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EDITORIAL

The Impact of Distance Education, Due to COVID-19 On Children with Attention Deficit Hyperactivity Disorder (ADHD): Practicing Effective Inclusive Pedagogical Approaches in Greece

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ABSTRACT

In early 2020, the COVID-19 pandemic appeared, due to which strict health measures were announced by the World Health Organization around the world. Among these health measures were the strict adherence to hygiene, the use of a protective mask and social isolation. These measures were, immediately, implemented in schools worldwide. School, after all, is a living social system, which is included in the wider society and interacts with it. For this reason, every important social phenomenon that brings about changes in the way of life of humanity (pandemic, war, etc.), directly affects the school environment, forcing its adaptation to them. Therefore, schools in Greece implemented distance education for all the students, during the 2020-21 school year, applying inclusive distance education practices for children with special educational needs and disabilities. In Greek schools, children with Attention Deficit Hyperactivity Disorder belong in the category of “students with special educational needs”. Unfortunately, as proven by research, COVID-19 had a negative impact on children, diagnosed with Attention Deficit Hyperactivity Disorder, having affected children’s behavior to such an extent that great difficulties are observed in their adapting to the social conditions of school. Because of these results, inclusive pedagogical practices are formed in Greek public primary education to help these children adjust into the school learning environment. This theoretical study will document the above facts and will, also, present these practices.

Introduction

For many years, smooth inclusion of children with special educational needs and disabilities in the school context has been a matter of discussion and reflection for the science of special education¹. As Zigmond² reported, school inclusion is characterized by all those practices that will help in the effective co-education of children of typical development together with children with special educational needs and disabilities.

Especially nowadays, worldwide, humanity is plagued by the COVID-19 pandemic, due to which, 2 years ago, social isolation and strict hygiene measures were imposed by the World Health Organization for preventive reasons³. These preventive measures had been extended by the World Health Organization to schools, so they remained closed for a year and a half, applying distance education⁴.

As a result of social isolation and the fact that there was no teaching in the classrooms, there seems to have been a worsening of learning and emotional difficulties faced by children with special educational needs and disabilities, including those who have been diagnosed with Attention Deficit Hyperactivity Disorder, according to research in several countries^{5,6,7}. Attention Deficit Hyperactivity Disorder is a neurodevelopmental disorder that includes characteristics, such as: difficulties in focusing attention and hyperactivity along with impulsivity, difficulties in children's everyday functioning at school, while it affects their emotional state and learning ability as well⁸. For all the above reasons, it is important to implement specific educational practices, in order for children with this disorder to be able to meet the learning requirements of their school environment. The author works in one of the Centres of Multidisciplinary Assessment and Consultant Support of the Greek Ministry of Education. In these centres, young students from preschool age to adolescence are assessed, so as to make a diagnosis of their special educational needs in order to offer them the appropriate educational support at school.

Therefore, in this study, there will be a presentation of this disorder and the negative impact of the COVID-19 pandemic on students, suffering from it, while the author will refer to the most important effective inclusive pedagogical practices, formed in the Greek kindergartens and primary schools by the Greek State.

Defining Attention Deficit Hyperactivity Disorder

Since 2013, in the DSM-5 diagnostic classification of the American Psychiatric Association⁹, Attention Deficit Hyperactivity Disorder (ADHD) has been included among neurodevelopmental disorders, as well as, recently, in 2022, in the system classification of diseases (ICD-11) of the World Health Organization (WHO)¹⁰. The term "neurodevelopmental disorders"

was established internationally in 2008 by Rutter¹¹, proposing the existence of three criteria for a disorder to belong

to this category: a) the onset is placed in infancy or childhood, b) there is damage or retardation in the development of functions related to the central nervous system and c) to have a steady course without observing ups and downs.

