

# THE IMPORTANCE OF THE 1ST CEB TEACHER TRAINING TO KNOWING THE DETERMINANTS OF ACADEMIC PERFORMANCE OF STUDENTS WITH ADHD

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## Abstract

**Introduction:** Attention deficit-hyperactivity disorder (ADHD) is an issue that affects a high percentage of school-age population. Thus, working directly with hyperactive students has become an inevitable task in our lives, as educational professionals. Thus, it has become essential to ascertain new and effective teaching practices because understanding a teacher's role as a facilitating agent in the teaching-learning process is to understand that that role requires specialised preparation. It is in this context that our paper is based.

**Objective:** The aim of this study is to learn whether the continuing training of teachers helps them to acquire better knowledge about ADHD children, improving their perceptions and attitudes.

**Methodology:** from this point of view, the procedure adopted was the descriptive plan by survey. Data were collected using a questionnaire, considered the most appropriated procedure for descriptive studies. This study involved 117 primary teachers from a variety of schools. Most of them only have initial training (the number of teachers with some kind of specialisation in this area is very low).

**Results:** After analysing the survey data, a connection between the results and teacher's academic qualifications was made and the conclusion drawn is that the quality of the teacher's practices goes up with the teacher training on this issue. However, initial teacher training may or may not have been developed in the area of hyperactivity. For this reason, some teachers may not be sure of their answers (particularly regarding information pertaining to the main problems related to this issue).

**Conclusions:** The results of the study lead us to conclude that it is extremely important to get appropriate training throughout the professional career. This training can be related directly to this area or to other areas that are directly or indirectly connected to our work with the main aim of improving our intervention in school and to help the children with this pathology.

**Keywords:** ADHD, continuing training, appropriate intervention strategies

## INTRODUCTION

Children's hyperactivity has been known in different ways: "minor brain dysfunction," "minimal brain damage," "minimal brain dysfunction," "hyperactive child syndrome," "hyperkinetic childhood reaction" and "hyperkinetic syndrome" <sup>1</sup>. To characterise ADHD, the symptoms should not be manifest alone<sup>2</sup>. They must be present and persistent throughout the person's history and cause significant losses in their daily activities in more than one context, such as: at home, at school, at work, in leisure activities, etc. <sup>3</sup> the description hyperactive children's behaviour there is a general agreement<sup>4</sup>. For them, most authors select excessive motor activity, a low capacity to focus and impulsivity as defining characteristics of hyperactive children. Some studies<sup>2</sup>, <sup>5</sup> shows there is a classic symptomatic triad to characterise

attention/hyperactivity deficit disorder: inattentiveness, hyperactivity and impulsivity. Children and adolescents with this deficit reveal many difficulties in maintaining attention in the classroom, do not complete school work, make mistakes because they have not paid attention to detail, have difficulty following instructions, especially if they are given sequentially, are disorganised with their materials and require extra attention from the teacher; they easily forget everyday tasks, lose objects easily, seem absent at certain times, seemingly not hearing when they are called upon <sup>2</sup>. Other author <sup>6</sup> extend this, saying that these children have difficulty in paying attention to two stimuli simultaneously, such as listening to the teacher and paying attention to the board; they avoid tasks that require greater and continued mental effort. Attention deficit is higher in auditory attention, or when they need to listen, than in visual attention, or when they need to watch <sup>7</sup>. Nevertheless, it is possible to maintain directed attention longer, reducing the severity of the problem if the activities are intrinsically interesting and full of stimuli. Computer and video games and television are examples of activities they enjoy and are likely to mitigate this problem <sup>2</sup>.

Today and more than ever, children spend a large part of their lives in the classroom. In this sense school is as never before an educational institution par excellence; it is no longer limited to only teaching school subjects, but also to conveying a series of ethical and moral values.

Most hyperactive children are disobedient at school and raise discipline problems. They do not follow the teacher's orders. When it comes to their peers, they are the ones who dominate. They may exhibit learning difficulties and poor academic performance, not because of any kind of "mental retardation," but because of hyperactivity, impulsivity and inattention <sup>1</sup>.

In the classroom, hyperactivity is considered a problem that is not easily resolved with a possibility of dragging on over time <sup>8</sup>. In order to fight these problems and their extension throughout the child's life, it is essential that the teacher be aware of some of their students' academic, behavioural and socio-emotional difficulties and to be seen as sensitive and sympathetic, adapting their practices to all ability levels <sup>9</sup>.

