

Mindfulness in the Emotional Autonomy of Early Childhood. Approaches in Colombia and Ecuador

Mindfulness en la Autonomía Emocional de la Primera Infancia. Aproximaciones en Colombia y Ecuador

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SUMMARY

Introduction: It is imperative to address and intervene from an early age to mitigate the exacerbation of emotions, thereby averting potential social, familial, and academic complications. **Materials and methods:** This qualitative research aims to implement mindfulness as a pedagogical strategy to educate emotional autonomy in early childhood, through the socio-critical paradigm, based on the research "Action in the Classroom." The present study was conducted with a purposive sample of 24 students from the Educational Institution of Cotopaxi (Ecuador) and 60 students from two educational institutions in Popayán, Colombia. **Results:** The study describes the analysis of field diaries, which were determined based

on the lesson plans and later analyzed in the Atlas.ti software (version 9), enabled the children to identify their emotions and what they feel when witnessing daily life situations. **Conclusion:** The study highlights how mindfulness-based pedagogical strategies improved their ability to manage emotions, self-esteem, and confidence. Additionally, it is essential to understand the context for developing these strategies and the need to create educational policies that integrate mindfulness into teacher training in future research.

Keywords: Education, early childhood, emotional development, affective development.

RESUMEN

Introducción: Es importante abordar e intervenir desde temprana edad, la exacerbación de emociones, para así evitar problemas sociales, familiares y académicos. **Material y métodos:** Esta investigación, de naturaleza cualitativa, tiene como objetivo

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*implementar el Mindfulness como estrategia pedagógica para educar la autonomía emocional en la primera infancia, mediante el paradigma sociocrítico, a partir de la investigación “acción en el aula”. Se trabajó con una muestra intencionada de 24 estudiantes de la Institución Educativa de Cotopaxi (Ecuador) y 60 estudiantes de dos Instituciones Educativas de Popayán (Colombia). **Resultados:** Describen el análisis de los diarios de campo que se determinaron con base en los planes de las clases, posterior, se analizaron en el software Atlas.ti (versión 9), permitiendo a los niños identificar sus emociones y lo que sienten al presenciar situaciones cotidianas de la vida. **Conclusión:** El estudio destaca como las estrategias pedagógicas basadas en mindfulness mejoraron su capacidad para gestionar emociones, autoestima y confianza; además, es importante conocer el contexto para el desarrollo de la estrategia y la necesidad de crear políticas educativas que integren mindfulness en la formación docente en futuras investigaciones.*

Palabras clave: Educación, primera infancia, desarrollo emocional, desarrollo afectivo.

INTRODUCTION

Mindfulness is a term increasingly used in educational research, policy, and practice. However, its use varies considerably, presenting several complex issues in contemporary educational uses for researchers (1,2). In the educational setting, Mindfulness refers to the practice of cultivating awareness and presence in the present moment to enhance students' well-being, mental health, and academic performance. This practice, based on meditation and reflection, has been shown to have a positive impact on reducing stress, improving resilience, and promoting social and emotional skills (3,4).

This text presents the experience of educating in mindfulness for emotional autonomy, offering novel solutions that combine technological and face-to-face knowledge to transform practices and enhance the quality of life for children in first grade in international, national, and regional contexts. Early education plays a crucial role in developing social skills, as it promotes the identification and intervention in attitudes such as emotional ignorance, low self-esteem, and socio-affective problems, among others, which can be generated from family or school situations (5).

This article is part of a microproject coordinated by the DHASA (Development of Socioemotional Skills) seedbed at the Uniautónoma del Cauca (Colombia), which has been underway for over four years in several phases. This phase of emotional autonomy aims to intervene in the social appropriation of knowledge, research, and technology, thereby fostering the formation of emotional education in early childhood. It is approached through interdisciplinary and collaborative work with different Higher Education Institutions (HEI) in Colombia and Ecuador. Consequently, the development of products such as applications has occurred. For instance, an M-Learning application for early childhood education in emotional intelligence has been developed (6). The interdisciplinary team (composed of a PhD in Education, two visual designers, a software engineer, two graduates and five graduates in training), carries out the design and validation process of 11 pedagogical strategies related to Mindfulness in emotional autonomy, such as: breathing yoga, body yoga, children for peace, the train of thoughts, the clouds of thoughts, emotional dictionary, the emotional traffic light, I paint my best moments, learning to achieve my goals, the boom of qualities and defects, and the circle of self-esteem.

The research question to be answered is as follows: How can the Mindfulness technique be implemented as a pedagogical strategy for teaching emotional autonomy in early childhood?

