

#### Research Article

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# Treatment of Children with Attention and Hyperactivity Disorders

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#### Abstract

ADHD is one of the most common disorders described, studied and treated over the last decade. Attention Deficit Hyperactivity Disorder is a massive psychological problem encountered in children 2-11 years old. The purpose of this paper is the identification of attention disorders and hyperactive behaviors in children, and the main causes of attention deficit hyperactivity disorder in children. Identifyiq therapeutic treatments used to manage attention disorders and hyperactive behavior in children is also a goal of our article. The case study and qualitative analyzes were applied to conduct this study and to achieve some objectives such as: Presentation of the main problems that children with ADHD revealed; identification of the causes and factors that cause hyperactivity; exploration of the impact of early intervention of treatment therapies; identification of the role of the psychologist in the treatment of hyperactivity disorder in children. The instruments for data collection used in the study were: Case study; vertical grille observation; interview; focus groups. The results show that the treatment of children with ADHD, with Therapy and Individual Education Plans, improved the parameters of these children such are the improvement of motor parameters, cognitive training and communication training. Therapies and Individual Education Programs (IEPs) applied to children with attention disorders and hyperactive behavior positively affects their attention span, and management of their hyperactive behavior. Medication, Cognitive behavioral therapy, Psychotherapy and social behavior therapy, positively affect cognitive development and social skills, reducing hyperactivity, and focusing attention of children with ADHD.

**Keywords:** Hyperactivity, impulsivity, ADHD, Attention disorders

#### Introduction

The field of study of children with ADHD disorder is developing more and more as a result of the growing problems that the children of this target group are displaying nowadays in school, family and community. "ADHD has been one of the most prevalent disorders described, debated, studied and treated in school over the last decade." (Kendall, P. C. 2016).

Children with ADHD carry this disorder from birth; however it is noticed especially after reaching 3-4 years of age. Compared to their peers, in the period of development these children show hyperactivity, nervousness, impulsivity, and a state of always being nervous and quickly distracted. ADHD is an indicator for professionals and parents on how to explain behaviors to a child in a way that emphasizes strengths and builds trust. (*Thompson AL, Molina BSG, Pelham W, Gnagy EM.*2007)

Hyperactivity – One of the most noted disturbs of hyperactivity is the lack of concentration. This represents a massive psychological problem encountered in children 2-11 years old. Hyperactive children reach the peak of their distraction at the age of 7-8 years old. ADD and ADHD is a normal behavioral and developmental disorder seen in preschool and school-age children. (*Kaplan, G.* 2012)

Children with ADHD are typically manifest concentration problems, as well as hyperactivity. It is estimated that 3-5% of children across the globe suffer from this disorder. Hyperactivity is 10 times more prevalent in boys than in girls, and is characterized by excessive activity that is inadequate and unproductive, short attention span, and impulsivity. (Wender, P. 2017)

# Types of ADHD in children based on symptoms:

**The combined type** (*Inattentive, hyperactive, impulsive*) children with this type of ADHD manifest all three symptoms. This is the most common form of ADHD;

**Hyperactive/compulsive type**: Children show hyperactivity and impulsive behavior simultaneosly, however they are attentive;

**Inattentive type**: Known as Attention Deficit Disorder. These children are not very active. They do not strain the class or perform other activities so their symptoms may go unnoticed. (Willcutt, E.G. 2012)

#### 2. Literature Review

# 2.1 Characteristics of children with ASD

Children who are hyperactive and have a severe lack of concentration, are restless, quickly distracted, can not be stopped during their agitated activity and find it impossible waitING, even for a few seconds. They show signs of impatience, get nervous and get hurt very quickly. The more they face new environments and feel alienated in it, the harder it is for them to give up their capricious vices. (How Children Thrive: May. 1, 2018)

Children with ADHD are also more active during bedtime. Their activity in the morning is different from other children with special needs. There are several types of hyperactivities, and it is not always very clear which are the most deviant types from children with ADHD. Objective measurements of the level of activity displayed during attention-seeking tasks show that children move their bodies and heads more than others and move more out of their chairs than others. (Yunta, J. A. M., Palau, M., Salvadó, B., & Valls, A. 2006)

## 2.2 Symptoms of hyperactive children

Many studies showen that children who are hyperactive and lack concentration, or whose duration of concentration is limited, are very sensitive to minor environmental disturbances, meditate on something else while staring at the classroom table or looking in the eye. These children find it impossible to remain sitted and listen patiently. They move from left toright distracted without purpose. They play with their hands and fingers, scratch their fingers, bite their nails, scratch their faces somewhere, or hit with any kind of object to produce a rhythmic noise (Kulla, F. 2002).