In this line of thought, and because most of these children have low self-esteem, it is essential, <sup>10</sup> that the teacher encourage, understand and praise the child in order to avoid possible depression because these children are often the target of negative reactions and punishments.

This author also presents other strategies that could be adopted in working with these children: teachers must develop a sense of competence and responsibility in students. For this, they should help the children to develop and improve their image basing it on their strengths (after identifying them). Hyperactive and impulsive behaviours may also destabilise the other students in class and for this reason, it is important that the teacher has enough knowledge to know how to respond to the educational needs of all students and adapt appropriately in the classroom so as to prevent this disorder.

A great deal has been investigated on hyperactivity, both nationally and internationally. However, the range of studies specifically on the need for teacher training in this area has not been as comprehensive. Thus, below are some national and international studies which indicate the need for training and intervention in schools.

We attach particular importance to the national study <sup>11</sup> due to the similarity of its main aim to what this work intends to achieve. This study provided knowledge regarding the problems of students with ADHD and the benefits of an appropriate intervention, both in behavioural terms and in academic terms. The author formed two groups: CG (control group) and EG (experimental group). Both groups were given a pre-test and a post-test. EG underwent a training programme and intervention on Attention Deficit Hyperactivity Disorder (ADHD-TPI) for three months. The aim of this programme was to provide teachers with theoretical, practical knowledge, enabling them to intervene, that is, giving them “know-how.” After applying this training programme, it was found to have contributed significantly to the disseminating knowledge about ADHD, which was reflected in adapting educational practices to the problems resulting from this disorder. This improvement was reflected in terms of behaviour with significant improvements both in the behaviour, attention and academic achievement of students with ADHD. The same was not observed in the control group that did not undergo the training programme.

Another Portuguese study <sup>12</sup> also proves that there is a lack of knowledge surrounding this issue, both in teachers’ initial and continuing training. This author hopes that in the future there will a greater investment in teacher training with regards to ADHD in order to provide a more positive performance in the classroom.

More recently in another national study<sup>13</sup> indicates that teachers attach great importance to the educational strategies in the classroom as a way to help children

with ADHD to moderate their difficulties in terms of academic learning. However, in this study, the participants admit they have little background information on this disorder, so that they show a lack of knowledge, particularly with regard to the importance of medication as an important means to alleviate its symptoms and, more importantly, felt great difficulty in relation to what they should do when they have a child with ADHD in the classroom.

In the same year in Portugal, <sup>14</sup> also drew attention for the need to ensure that teachers in regular education, special education teachers, psychologists and therapists who work with children with this condition, have qualified training. The research led the author to see that most of these experts are aware of this issue and understand its causes and forms of intervention. However, the idea was reinforced that there is a great deal of work ahead in order to ensure that these professionals are provided with sufficient and quality training and information, since there continue to be references in terms of aetiology of this disorder which are far from the main trends of current research.

Besides these national studies there is other international research which also points to the need for teachers to update their knowledge in order to intervene in the most appropriate way possible.

A study in Austria <sup>15</sup> shows results such as teachers' lack of knowledge in this area. Thus, according to the author, there is a great need for more teacher training in order to meet the needs of their students with ADHD directly.

In Canada, another study <sup>16</sup> shows that teachers feel they need training in ADHD, particularly in the context of effective educational interventions to be implemented with their students. According to this author, it is the teachers themselves suggesting changes to the curriculum at the stage of initial training. The author adds that given these results, teachers should regularly update their knowledge with regards to ADHD, because in this way, they may intervene and help improve their students' results and not be confined solely to pharmacological interventions as a way of treating this pathology.

Also in South Africa, a study <sup>17</sup> shows that courses for teachers are needed, both before starting their professional training, and throughout their professional careers, so that knowledge and intervention strategies in behaviour and for the academic achievement of students with ADHD will be made available to teachers.

A study <sup>18</sup> in Spain is also worth highlighting. This study concluded that in order to improve the teaching-learning process of students with ADHD, it is crucial to invest in specific training on this issue with this training extending over each teacher's career. These authors corroborate the idea expressed by other author <sup>16</sup> regarding the education reform. Both studies report the need to adjust the curriculum in initial training.

In the same line of thought, <sup>19</sup> can say based on their study that the first step to be taken in ADHD intervention in schools is initial teacher training, because only thus will it be possible to identify children with ADHD and then offer proper treatment in the school environment.

In Brazil, <sup>20</sup> also conducted a study that involved several specialists such as doctors, psychologists, teachers and educators. The results obtained in this study showed that these health and education professionals provided inadequate diagnoses and treatments as they held beliefs that were not based on proven scientific support. In this way, the author called for the creation of information programmes on ADHD.