BACKGROUND

Several studies have evidenced the positive relationship between the application of Mindfulness and academic achievement (7). Mindfulness in education initiatives and pedagogies is also discussed in different parts of the world (8). Mindfulness programs, such as MindKinder, can effectively promote psychosocial adjustment and enhance neuropsychological development in kindergarten children, as demonstrated by the results of various Mindfulness-based social-emotional learning programs and neuropsychological maturity assessments in kindergarten children (9).

Mindfulness training has been shown to significantly reduce stress and anxiety while also improving self-compassion and personal growth in parents and educators of children with special needs (10).

While studies are found that show evidence that mindfulness practice promotes the improvement of socioemotional competencies, positively influencing in relation to emotional regulation, empathy and social connection, and resilience with differential effects; however, they recognize the need for further exploration on the subject (11), which makes it possible to delve into other methods that allow understanding its different scopes (12), as shown in recent studies published in specialized journals on the subject (13-17), both from an academic perspective and its relationships in the psychological field connecting problems such as depression and anxiety (18).

Mindfulness (MF) or mindfulness-based practices (MBP) often also refer to specific techniques used to focus a person's attention through meditation, yoga, breathing exercises, and concentration, among others. It is characterized by intentionality and observation; however, this technique does not transform the emotions of rage, fear, or anger, but it is considered a tool that fosters a better relationship with others and enables the management of life and emotions (19). Therefore, Mindfulness can be effectively utilized within a gamification context; in fact, innovative strategies may enhance motor learning and social and affective skills compared to more traditional methods (20).

This research is developed in the early school stages, specifically in early education, as this is the fundamental basis for child development. Addressing mindfulness at that age is necessary, as it is a technique that enhances learning by decreasing avoidance and attachment to thoughts. Consequently, this strategy is related to other factors that improve the quality of life for the person (21). Additionally, mindfulness encompasses relaxation techniques and various forms of meditation (22). In this sense, the concept is expanded, being referred to as REMIND (Relaxation, Meditation, Mindfulness), encompassing a wide variety of exercises, including progressive muscle relaxation, yoga stretching, breathing techniques, imagery or

visualization, autogenic training, and various meditation and mindfulness practices. Therefore, teachers need to recognize the importance of mastering these techniques in developing emotional skills, as they contribute to the remarkable self and collective well-being of students (23).

In Colombia and Ecuador, several studies have employed mindfulness-based strategies that contribute to emotional development in early childhood, reflecting the region's interest in the subject from diverse perspectives and areas of knowledge (24-26).

MATERIALS AND METHODS

The methodology employed in this study is qualitative, centered on the socio-critical paradigm, which allows for an empirical and interpretive approach to the social sciences. This approach fosters a global and dialectical vision of educational reality, promoting transformations that integrate interaction with the community reality, particularly in vulnerable spaces (27). It was implemented in several public educational institutions that are characterized by serving children in vulnerable situations, including those displaced by violence and dysfunctional families.

The research was carried out with a purposive sample composed of 84 students in first grade of primary school, aged between six and seven years, from three educational institutions, two located in Colombia, each with a total of 30 students (GM-BV: Gabriela Mistral, Bella Vista branch; GM-PA: Gabriela Mistral, PISOJÉ Alto branch) and one institution in Ecuador with 24 students (Unidad Educativa Quito-Ecuador). Both urban and rural areas were included to provide a broader view of emotional autonomy. No exclusion criteria were applied, ensuring a more comprehensive representation of the conditions for the research.

Data Collection and Analysis Process

The methodological design was based on "classroom action research" (CAR), as articulated by Martínez (28) in four phases: analysis of the problem, design and execution of

the action plan, collection and categorization of the information, and evaluation of the executed action. During these phases, data were collected through direct observations and field diaries, which were analyzed using Atlas.ti software to identify patterns and themes (Figure 1). Phase I: Analysis of the problem, allowing for approach and insertion into the problem; Phase II: Design and execution of the action plan, which identifies the problem to work on and

the reality the teacher will face, and provides a solution; Phase III. The activities of this phase are related to systematic analysis, and Phase IV, "Evaluation of the executed action," is the most active part of the IA in the classroom. This method of intervention enabled students to acquire knowledge through pedagogical strategies, utilizing didactic educational resources to foster emotional autonomy awareness in early childhood.