They show no care for their belongings; they often lose things. Although they may have normal intelligence, they are not successful at school. The first days of school try to attract their attention with controlled movements and gestures, as they find it difficult to sit and listen. Their justification is that they already know what the teacher is explaining; thence they disregard what is being explained in the clasrrom. They also have the confidence that the unclear topics will be explained again by the adults once back home. In the upper grades, self-belief turns into disbelief, boredom, and nervousness from lessons. (Save the Children 2012)

# 2.3 Lack of attention

The autistic child does not pay attention to details and makes mistakes by not paying attention to homework, or other activities. He has difficulty concentrating on tasks or gaming activities. It often seems as if he does not listen when spoken to directly. The autistic child does not follow instructions and does not do homework. He does not want to get involved in tasks that require extended mental strain (such as homework or school assignments). Children with ADHD lose the objects needed for tasks or activities (eg: games, homework, books, and instruments). (Meazzini.P 2013)

The person with ADHD is distracted by stimultion (incentives). He is often careless in his daily activities. Given this characteristic of lack of attention, many researchers say it is one of the main deficits of this disorder that manifests itself in school, various activities or social situations. According to recent studies, the biggest problem of people with attention disorders and hyperactivity is maintaining their attention especially during a repetitive and boring activity and in play situations, where the child goes from one game to another without completing any. (Gunesh, A. 2018)

How do we know our student has ADHD? Most children with ADHD show symptoms before school starts. This child's behavior in the classroom is different from his peers. They often break the silence and disturb the peace of the classroom. The child with ADHD is distracted from the learning process;

How a student with ADHD behaves in the classroom? The student with ADHD is very impulsive, does not stay in one place, is misbehaved, often quarrels with friends. He/she hits furniture or his friends. The person with ADHD, does not wait in a queue, is impatient and interrupts the interlocutor, cannot fully explain himself/herself; he/she does not end things started; Writes badly; loses school tools; he/she always approaches the teacher's desk to ask off topic questions and returns off topic answers. (Nano, V, 2007)

How can ADHD be diagnosed? The diagnosis of hyperactive child is based on the criteria set by the DSM-5. A rigorous assessment is based on past medical history, family history, physical examination and information from professionals, school psychologists, teachers, clinical psychologists. This approach includes child observations, in-depth child interviews, clinical and school records. Includes interviews with teachers, child's parents, psychological and neurological testing. (Mayer, B. 2009).

"Individuals with ADHD have difficulty with executive functions," says Barkley. Executive functions include a range of self-directed behaviors, such as working memory, speech, and the ability to regulate emotions, and so on. (Ranok, Ch, Stone M. 2018)

Drug treatment- This treatment is used as one of the most effective to manage behavior and symptoms in hyperactive children. The drugs used are stimulants such as: methylphenidate (Ritalin) destroanfetamine (Dexdrine) (Risperdal) (Gylert). For many children, these drastically reduce hyperactivity and improve the ability to concentrate on work and learning. Medications can also improve your child's physical coordination, such as writing or sports activities. (Srebnicki, T. Srebnicki, A. Kolakowski and T. Wolanczyk, 2013)

Psychotherapy is a treatment that aims to help people with hyperactivity disorder accept and like themselves regardless of the disorder. In psychotherapy children talk to the therapist (psychologist) about thoughts, feelings, and worries, explore patterns of self-destructive behaviors, and learn alternative ways to control their emotions. Cognitive-behavioral therapy is a therapy that helps people work on immediate results. In addition to helping people reflect on their feelings and actions, dpd supports them in changing behavior. (Kollins, S. 2009)

Social skills training are included in the multimodal treatment. It can help children learn new behaviors. In social skills training, the therapist proposes and discusses appropriate behavioral patterns, such as: waiting in line, sharing toys with others, seeking help, or responding to provocations, giving children the opportunity to put these into practice. For example: a child can learn how to "read facial expressions, tone of voice, hence reacting appropriately" (Nano, V., 2002).

Self-helping groups put people in a relationship with other people with common problems. Many children with hyperactivity and their parentsneed to participate in these support groups. Many support groups address the consequences of the disorder in children with hyperactivity. Members of groups under the supervision of professionals talk about their failures and successes. Treating children with parental help

is based on modifying the child's behavior based on parental support. This treatment is one of the most effective ways to manage behavior in hyperactive children by teaching parents to recognize the importance of the child's relationship with peers and other adults. (Curatolo, P., D'Agati, E., & Moavero, R. 2010)

# 3. Methodology

The aim of the paper is to argue the effectiveness of therapies and programmes used to manage behaviors of children with ADHD. The populations of the study are childrens which are under treatment by experts in child development centers and special schools in Tirana, in Albania. This study presents the main problems that these children show, through exploring causes and factors that cause the appearance of hyperactivity. It aims at exploring the impact of early intervention treatment therapies. The understanding of the role of parents and teachers in the treatment of children and how they should followan educational programme with children with hyperactivity disorder is also presented. The study identifies the role of the psychologist in treating hyperactivity disorder in children. The application of therapies and treatments has a positive effect on the behavior management of hyperactive children. The instruments used for the study was the case study with three children, and the data collected by the observation and the interviews with psychologist.

