Multidisciplinary approach of the attention deficit hyperactivity disorder (ADHD) between hope and reality

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Abstract

Being a behavioral disorder in children, manifested by an attention deficit (incapacity to focus or to pay attention, regardless of the duration), impulsive behavior, excessive hyperactivity and difficulties in performing a task, the attention deficit hyperactivity syndrome (ADHD) has become a more and more frequent problem, affecting both pre-school and school children. Taking into account that if it is not discovered and appropriately treated, this disorder can significantly affect the social, educational or professional life, a team made of specialists, together with parents, medical professionals, teachers and social workers initiated a multidisciplinary approach, entirely correlated, in order to obtain a complete benefit. The details of this approach and the results obtained represent the object of this paper.

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Keywords: attention deficit, excessive hyperactivity, impulsive behavior, educational strategies, inclusive techniques

1. Introduction

Known as a neurobiological disorder defined by a degree of inattention (lack of concentration, distractibility) peculiar for the age and development stage it appears in, hyperactivity and impulsiveness, the attention deficit hyperactivity disorder (ADD/ADHD) (Green, & Chee, 2009) shows its first signs during childhood, but can persist even as the person reaches adulthood, and its symptoms can appear in any combination in school, at home or in other social situations. The hyperactivity/impulsiveness manifests itself through excessive movement and talking, impulsive decisions and emotional impulsiveness, the incapacity to anticipate future emotional reactions and failure to motivationally self-regulate one’s arousal, dependency on external motivation sources and disregard for the future. The restlessness/agitation decreases with age and becomes interiorized and subjective during adulthood. The relevant issues when it comes to inattention (Barkley & Cook, 2002) are: lack of perseverance when performing tasks/trying to achieve goals (incapacity to remain attentive and concentrated during uninteresting or boring activities), increased distractibility (Hall & Gushee, 2000) (reacting to irrelevant stimuli or to unimportant or irrelevant thoughts), difficulty in acting, resuming a task, and remembering one’s goal, low emotional self-control (Kopp, 1989). The cognitive and behavioral manifestations associated with ADHD (Döpfner, Schurmann & Frolich, 2007) vary depending on the child’s age and on the moment in which an assessment from the educational point of
There are at least 10 myths that proliferate misjudgments regarding ADHD:

1) it is just a manifestation of lack of willpower, since people suffering from ADHD are perfectly capable to concentrate on tasks if they really want to; 2) it is an issue of hyperactive behavior, or the result of not listening when someone is talking to you (Khan & Faraone, 2006; Southall, 2007); 3) it is a label for behavioral problems; 4) children suffering from ADHD refuse to keep still and do not feel like listening to their parents or teachers; 5) the brain of an ADHD afflicted person is hyperactive and needs medication in order to be appeased; 6) children that suffer from ADHD usually get rid of this issue as soon as they pass into adolescence (Jensen, Arnold & Swanson, 2007); 7) if a person was not diagnosed with ADHD during childhood, they can’t have ADHD as an adult; 8) we all suffer from certain ADHD symptoms; 9) any person with an average intelligence can surpass these problems; 10) ADHD does not affect a person’s life all that much; 11) a person can’t suffer from ADHD and another psychic disorder at the same time (such as anxiety, depression); 12) treating ADHD through medication can lead to long-term addiction problems or other health issues, especially when such medication is administered to children.

In fact, ADHD is a neuro-chemical problem that affects the management of neuro-cerebral systems (Bálint et al., 2009). It is a complex disorder that affects one’s capacity to concentrate, one’s organization, motivation and emotional modulation, as well as one’s memory and other functions (related to the management of the brain’s activities). An under activation of certain neural networks in the brain is typical for persons afflicted by ADHD, and the use of proper medication helps bolster these networks’ activation (Rader, McCauley & Callen, 2009). Chronic inattention symptoms, however, can cause serious and long-lasting problems when it comes to the learning process (McIntyre, 2005, Van Cleave & Leslie, 2008) and to the relationships with others (Barkley, 2010). ADHD affects people independently from their intelligence level and, if it isn’t diagnosed and treated (Evans, Morrill & Parente, 2010), it can leave its mark on one’s learning capacity, family life, education, social interaction and personal safety, leading, in its chronic form, to depression or anxiety (Barkley, 2010, Miranda, Presentation & Soriano, 2002; Sauve, 2006). In addition to its central traits, the ADD/ADHD syndrome can lead to a series of associated, secondary traits, such as: disorganization; poor social relations with brothers/sisters and children of the same age; aggressive behavior (Dopfner, Schurmann, & Lehmkuhl, 2004); low self esteem and deficient self-knowledge; self-stimulation behavior; daydreaming and absentmindedness (Millichap, 2010); coordination deficit; memory problems; persistent obsessive thoughts; inconsequence.