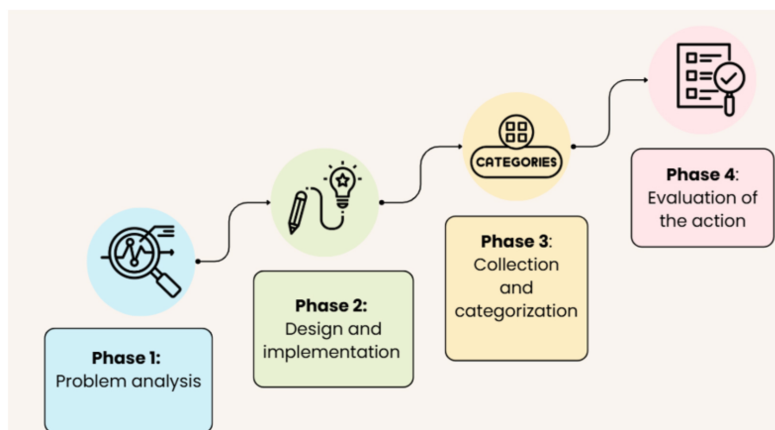


Figure 1. Phases of Participatory Action Research. Source. Own creation based on Martínez (28).

Validation of Instruments

The instruments used, and the MSCEIT Mesquite Emotional Intelligence Test, were validated by experts in educational psychology and child development. This ensures the reliability and relevance of the data collected, allowing an adequate interpretation of the observed child interactions and emotions (29).

In addition, the intervention strategies were initially validated by three early childhood teachers, who evaluated the lesson plan, made adjustments, and piloted it with a group of 10 children with characteristics similar to those of the target population. The action plan was then implemented with the study population, comprising first-grade children from various educational institutions in Colombia and Ecuador, with the goal of enhancing emotional

autonomy through training in self-esteem, self-motivation, positive attitude, self-knowledge, self-confidence, responsibility, and emotional self-efficacy, among other aspects. Fostering a child's positive attitudes enables self-acceptance, effective communication with oneself and others, recognition of their emotions and feelings, self-awareness of their strengths and weaknesses, acceptance of criticism from others, and conscious thinking (6).

Ethical considerations

The study complied with the provisions of Law 1581 of 2012 and Decree 1377 of 2013 in collecting, storing, using, analyzing, and processing the personal data provided in

accordance with the Personal Data Processing Policy. It had the endorsement of educational institutions for its development, ensuring that all ethical aspects, including participation, voluntariness, anonymity, and confidentiality, were upheld.

RESULTS

Results of Phase I: “Analysis of the problem” revealed a diagnosis that enabled an approach to understanding the needs of children from different educational institutions related to mindfulness and emotional autonomy. For this purpose, the

MSCEIT “Mesquite” test (29) was administered, which is a test designed to assess emotional intelligence levels in both adults and children.

When comparing the countries of Colombia and Ecuador at the international level, it was found that, before this application, few students exhibited moderate emotional intelligence, with percentages ranging from 7 to 15 (GM-BV: 17 %, GM-PA: 13 %, UQ: 29 %). Most of them (GM-BV, 83 %; GM-PGA, 87 %; UQ, 66 %) exhibit high emotional intelligence, scoring 15 to 25. In addition, only 4 % of students in Ecuador have a very high emotional intelligence (EI) level (26 to 32); however, in Colombia, there were no students at this level, indicating a need to intervene with strategies to improve these results (Figure 2).

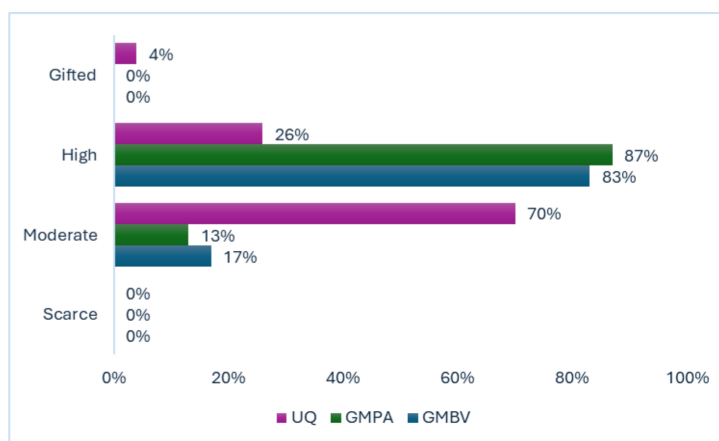


Figure 2. Comparison of the First Application of the MSCEIT Test (Colombia-Ecuador)
 Source. Own creation based on the application of Msceit in GM-BV: Gabriela Mistral, Bella Vista site; GM-PA: Gabriela Mistral, Pisojé Alto site UQ: Quito Educational Unit.

Results of Phase II: “design and execution”, the 11 strategies described in the guide book “Educar la Autonomía Emocional desde M-Learning: Orientaciones para maestros de la primera infancia” (in the process of publication and prepared by the DHASA seedbed team), framed in respiratory yoga, body yoga, children for peace, the train of thoughts, the clouds of thoughts, emotional dictionary, the emotional traffic light, painting my best moments, learning to achieve my goals, the boom of qualities and defects, and the circle of self-esteem.