# 4. Analysis and Findings

In the following chart, we present the findings of the study:

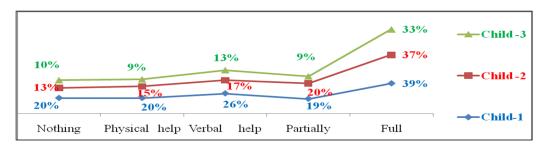


Chart 1: Motor Training. Children with ADHD, trained in Therapy and PEI

Chart No.1 shows that in motor training from the assessment carried out by the multidisciplinary group led by the psychologist, it results that: The first child exercised with therapy and Individual Education Programmes completed the assessment sections: The first child improved the parameter and global 39% fully; The second child improved physical parameters 37%; Third child improved physical parameters 33%

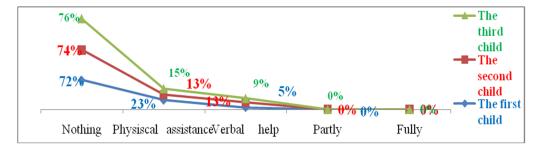


Chart 2: Motor training. The first child, untrained, with Therapy and PEI

Chart No. 2 shows that in motor training from the assessment carried out by the multidisciplinary group led by the psychologist, it resulted that: The first child without exercise with therapy and Individual Education Programmess completed the assessment sections: 72% blank 23% with physical assistance; 13% with verbal help. The second child was evaluated: 74% at the level of the Likert scale at all; 15% with physical assistance; 5% with verbal help.

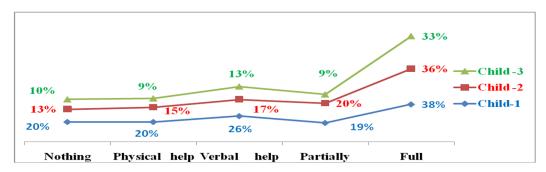
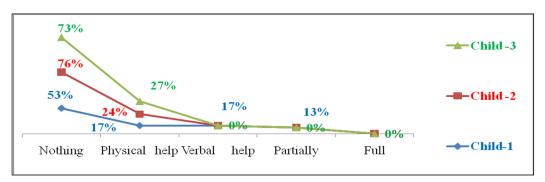


Chart 3: Cognitive Training of Children with ADHD, trained in Therapy and PEI

Chart No.3 shows that in cognitive training, the assessment carried out by the multidisciplinary group led by a psychologist, resulted that: The first child exercised with therapy and Individual Education Programmes completed the assessment sections and improved 38% of developmental parameters completely; The second child improved cognitive development parameters 36%; Third child improves cognitive development parameters 33%



**Chart 4:** Cognitive Training. Untreated child (control group)

In Chart No. 4, it is shown that in the cognitive development from the evaluation carried out by the multidisciplinary group led by the psychologist, resulted in: The first child without exercising with therapy and Individual Education Programmes completed the evaluation rubrics: 53% not at all. The second child was evaluated: 76% at the level of the Likert scale at all; 24% of the tasks were performed with physical assistance; 0% with verbal help. The third child had these evaluation parameters: he performed 73% of the rubrics at the Aspsk level of the Likert scale;

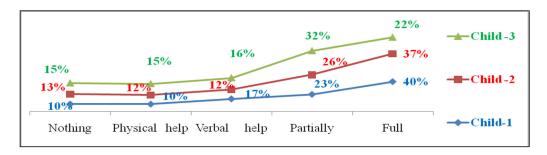


Chart 5: Communicative Training. Children with ADHD, trained in Therapy and PEI

Chart No. 5 shows the assessment of ADHD children's communicative development conducted by the multidisciplinary group led by a psychologist, it turned out that the first child exercised with therapy and Individual Education Programs completed the assessment sections and improved the parameters of communicative development 40 at the full level; The second child improved communication development parameters 37%; The third child improved communication development parameters 22%.