Given this analysis, we conclude that there is a need for ongoing training which is now, more than ever, essential as we have found that throughout the various corners of the world, these children are not always given the help they really need. A simple understanding of this pathology is indeed not enough to meet their needs and offer proper treatment. For this reason, all of us, as professionals, increasingly recognise the relevance of constant teacher training, not only in this area but in all the areas that directly relate to our students.

## **METHODOLOGY**

Given that this study seeks an explanation of the relationship between variables, we chose to use a quantitative, descriptive, analytical and correlational methodology. Our purpose was to present an analytical and descriptive correlational study, which aim is to analyse whether ongoing teacher training provides knowledge about children with ADHD. From this overall aim we intend to address the following specific aims: to determine whether 1st CEB teachers know the reality of their students with ADHD; to find if 1st CEB teachers receive training on ADHD; to identify the how much 1st CEB teachers know about ADHD; to learn the measures and intervention strategies most often used by teachers with their students who have ADHD; to

analyse the effects of ongoing training on 1st CEB teachers' knowledge; to discover the most common behaviours and academic achievement of children with ADHD.

Thus, we chose to use an existing questionnaire which had been applied in another study <sup>11</sup> as it seemed to be the most suitable to achieve our aims. Moreover, the items in <sup>11</sup> were shown to have a high internal consistency.

The questionnaire has 32 questions divided into five parts. The questions are mostly closed with only one possible answer being selected. Questions related to the strategies adopted are open, since they intend to collect the various strategies employed and simultaneously the teacher's knowledge on the appropriate strategies related to behaviour and maintaining student attention. Questions related to knowledge are all multiple choice, and there are a further thirty statements to be classified as true or false.

## **RESULTS**

This study used a non-probabilistic convenience sample consisting of 117 1st CEB teachers, 84.62% (n=99) are female and 15.38% (n=18) male. Regarding academic qualifications, most, 69.23% (n=81) respondents hold graduate degrees.

As for length of service, the majority have between 12 and 23 years of teaching experience, i.e., 41.03% (n=48) of respondents have some professional experience. They are followed by those with less than 12 years of service, 34.19% (n=40), and finally, 24.79% (n=29) have between 24 and 35 years of service. Most teach in rural or urban areas so that this variable can be associated with the need and/or concern regarding training. Thus, the respondents 64.66% (n=75) teach in rural areas and the remaining 35.34% (n=41) teach in urban areas.

With regard to direct contact with students with ADHD, we found that 32.74% (n=37) of respondents work with such children and 67.26% (n=76) do not work with children with this condition. As for time spent with these students, 30.56% (n=11) have worked with these students for less than six months, 25.00% (n=9) for a year, 16.67% (n=6) of respondents have worked directly with these students for two years. A small percentage, 13.89% (n=5) have worked with these students for over two years; and finally, the same percentage, 13.89% (n=5) of respondents reported working with these students for over six months.

A significant percentage of students are in a class with children at different levels of schooling. 67.57% (n=25) and only 27.03% (n=10) had students who were all in the

same grade. We found that a high percentage of students had never been retained in the same grade. Only 19.44% (n=7) had been retained and 80.56% (n=29) had not. In our universe of 34 children, most have not been signalled as having the problem, so they do not receive any specialist support to meet their needs. That is, 58.82% (n=20) receive only the support of their main teacher provides and the remaining 41.18% (n=14) do have the possibility of receiving some specialist support as a supplement.

There was a large percentage of teachers, 73.5% (n=86), who did not have any training on Attention Deficit Hyperactivity Disorder in their initial training. The remaining 26.5% (n=31) had classes which addressed this issue. Throughout his career are quite significant numbers of teachers who have never received training in this area 88% (n=103) and only a small percentage, 11.1% (n=13) has done so.

With what concerns identifying the main difficulties experienced by teachers who work directly with their students with ADHD, the most commonly mentioned difficulty (n=30) was finding strategies to promote attention/concentration. Also mentioned by a large proportion of teachers (n=26) was the difficulty in controlling stimuli and behaviours. The difficulty in finding strategies to interest and motivate them should also be noted due to the number of responses mentioning this. This was reported by 21 teachers; 17 teachers pointed out the difficulty of finding appropriate teaching strategies as their major difficulty. 6 pointed out the difficulty in meeting the students' needs, or giving them more individualised attention and support, supervising their performance more regularly.