In this phase, students identified emotions, feelings, strengths, and weaknesses that arise in their daily lives and learned how to manage themselves effectively. All activities are based on a playful-pedagogical methodology, where children interact spontaneously, allowing for the generation of situations relevant to the research, which were recorded in the field diaries.

Results of Phase III: “Observe and Reflect”. Once the strategies were applied and recorded in the three educational institutions, we proceeded

with observing the fieldwork and analyzing the information using the qualitative analysis software ATLAS.ti 9. During the observation, 22 field diaries were prepared, which were analyzed using an inductive approach based on the six steps proposed by Braun and Clarke (30): familiarization, initial coding, searching for themes, reviewing themes, defining themes, and writing the final report. The three themes that emerged from the analysis were the children’s knowledge, feelings, and actions from Mindfulness (Table 1).

The first category of knowledge encompasses the following themes: (i) the definition of positive

thoughts, (ii) the definition of yoga, and (iii) the definition of positive and negative thoughts. It is evident that these elements contribute significantly to the understanding of the subject matter. The second category, children’s feelings from mindfulness, encompasses themes such as the importance of yoga, the value of body-based yoga, experiences related to their environment, and the impact of playful pedagogical strategies. The third category of children’s actions in mindfulness encompasses themes such as the difficulty in carrying out playful-pedagogical activities, examples of pleasant and unpleasant situations, and the practice and acquisition of knowledge in new languages.

Table 1. Description of codes and primary documents.

Themes	Code	FD1	FD2	TOTALS
Mindfulness and Emotional Autonomy in Early Childhood.		0	0	0
1.	Mindfulness awareness in children	0	0	0
1.1	Definition of positive thinking	10	4	14
1.2	Identification of positive or negative thinking	11	9	20
1.3	Definition of yoga	6	7	13
2.	Children's Feelings from Mindfulness	0	0	0
2.1	Importance of breathing yoga in the classroom	10	12	22
2.2	Importance of body yoga	15	6	21
2.2	Experiences related to their environment	26	18	44
2.4	Impact of the ludic-pedagogical strategies	15	14	29
3.	Children's Actions in Mindfulness	0	0	0
3.1	Difficulty in carrying out the play-pedagogical activities	9	8	17
3.2	Examples of pleasant and unpleasant situations	18	11	29
3.3	Practice and knowledge in new languages Field diary	7	5	12
TOTALS		134	96	230

Source: FD1: Filed Diary, FD2: Field Diary 2. Own elaboration based on the ATLAS results. ti 9 software.

It is worth mentioning that to identify the significant themes of the study, the tactic of significance generation was used in the Atlas.Ti software, considering the criteria of frequency, density, and significance, which are described in Table 2. It is necessary to clarify that only the categories that meet at least one criterion are considered, as the non-relevant codes were eliminated from the final report. The data recorded describes experiences and narratives.

Phase IV corresponds to the evaluation of the executed action, where the results obtained are described, which enables the implementation of pedagogical strategies based on the Mindfulness technique in emotional autonomy. This evaluation is then repeated. Figure 3 shows the results of the application after the action plan, showing that there was an improvement in the results after implementation, since there was an increase in the levels of gifted emotional intelligence “26

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Table 2. Meaning generation tactics.

Theme	Codes	Frecuency ≥ 14	Density ≥ 2	Significance
Mindfulness en la autonomía emocional en la primera infancia		no	yes	yes
1. Mindfulness awareness in children		no	yes	yes
1.1 Definition of positive thinking		yes	yes	yes
1.2 Identification of positive or negative thinking		yes	no	yes
1.3 Definition of yoga		no	yes	yes
2. Children's feelings from Mindfulness		no	yes	yes
2.1 Importance of breathing yoga in the classroom		yes	yes	yes
2.2 Importance of body yoga		yes	no	yes
2.2 Experiences related to their environment		yes	yes	yes
2.4 Impact of playful-pedagogical strategies		yes	yes	yes
3. Children's actions in Mindfulness		no	yes	yes
3.1 Difficulty in carrying out the play-pedagogical activities		yes	no	yes
3.2 Examples of pleasant and unpleasant situations		yes	yes	yes
3.3 Practice and knowledge of new languages		no	yes	yes

Source. Own creation based on the results of the ATLAS software. Ti.

to 32”, going from 0 % to 67 % in GM-BV, to 57 % in GM-PA and 70 % in UQ, lowering the averages of high emotional intelligence “15 to 25”, in GM-BV 29 %, GM-PA 43 %, UQ 17 %. Fewer students achieved moderate emotional intelligence, scoring between 7 and 15, with low averages of 13 % and 4 %, respectively.

The evidence suggests that, with the implementation of the action plan of the

strategies, the students achieved an improvement in identifying and controlling their emotions, being able to understand what is happening around them, and knowing how to cope with the situations presented. Nevertheless, some children continue to be in the high intelligence range (15 to 25), and very few present with low emotional intelligence (0 to 6).