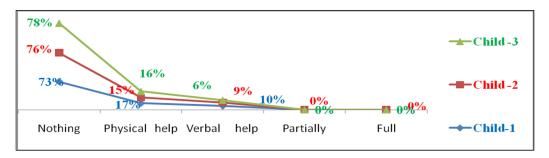


Chart 6: Communication Training. Untreated child. (Control Group)

In Chart No. 6, it is shown that in the communicative development, the evaluation carried out by the multidisciplinary group led by the psychologist, resulted in: The first child not exercised with therapy and Individual Education Programs filled in the evaluation sections: 73% not at all; 17% with physical assistance; 10% with verbal help; The second child was evaluated: 76% at not at the Likert level at all; 15% of the tasks were performed with physical assistance; 9% with verbal help. The third child had the following evaluation parameters: performed 78% of the rubrics at the Aspsk level of the Likert scale.

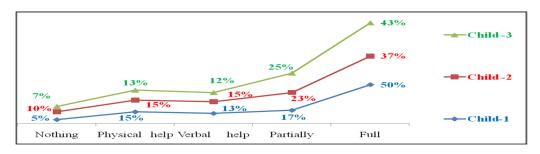
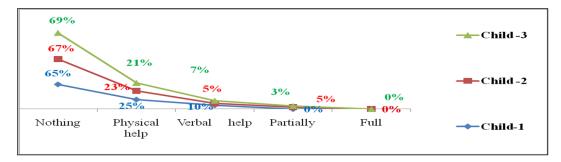


Chart 7: Social Training. Children with ADHD, trained in Therapy and PEI

Chart No. 7 shows the assessment of social development of children ADHD conducted by the multidisciplinary group led by a psychologist, it turned out that: The first child exercised with therapy and Individual Education Programs completed the assessment sections and improved social development parameters 50% at full level. The second child improved communication development parameters 43%.



**Chart 8:** Social training. Untreated child. (Control group)

Chart No. 8, shows that regarding social development, the evaluation carried out by the multidisciplinary group led by the psychologist, resulted in: The first child without exercise with therapy and Individual Education Programmes completed the evaluation sections: 65% at all; 25% with physical assistance; 10% with verbal assistance; The second child was evaluated: 67% at the level of the Likert scale at all; 23% of the tasks were performed with physical assistance; 5% with verbal assistance; 5% in part; The third child had the following evaluation parameters: performed 69% of the rubrics at the Aspsk level of the Likert scale;

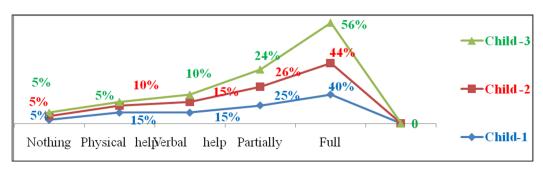
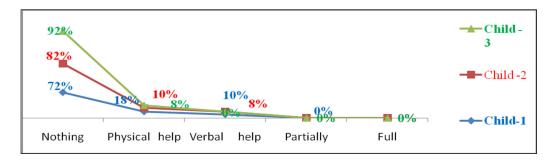


Chart 9: Stereotypical Behavior. Children with ADHD, trained in Therapy and PEI

Chart No. 9 shows that regarding stereotypical behaviors, the evaluation carried out by the multidisciplinary group led by the psychologist, resulted that: The first child exercised with therapy and Individual Education Programmes completed the evaluation sections and improved the development parameters 40% completely; The second child improved cognitive development parameters 44%; Third child improves cognitive development parameters 56%



**Chart 10:** Stereotypical Behaviors. Children with ADHD. Untreated. (Control Group)

Chart No. 10 shows that regarding the improvement of stereotypical behaviors, the evaluation carried out by the multidisciplinary group led by the psychologist, resulted that: The first child not exercised with therapy and Individual Education Programmes completed the evaluation sections: 72% left it blank; 18% with physical assistance; 10% with verbal assistance; The second child was rated: 82% at all at the Likert level; 18% of the tasks were performed with physical assistance; 8% with verbal help; The third child had the following evaluation parameters: performed 92% of the rubrics at the Aspsk level of the Likert scale;

#### 5. Discussions

The study dealt with the achievements case by case. For the treatement of the three childrens are used the ABA, TEACCH, PECSS methods.

**Case I.** Improvements that the child has had in his treatment and implementation of the educational programme: The child from the moment of joining this school has had improvements with verbal and partial help in these areas: motor development - The child has good motor development and appears agile. She began to concentrate more on following the programme applied by the teachers and had less mobility during activities. During the implementation of the PEI programme, the receipt of assistance has been partially improved.