The key feature of Attention Deficit Hyperactivity Disorder is that it is a set of symptoms that, typically, begin early, from the preschool period, and are characterized from developmental deficits, which affect learning and, eventually, social-emotional functionality¹². Research studies that have taken place, since the beginning of the 21st century, converge on three very important findings^{13,14}: First, the clinical description of the main symptoms of Attention Deficit Hyperactivity Disorder in childhood concerns: a) inattention: not completing tasks, easily distracted along with inability to concentrate, b) hyperactivity: nervousness or the constant movement of the body when sitting, get up for a while and move around, cannot sit for more than 5-10 minutes, talk excessively, c) impulsivity: low self-control and patience, spontaneous answers to questions without prior processing and d) emotional volatility, which is an element of affective impulsivity and includes tendencies of easy anger, easily being upset, excessive emotional reaction, easy annoyance, easy excitement, easy loss of temper. Secondly, worldwide, the most recent data from the extensive research on Attention Deficit Hyperactivity Disorder report a prevalence of the disorder in 5.9% of children¹³⁻¹⁴. Thirdly, this disorder is attributed to the combination of many genetic and environmental factors¹³⁻¹⁴.

In addition to learning disorders, Attention Deficit Hyperactivity Disorder significantly affects the child's psychology, causing unpleasant feelings. According to Salomonsson¹⁵, in a child, suffering from this disorder, the internal object seems threatening, inaccessible and repulsive. In psychoanalytic interpretations, the constant frustrating experiences, resulting from the child's unsuccessful attempts to get in touch with his/her inner object, inevitably, lead him/her to a strong psychological imbalance and to emotional outbursts, which may be expressed by the core symptoms of the disorder, such as inattention, impulsivity and hyperactivity¹⁶⁻¹⁷. Moreover, children with Attention Deficit Hyperactivity Disorder experience emotional self-regulation difficulties at all levels, which are attributed to a more general difficulty in regulating their desires, which in turn causes the apoptosis of their relationship with the self and with their internal object¹⁸.

The above symptoms of Attention Deficit Hyperactivity Disorder were confirmed by the author,

empirically, during the evaluative observation of preschool and first school children at their school environment, but also in their individual assessment. In particular, preschool children seem to show emotional immaturity, anger outbursts, inability to adapt to the school context and difficulties in forming functional relationships with their classmates and teachers. Furthermore, it, also, seems that children of first school age understand their learning weaknesses and express them with outbursts of anger, self-effacement and withdrawal from the educational and learning process, while during school breaks, they are, often, involved in fights with their classmates. A common characteristic in counseling sessions is that school leaders and teachers complain to the author about dysfunctional behavior at school, while parents complain that their children strongly refuse to do their homework. Therefore, seeing the dysfunctions that Attention Deficit Hyperactivity Disorder can cause in various developmental areas, it is important to be diagnosed early, to be accepted by parents, so that the child can start appropriate therapeutic interventions as soon as possible.

The influence of the COVID-19 pandemic on preschool and first aged school children with Attention Deficit Hyperactivity Disorder

The year 2020 has been a year marked by the COVID 19 pandemic, bringing significant changes to humanity, worldwide. In order to avoid the rapid transmission and serious effects of this virus on the human body, the World Health Organization published a series of preventive measures, which changed people's lifestyle to a great extent¹⁹. These measures, mainly, concern hand hygiene, the use of a protective mask in outdoor and indoor spaces, promoting, however, social isolation (quarantine) as the main measure²⁰.

Since school is an open system, a small society within the wider one, it is directly affected by any social change. Therefore, educational systems, suddenly, were forced to adapt to these changes, resulting in the closure of schools and the implementation of distance education, worldwide. This urgent and rapid educational change seems to have affected the mental health of children negatively, especially those who have been diagnosed with Attention Deficit Hyperactivity Disorder. According to research studies, surveys and practitioner reports, there has been an increase in referrals for Attention Deficit Hyperactivity Disorder assessment, as well as worsening of symptoms and difficulties in adapting to COVID-19 preventive measures²¹. Children with ADHD need structure in their everyday lives as well as in their learning, because of their difficulties in self-organization and attention focusing²². As it seems, remote learning can be difficult for them and has

affected their academic performance negatively²². With the opening of schools, after a long period of distance education, young children had to adjust again to a demanding school program with instructions and a schedule, so this caused them performance anxiety and behavioral difficulties²¹⁻²². In addition, the need of the families to provide technological infrastructure for the distance education of their children, caused mental exhaustion to the parents and by extension to their children, especially in families belonging to economically weakened groups²².