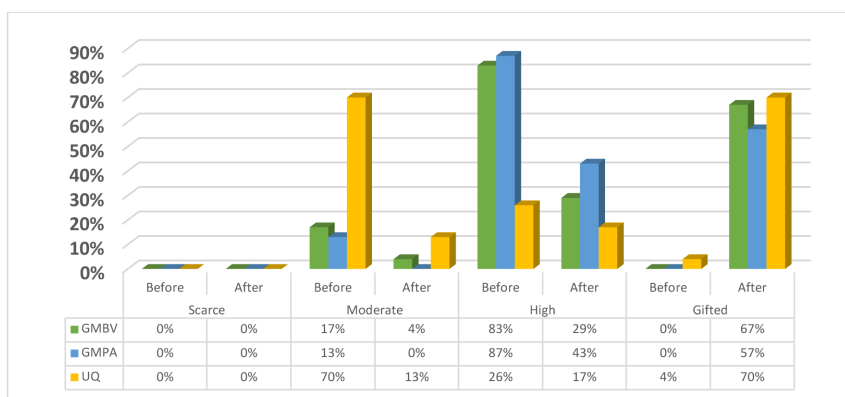


Figure 3. Comparison of the second application of the Msceit test (Colombia - Ecuador).

Source: Prepared by the authors based on the application of Mesquite in GM-BV: Gabriela Mistral, Bella Vista branch; GM-PA: Gabriela Mistral, Pisojé Alto branch; UQ: Quito Educational Unit.

On the other hand, to promote mindfulness in the emotional autonomy of early childhood, it is essential to begin with diagnosis, where the various educational contexts and problems related to a lack of emotional knowledge were identified. Subsequently, to implement ludic-pedagogical strategies that allow them to externalize their own experiences of their environment and learn how to solve problems in their daily life.

Analysis of the results of the implementation of the action plan

To carry out the process of implementation of the action plan, six steps of inductive approach were considered, taking the knowledge, feelings, and actions of the children in mindfulness. The interpretation of the data is performed with the help of Atlas.TI software, emerging as a main category 'Mindfulness in Emotional Autonomy in Early Childhood', with three selective categories that are described and further developed below in Figure 4.

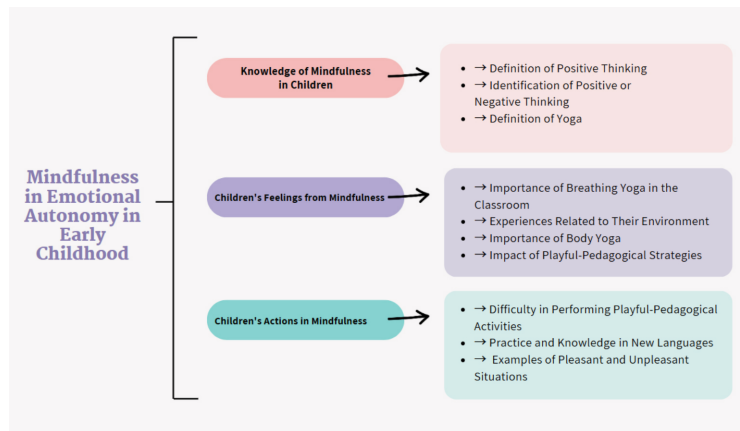


Figure 4. Mindfulness conceptual scheme of the main category and emerging categories. Source: Own elaboration, based on the data extracted from the results, with the help of ATLAS software. ti 9.

DISCUSSION

Knowledge of Mindfulness in Children

The knowledge of breathing and body yoga techniques was implemented to achieve calmness and relaxation during activities, indicating to the children that body yoga is a practice where movements are carried out with the body to promote well-being. This allows teaching through practice the control of the body. However, the definition of positive thinking is part of it since they are all the memories, images, sounds, and sensations that make us feel calm and happy.

Therefore, the identification of positive and negative thoughts is a technique for students to

learn to recognize their ways of interpreting, for example: “my cousin hits me” (ICCP4); “it is bad because my dad hits me” (MELM9), also “Cristian hits me, that is why I do not like him to take me” (NMCT1). It can be said that in the three educational institutions, these statements were repeated, and as can be seen, all of them generate mistreatment, something that will undoubtedly mark them emotionally in the future.

Finally, it was explained to them what each thought was for, whether positive or negative, and they interpreted, understood, and grasped the explanation of the concept, affirming that they had enjoyed this activity very much. However, at the end of the activities, many good and bad situations of the students came to light, which

they expressed, externalized moments lived and differentiated between positive and negative thoughts.