Regarding the strategies adopted, we found that many of the teachers surveyed (n=38) mentioned establishing rules, dialoguing with the student (n=36); positive reinforcement was pointed out by 21 teachers, and individualised instruction was referred to by 11 teachers. Analysing the answers given by the teachers, we see that generally speaking, teachers knew their students' reality, although we was found that there were still teachers who did not know certain aspects related to them. Thus, the intended objective, to find out whether 1st CEB teachers knew the reality of their students with ADHD has been reached.

Relative to ongoing training on ADHD, we have been able to show that teachers receive little training. Nearly none of our sample received any training in this area during their careers. The knowledge they have, they obtained in their initial training and their professional experience, in the contact they had with students with ADHD.

Thus, our aim of determining whether 1st CEB teachers receive training in ADHD has also been clarified. What we found was that most of the teachers surveyed, therefore, feel difficulties in directly working with these students in different situations, such as: defining strategies of attention/concentration, controlling behaviours, defining interest/motivation strategies, defining appropriate teaching strategies, among others less often mentioned by respondents. Most teachers said that they currently have little knowledge, but at the same time a significant percentage of teachers also reported having sufficient knowledge.

Regarding the aim of identifying the degree of knowledge held by 1st CEB teachers on ADHD, we found that despite the difficulties revealed by some teachers, many were shown to hold many relevant notions because their answers to questions related to knowledge on this topic were correct and sometimes in significant percentages.

As for knowledge of the measures and intervention strategies most often used by teachers with students with ADHD, we found that they include establishing rules/penalties, dialoguing with the students to show understanding and to convey confidence, providing positive reinforcement, dialoguing with parents/guardians in order to continue the work developed in school and individualised education at home, among others.

With respect to learning about the most common behaviours and academic achievement of children with ADHD, analysing the relevant data we found that these children, with some exceptions, are generally conflictual and have maladaptive behaviours. Their relationships with their peers and the educational community at large tends to be moderate or even weak. These children usually find it difficult to pay attention to the instructions they receive and (most of them) tend to disturb the normal functioning of classes. For all these reasons their results often do not match their abilities. Most of the children in our study are at the same level of achievement as the remainder of the class in the different curricular areas with some reaching higher levels of achievement than their classmates.

## **DISCUSSION AND CONCLUSION**

ADHD poses several challenges for the children themselves, parents, teachers and the remaining educational community.



The inattentive children have difficulty focusing on certain tasks; they do not pay attention to detail, do not seem to understand the orders or instructions, are easily distracted and often have inappropriate behaviours, such as disturbing or disrupting classes and/or being defiant. They need to be accompanied by a multidisciplinary team, where parents and teachers are key elements. Our study concludes that there are significant differences in knowledge, perceptions and practices among teachers with regards to ADHD depending on their training.

Even the teachers surveyed admit experiencing difficulties in different situations and above all, recognising they do not have sufficient knowledge on this issue. As found in their studies<sup>12,13</sup> we also conclude that teachers reveal a lack of knowledge in different situations related to ADHD including appropriate interventions to mitigate the symptoms displayed by their students. Teachers attach great deal of importance to educational strategies in the classroom<sup>13</sup>. We found the same in our study.

However, both studies found that the stakeholders consider themselves to be poorly informed about this area. Given this, we recall the studies<sup>18,15</sup> which pointed to the urgent need to invest in training so that teachers can intervene in a consistent and responsible manner, thereby meeting their students' needs.

Our study reached the same conclusion and share the view expressed by several authors<sup>16,17,19</sup>

insofar as investment in teacher training should begin with reforming the curriculum. It is extremely important to modify initial training and provide teachers with sufficient knowledge, not only on this issue, but on many others that affect a great deal of children. We must think about the most difficult cases in our daily lives and reflect on what we can do to about these children's success. Only then can we put inclusion into practice, being aware that we are giving our best and that more cannot be done.

We also conclude that initial training by itself is not sufficient. We believe that it should be extended over the lifetime of every professional educator, as well as all professionals directly connected with these children. Because even specialised professionals do not always act in the most correct way, as, even they must take part in constant training<sup>20</sup>. ADHD is an increasing concern for researchers, both nationally and internationally, in trying to find more effective ways to treat and prevent it, and above all, to define modes of action for teachers to appropriately deal with children who have this problem.

As teachers, we have the leading role to help these children to overcome or mitigate the barriers imposed upon them by their own problem. It is therefore necessary that we are endowed with both theoretical and practical support, through continuous, quality training because only then can we support and promote the healthy development and successful integration of children with ADHD in the family, school and society.

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