At her work in an Interdisciplinary Assessment and Consultant Support Center of the Greek Ministry of Education, the author sees, empirically, how the above findings of international research are proven practically, through the evaluations of preschool and first school age children, but, also, through counseling sessions with teachers and parents. Although, as it seems, this would have been a very significant piece of information, unfortunately, in Greece, there is not a wide scientific research in all Interdisciplinary Assessment and Consultant Support Centers of the Greek Ministry of Education and Religious Affairs to give a reliable wider result for the prevalence of the worsen symptoms of Attention Deficit Hyperactivity Disorder in young students, due to COVID-19 pandemic and their social isolation.

Forming effective inclusive pedagogical approaches to young students with ADHD in Greece after reopening schools

According to UNICEF²³, inclusive education is the only effective way for all children to have a fair opportunity at school to develop the skills, they need to thrive. It, also, means that all children share the same classrooms at the same schools, being provided with real learning opportunities²⁴. Scholars of inclusive education, also, define that it concerns the placement of all students, regardless of the challenges they may have in appropriate general education classes, in order to receive a high level of teaching, intervention and support, aiming at their successful response to the curriculum²³. In the medical model, disability is defined as a malfunction of the human organism, which is caused by special health conditions, trauma or disease and, therefore, requires special medical care and other therapies, such as speech, psychological or occupational ones by specialized professionals²⁴. Therefore, when learning barriers are presented in the classroom, young students, diagnosed with special educational needs, receive specialized help and treatment by professionals. This is why, in Greece, children diagnosed with Attention Deficit Hyperactivity Disorder, in addition to their medical follow-up, they, also, participate in occupational therapy and

psychotherapy sessions, along with speech therapies, if needed, and additional educational support from a special education teacher.

In the Greek educational system, children of preschool and school age, who are diagnosed with Attention Deficit Hyperactivity Disorder, belong to the category of “children with special educational needs”, according to Law 3699/2008²⁵ and they are granted additional pedagogical support in the classroom by a special education teacher (Parallel Support). This in-school support is only provided by the Interdisciplinary Assessment and Advisory Support Centers of the Greek Ministry of Education and Religious Affairs, after assessing the students’ special educational needs. The Greek Ministry of Education has, also, established schools with more specialized staff of social workers and psychologists, in order to help young students with Attention Deficit Hyperactivity Disorder and guide their families to face the increased social-emotional transitions, caused by social isolation, due to the COVID-19 pandemic. Because of COVID-19 crisis, Greek public kindergarten and primary schools can create more powerful inclusive environments, using specialized educational tools for children with ADHD, provided by the Greek Institution of Educational Policy, such as: a) digitally accessible material and effective inclusive pedagogical practices designed for students with learning difficulties

<https://prosvasimo.iep.edu.gr/el/> , b) personalized educational program guides for students with ADHD, based on current research data

<http://www.iep.edu.gr/el/odigoi-link/odigoi-gia-sdev-edev-eeep>, c) special material (audio, visual, etc) which helps the development of mental abilities and learning readiness on topics, such as: oral speaking, psycho-activity, mental abilities and

emotional self-regulation http://www.pi-schools.gr/content/index.php?lesson_id=200&ep=1 9, d) digital labs for teachers to help students develop important skills, such as social awareness and responsibility, so as to create an effective inclusive school environment <http://iep.edu.gr/el/psifiako-apothetirio/skill-labs>, e) adapted detailed curricula for students with special learning difficulties http://www.pi-schools.gr/special_education_new/html/gr/8emata/ma8isiakes_disk/ma8isiakes.htm .

Conclusions

From the scientific research, presented in this theoretical study, it seems that, worldwide, there is an increase of young students, suffering from Attention Deficit Hyperactivity Disorder. Their social isolation, due to the COVID-19 pandemic seems to have increased their severe socio-emotional difficulties, so the need to adjust to the stimulating school environment after school reopening is an additional stressor for these children. Greek Educational Policy places great importance on inclusive educational practices, providing a wide range of pedagogical tools for children with learning difficulties and Attention Deficit Hyperactivity Disorder.

However, it is important to improve the Analytical Study Programs, in the Greek preschool and primary education further towards a more inclusive direction, especially now that the negative emotional and learning difficulties are visible to young students with Attention Deficit Hyperactivity Disorder. The author hopes this theoretical study will further support young students who suffer from this disorder: a young generation of the 21st century which is greatly affected by the impacts of COVID-19 pandemic.

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