The definition of yoga as part of the knowledge of Mindfulness in children enables the development of full awareness of the activities they perform, including all actions and positive thoughts, which in turn helps children identify both positive and negative thoughts.

Children's Feelings from Mindfulness

In the second category, the children's feelings are considered, as implementing pedagogical strategies emphasizes the practice of breathing yoga, which aids the children in their concentration. Considering that this technique was implemented before each activity as they acquired their learning, they pointed out the figure they wanted to apply. While the activity was being carried out, the children began to show their experiences:

Now I started to pass the papers and on the board I pasted a big cloud of cardboard, I told them "remember very well the kinds of thoughts and from there we are going to start drawing", the concentration of the children was so great that at one point DC5-IEGMV-8 began to cry. I asked him why he was like that; he answered, "It is that my doll was painted ugly and I did not like it" (DC5-IEGMV-8, 7 years old, 2:38). Found in the analysis of the Atlas.ti software. The strategies employed enable children to recognize the emotions they may experience, and one of the objectives is for them to learn to manage them effectively. However, it is necessary to accept them and share them.

Children's Actions in Mindfulness

The third category focuses on the children's actions in mindfulness, which encompasses the execution of the yoga activities and the way they are performed, allowing them to express emotions and situations that arise in daily life spontaneously.

I ask them "what was the unpleasant situation you have experienced the most?", MELM 9 answers that "when my parents fight, I feel sad

and I get scared, I don't like it", her face shows sadness, "What did you do at that moment?", I ask her, to which she answers "I hide in my room" (MELM 9, 1:68). Found in the Atlas software analysis. Ti 9

According to Domínguez Alonso et al. (31), human beings do not experience positive or negative emotions in their social relationships, which are learned from a very early age through interaction with peers; rather, emotions are a result of the person's response to any situation that arises. This allows them to differentiate between each one, learning to recognize and respect their own and others' emotions in the social relationships that are established day by day.

In the experiential part, one can feel the development of emotional autonomy, as well as the difficulties that arise during the execution of the activities. Each strategy enables students to develop their emotional side, thereby facilitating the acquisition of new knowledge and alternative coping mechanisms for dealing with everyday life situations.

The research findings reveal that emotional autonomy has a significant influence on teaching and learning processes, enhancing the assertive management of emotions within familial and educational contexts. This facilitates the understanding and management of one's life project (32,33). Educating emotions from early childhood expands students' knowledge on how to confront situations or adversities in various contexts, allowing them to express their capabilities to tackle problems (34), particularly when linked with stages of inquiry (33).

The National University of Distance Education in Madrid underscores the importance of emotional competencies in addressing challenges, obstacles, and issues, enabling effective responses to life's difficulties (35). To this end, the pentagonal model describes five core competencies: emotional awareness, emotional regulation, emotional autonomy, social competence, and competence for life and well-being. These technical and professional competencies revolve around the "knowing" and "know-how" required for expert performance in a vocational activity (36).

The vision shared by these frameworks is to establish the necessary foundations for

implementing emotional autonomy, considering the socialization of emotional competencies across different contexts. Therefore, emotional education is crucial in the learning process, particularly emphasizing early childhood education. From this stage, socialization processes begin, helping children make informed decisions about the knowledge and practice of emotional education (34).

CONCLUSIONS

To assess emotional autonomy in early childhood, it is crucial to consider the context in which children are situated, whether educational, familial, or social, as their behaviors are reflected in their actions. This research article facilitated the observation of their experiences. The results of this assessment indicate a lack of understanding in addressing situations or problems that arise in the classroom or in students' daily lives. As a result, attitudes that affect their academic performance were identified. However, as pedagogical strategies based on emotional autonomy were developed, the children learned to feel secure and manage their emotions effectively.

At the beginning of the results, it was evident that the largest percentage belonged to moderate emotional intelligence, indicating that students were unclear about how to solve daily problems or what these entailed. In contrast, those with gifted emotional intelligence did not initially score higher. However, following the implementation, there was a significant increase in the gifted emotional intelligence category, indicating improvement in the expression and management of emotions in everyday situations.

Finally, an educational impact was observed in the emotional development of early childhood through a comparison between Colombia and Ecuador, noting the significant relevance and often minimal focus on this issue. The strategies that had the most impact included respiratory and physical yoga, train of thought, clouds of thought, learning to achieve my goals, children for peace, and identifying qualities and flaws. Thus, upon concluding the implementation of all pedagogical strategies, it is evident that the students have improved their behaviors and

learned to recognize the concept of self-esteem, as they demonstrate confidence when expressing their ideas.

This study presents significant practical implications for educators and policymakers interested in the emotional development of children in early childhood. Despite the limitation of a small sample size, the findings provide a valuable starting point for implementing and evaluating mindfulness-based programs within educational settings. Educators can employ the described mindfulness strategies to foster better emotional management and increased emotional autonomy among young students. These practices can be integrated into the daily curriculum to help children recognize and regulate their emotions from an early age, which is crucial for their social and academic development.