Cognitive aspect- The child has added vocabulary and is able to form simple and regular sentences when focusing on teacher instructions. Understands situations well and creates cause-and-effect relationships. Has started to become active and participate in learning. The child's academic performance has had developments, varying from one assessment to the other.

Communication- Understands well what is being said and is often interested in what the teacher is saying. She likes to select the people and feels most comfortable with others. Manages to communicate quitely (except in moments of crisis) and waits for questions to be completed before answering. Based on the observed behaviors it was concluded that there is a positive impact expressed in a fewer number of hyperactivity symptoms such as movement from the desk, not waiting the line, incessant speaking. With verbal help she has achieved improvement.

Social aspect- Has managed to have a less aggressive relationship with peers, and is more attentive to the instructions given by teachers and parents. Rule play helped the child to adapt more easily to supportive techniques and to follow some of the activities with curiosity. Through play therapy and ongoing school activities he has achieved improvement.

**Case II.** Improvements that the child has had from therapy treatments and implementation programmes by the multidisciplinary group led by the psychologist: His improvement is evident since joining the school after the application of methods and techniques by teachers. It should be noted that this case had difficult problems as it appeared very impulsive and had signs of aggression in relationships with friends. His treatment by teachers and psychologists has been very difficult. The

children have done ongoing psychotherapy with the school psychologist in moments of resentment.

Motority- Has good motor development and looks agile. Began to focus more on the implementation of the programme by teachers and showed less mobility during the development of activities. He manages to focus more when the learning process is provided, when his instructions are checked and his problems and concerns are addressed. With physical assistance he has achieved improvement.

Cognitive aspect- The child understands what is being said and manages to form regular sentences when he is attentive to what the teacher is saying. Classroom management became increasingly difficult and the learning process encountered obstacles in some cases. Teachers use parent-like sensitivity and feelings in difficult moments with this child. Through verbal help, the behavior is improved.

Communication- The child was able to communicate calmly and not respond impulsively. However, impulsive and hyperactive behaviors are not eliminated. They just have a decrease in intensity. Through verbal help there has been improvement.

Social training- Moments of calm has increased, but there are still difficulties. Through verbal and physical help, even through psychotherapeutic sessions, there has been a noticeable improvement.

**Case III.** *Improvements the child has had from treatment with therapies and programmes*: The child's improvements were significant; however there is much need for improvement as there are problems with concentration and impulsivity.

Motor skills- The child has developed global mobility (tries to cut figures with scissors, tries to color inside the box, but still has difficulty). Based on the set expectations, the improvement has been very low or almost non-existent. Has difficulty concentrating and writing the words requested from. Since he is in the kindergarten group and has not yet learned to spell the words well, no assessments have been made on the writing part. Another aspect that hinders progress is that the child does not work with a proper programme, or does not apply the proper techniques.

*Cognitive aspect* - Manages to construct simple sentences. He has the skills and habits for simple tasks. With verbal help he manages to achieve results.

Communication- Receives concretized messages and gives clear messages to others (though often unclear pronunciation). He fails to achieve the right results. Verbal help is essential.

*Social aspect*- Has started to adapt to the group, but still needs improvement. Occasionally displays aggressive behavior with friends.

### 6. Conclusions and Recommandation

Childrens with ADHD have obsessive-compulsive behaviors. They write poorly, stay in class 3-4 times longer than their peers. Boys are more hyperactive and girls are more distracted.

Diagnosis is difficult when he/she is considered simply as a rascal or a brat andvice versa. ADHD is caused by a neuro-psychological reason and therefore should be treated by a psychiatrist. However drug treatment accompanied by psycho-educational and academic treatment gives beter results. The children affected by hyperactivity in schools they need positive evaluation and special work programme. To diagnose a child with ADHD, we need to look at his or her clinical background and family history of the disease. All children exhibit the common character of disorder, but treatment should be specific, as each individual is unique and has his/her own characteristics. In recent years, the number of adults with ADHD has increased and this comes as a result of carrying the disorder without treatment. Family history and the negative impacts of hyperactivity on the development of this individual's life should be assessed for the child's hyperactivity.

The psychologist has the task of advising the teacher and the parent, carrying out constant consultations with the child and providing information that will help these childrens to improve in all skills. The psychiatrist is responsible for the medical examination, evaluation of all data such as the characteristics of the disease; partition of tasks; communication with parents and teachers;

placement under treatment and the follow-up at the same time.

There is still a lot of work to be done with these children with respect to their treatment and education. Studies should be carried out regarding factors that cause it. Training and seminars for parents of children with ASD should be encouraged so that they acquire the necessary knowledge about the specifics of the disorder affecting their child, as well as the knowledge about the therapies that can be applied to help childrens affected by these disorders.

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