOVAR, Revista Deficiencias Administrativas y Sociales*. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0121-50512005000100001
- Tuiran, L. P. V. (2021). *Etiopatogenia, métodos diagnósticos e intervención en tdah: una revisión narrativa* [Tesis Doctoral, Universidad Cooperativa de Colombia]. http://repository.ucc.edu.co/bitstream/20.500.12494/34891/5/2021_etiopatogenia_evaluacion.pdf