For decision-makers in institutions or government entities, these results underscore the need for educational policies that incorporate mindfulness training as a vital component in teacher education. By promoting policies that support the integration of these practices in schools, a more mindful and emotionally healthy learning environment could be facilitated. Furthermore, the findings of this study can be used to advocate for the inclusion of emotional education in national educational standards, ensuring that every child develops essential life skills from an early age.

Finally, although the initial research was conducted with a limited sample, its implications and practical applications provide a robust framework for future research and developments in the field of emotional education and mindfulness, promoting a positive and lasting impact on early childhood education globally.

Among the limitations of the study and future lines of research is that although the results generate important findings, the non-randomized sample of the study suggests that the results may not be generalizable, as the sample may not fully reflect the diversity of educational contexts in Colombia and Ecuador. Another important limitation is the reliance on self-reported data and behavioral observations, which may be subject to social bias or subjective interpretation by the researchers. Although the instruments used were validated qualitatively, the measurement of

complex constructs such as emotional autonomy and mindfulness requires complementation with other robust and varied approaches to fully capture their impact

Given the exploratory nature of this study, several future research directions are identified that could expand and deepen the current findings. One direction would be to conduct longitudinal studies that follow participants over time to assess the long-term effects of mindfulness interventions on emotional autonomy during early childhood. This could provide insights into the sustainability of the observed benefits and their evolution as children progress through new educational stages.

Additionally, it is proposed to expand the sample to other regions and countries to compare cultural effects on the implementation and efficacy of mindfulness strategies. Studies with a complementary quantitative design could employ internationally standardized measurement instruments to provide more rigorous and generalizable comparisons. Finally, it would be relevant to explore in detail how different modalities of mindfulness training, such as technology-based interventions, more intensive in-person programs, or training for parents and educators, affect various dimensions of emotional and social development in children. This could include the use of mixed methods that combine qualitative and quantitative approaches to provide a richer and more nuanced understanding of how mindfulness can be effectively integrated into educational practices.

REFERENCES

1. McCaw C. Mindfulness ‘thick’ and ‘thin’ — a critical review of the uses of mindfulness in education. *Oxf Rev Educ.* 2019;46(2):257-278.
2. Gilbert F. Teaching Mindfulness in an Unmindful System. *Br J Educ Stud.* 2023;72(3):359-378.
3. Alomari H. Mindfulness and its relationship to academic achievement among university students. *Front Edu.* 2023;8:1179584.
4. Sun Y, Lamoreau R, O’Connell S, Horlick R, Bazzano A. Yoga and Mindfulness Interventions for Preschool-Aged Children in Educational Settings: A Systematic Review. *Int J Environ Res Public Health.* 2021;18:6091.
5. López Cassá E. La educación emocional en la educación infantil. *Rev Interuniv Form Profr.* 2005;19(3):153-167.
6. Torres-Rojas IS, Garcés-Bolaños YS, León Blanco DA. Development of an-M-Learning application for early childhood education in emotional consciousness. *Gac Méd Caracas.* 2022;130(Supl. 3):779-190.
7. Sheinman N, Russo-Netzer P. Mindfulness in Education: Insights Towards an Integrative Paradigm. In: Kern ML, Wehmeyer ML, editors. *The Palgrave Handbook of Positive Education.* Cham: Springer International Publishing; 2021.p.609-642.
8. Roeser RW, Galla BM, Baelen RN. Mindfulness in schools: Evidence on the impacts of school-based mindfulness programs on student outcomes in P–12 educational settings. *The Pennsylvania State University;* 2022.
9. Moreno-Gómez A, Cejudo J. Effectiveness of a mindfulness-based social–emotional learning program on psychosocial adjustment and neuropsychological maturity in kindergarten children. *Mindfulness.* 2018;10:111-121.
10. Benn R, Akiva T, Arel S, Roeser RW. Mindfulness training effects for parents and educators of children with special needs. *Dev Psychol.* 2012;48(5):1476-1487.
11. Gómez-Olmedo A, Valor C, Carrero I. Mindfulness en la educación para el desarrollo sostenible para fomentar las competencias socioemocionales: una revisión sistemática y un metanálisis. *Environ Edu Res.* 2020;26:152715-55.
12. Harnett PH, Dawe S. The contribution of mindfulness-based therapies for children and families and proposed conceptual integration. *Child Adolesc Ment Health.* 2012;17(4):195-208.
13. Ridderinkhof A, de Bruin EI, Blom R, Bögels SM. Mindfulness-based program for children with autism spectrum disorder and their parents: Direct and long-term improvements. *Mindfulness.* 2018;9:773-791.
14. Karl JA, Stanley SK. Is Mindfulness a Double-Edged Sword? Associations with climate anxiety and pro-environmental behavior. *Mindfulness.* 2024;15:2207-2217.
15. Morin L, Laurin JC, Doucerain M, Grégoire S. A. Multilevel diary and dyadic study exploring the link between new parents’ mindfulness and relationship satisfaction. *Mindfulness.* 2024;15:2330-2346.
16. Fuochi G, Boin J, Lucarini A, Voci A. A mindful path toward reducing prejudice: Key mindfulness facets and mediators for promoting positive intergroup relations. *Mindfulness.* 2023;14(12):2894-2905.
17. Wunder ZI, Jones LL. Mindful metacognition: attention, beliefs, and skills in the acceptance of experiences. *Mindfulness.* 2023;14(12):2917-2931.

18. Ådnøy T, Solem S, Hagen R, Havnen A. An empirical investigation of the associations between metacognition, mindfulness, experiential avoidance, depression, and anxiety. *BMC Psychol.* 2023;11(1):281.
19. Oblitas Guadalupe LA, Soto Vásquez DE, Anicama Gómez JC, Arana Sánchez AA. Incidencia del mindfulness en el estrés académico en estudiantes universitarios: Un estudio controlado. *Ter Psicológica.* 2019;37(2):116-128.
20. Mauriz-Turrado I, Fernández-Rio J. Una intervención educativa con adolescentes basada en el mindfulness: Investigación Cualitativa. *Retos.* 2023;49:642-651.
21. Soriano JG, Pérez-Fuentes MC, Molero-Jurado MD, Gázquez JJ, Tortosa BM, González A. Benefits of mindfulness-based symptoms for the treatment of anxious symptoms in children and adolescents: Meta-analysis. *Rev Iberoam Psicol Salud.* 2020;11(1):42-53.
22. Amutio Careaga A, López-González L, Oriol X, Pérez-Escoda N. Predicción del rendimiento académico a través de la práctica de relajación-meditación-mindfulness y el desarrollo de competencias emocionales. *Univ Psychol.* 2020;19:1-17.
23. Murillo SC, Navia Manzano JA. Analysis of the inclusion level and possible barriers of the development techniques of emotional intelligence and in particular that of mindfulness in the area of Physical Education in ESO. *Retos.* 2021;41:562-572.
24. Sossa Ochoa MP. Propiedades psicométricas de la escala Five Factor Mindfulness Questionnaire FFMQ en una muestra colombiana [Tesis de maestría]. Fundación Universitaria Konrad Lorenz; 2019.
25. Peralvo Cañar CP. Mindfulness en la autonomía emocional de la primera infancia, un comparativo Colombia-Ecuador [Tesis de maestría]. Universidad Técnica de Cotopaxi; 2023.
26. Nieto-Súa DL, Gómez-Velasco NY, Torres-Rojas IS. Semantic networks and scientific knowledge: A comparative analysis across disciplines. *J Infrastruct Policy Dev.* 2024;8(8):6409.
27. Unzueta Morales S. Algunos aportes de la psicología y el paradigma socio-crítico a una educación comunitaria crítica y reflexiva. *Integra Edu.* 2006;4(2):105-144.
28. Martínez Miguélez M. La investigación-acción en el aula. *Edu Desarro.* 2000;7(1):1-15.
29. Arboin Tafur C. Diseño de una escala de inteligencia emocional para niños de 5 a 7 años. [Trabajo de grado – posgrado]. Universidad de la Sabana; 2009.
30. Braun V, Clarke V. Thematic analysis: A practical guide. *Int J Transgender Health.* 2022;24(1):1-6.
31. Domínguez Alonso J, López Castedo A, Álvarez Rosales E. Involvement of social and educational variables in the assertive behaviour of adolescents. *Aula Abierta.* 2015;43(1):26-31.
32. Arancibia-Alarcón K. La relevancia de la autonomía emocional en contextos familiares y educativos. *Rev Reflexión E Investig Educ.* 2021;4(1):144-155.
34. Gómez NY, Jiménez González AE. La estadística como apoyo en los proyectos de investigación universidad-comunidad. *Rev Logos Cienc Tecnol.* 2015;7(1):27-34.
34. García Renata JA. La educación emocional: su importancia en el proceso de aprendizaje. *Rev Edu.* 2012;36(1):97-109.
35. Fernández-Berrocal, P, Ruiz Aranda D. La Inteligencia emocional en la Educación. *Electron J Res Educ Psychol.* 2008;6(15):421-436.
36. Bisquerra Alzina R, Pérez Escoda N. Las competencias emocionales. *Educ XXI.* 2007;10:61-82.