### 2. Methodological alternatives

The relatively high number of children with hyperactivity and attention deficit problems and their difficulty to adapt and integrate during the early school years has lead to the necessity to find quick, effective solutions for these children, as well as their parents. If undiagnosed and untreated, this disorder can lead to serious social, educational or professional deviances. This is why a team of specialists, consisting of psychologists, doctors, kiotherapists, ergotherapists, support teachers, social assistants, and parental counselors, together with parents, other medical personnel, teachers and social activists has initiated an entirely correlative multidisciplinary approach to this issue – from a medical, psychological and educational point of view – in order to achieve a through-going efficiency.

This experiment went on for 18 months, and was addressed to pupils from 8 elementary schools and their parents. The objectives were: a) **from a medical point of view**: to identify the children suffering from attention deficit hyperactivity disorder (ADD/ADHD), concentrating on: the predominantly inattentive type (ADHD-I), the predominantly hyperactive-impulsive type (ADHD-HI) and the combined type (ADHD-C); to establish personalized drug treatments. b) **From a psychological point of view**: to implement behavioral techniques and strategies in order to improve the ADHD afflicted persons’ attention significantly; to diminish disruptive episodes, by applying personalized intervention programs; to reduce the negative impact of problem behaviors such as impulsiveness and hyperactivity; to offer psychological counseling for children and parents. c) **From an educational point of view**: to educate parents and teachers with regard to the typical behavior of ADHD afflicted children; (putting together trainings regarding techniques and strategies meant for working with ADHD afflicted children, for their parents and elementary school teachers); to optimize the ADHD children’s academic performance; to find the most effective strategies that teachers can apply in class in order to improve hyperactive children’s cognitive behavior.

Another aspect of the multidirectional and multidisciplinary approach was to offer varied services for ADD/ADHD children, in view of improving their inadequate behavior: speech therapy, kinetotherapy, ergotherapy,
cognitive behavioral therapy, curricular learning, club activities, educational and parental counseling, social and medical assistance.

The ADHD intervention for teachers aimed: to structure the activities and school environment as much as possible (defining the rules and the consequences of not complying with them clearly, creating daily schedules and following them rigorously, etc.); to minimize distractions (strict space allocation); to use special attention fostering techniques; to use certain behavioral management techniques; to display an optimistic and encouraging attitude, in order to counteract the feelings of inefficiency, discouragement and low self esteem in these children; to set some simple tasks that the child can solve successfully, thus increasing his self-trust; to give feedback for undesirable behavior; to identify and consistently offer rewards and praise for desirable behavior; to communicate frequently and regularly with the parents; to concentrate on the positive aspects of an ADHD child’s interaction; to appreciate the child’s spontaneity and creativity and to use these qualities in order to help the affected child and the class progress.

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From the behavioral point of view, the intervention had a specific set of aims: to develop organizational and scheduling abilities; to develop distraction minimizing abilities; cognitive restructuring; anger management; to develop social and emotional abilities that can be achieved by applying behavioral techniques.

The stages of the behavioral intervention were: redefining the causes of ADHD for the child and his/her family, in order to guarantee a better adhesion to the recommended treatment; separating the child’s problematic behavior from his/her identity, and concentrating on positive behavior and on the special abilities that the child has; rephrasing the scientific explanation in a coherent manner in order to clarify the causes and mechanisms of the problem; substituting the behavior’s „labeling” with a real, coherent explanation of the behavior for the parents, offering them constructive means to approach the problematic behavior and suggesting interventions that help them adapt effectively to the child’s problem.

3. Results

From among the efficient strategies applied by the teachers in class in order to improve the hyperactive children’s behavior, the best received and most effective were: a) Modifying and adapting the classroom environment: creating and maintaining a stable, predictable, structured school environment; communicating the expectations related to school requirements effectively (homework, other tasks, independent work); communicating instructions effectively; organizing the transition from one type of activity to another or from a task to another; organizing the classroom (desks and other materials); the ADHD child’s position in the classroom (desk position). These modifications and adaptations of the classroom have proven essential for a more efficient work with ADHD children, but they have also proven beneficial for the entire collective of pupils. b) Adapting the school tasks for ADHD children. The special traits of ADHD children have determined the teachers/professors to apply modifications in relation to school tasks, regarding the task difficulty, that was adapted to the pupil’s current level of performance in order to avoid feelings of frustration on the child’s part, regarding the task dimensions and the feedback given by the teacher to the pupil regarding the task completion. c) The permanent use of feedback during the tasks’ performance, meant to guide the children’s correct execution of tasks, has been a central balance point for the educational interventions.

4. Conclusions

The fact that it was agreed upon together with the parents to implement, follow and comply with certain practical intervention means such as:

- Following a golden rule in the child’s disciplining process: the consistency of the teachers’ as well as the parents’ requests.
- Ignoring and redirecting the child’s permanent movement and action, as often as possible, by giving him an object to hold in order to concentrate better.
• Providing an environment that helps the child concentrate on the task (seating the child in the first desk, not close to the window, with no unnecessary objects on the desk, etc.).
• Practicing sports (swimming, martial arts) in order to increase the attention capacity, to foster a better movement control, to raise self esteem and help with relaxation.
• Using positive reinforcements (using rewards for positive behavior only, and using specific praise, as opposed to general praise, so that the child’s feelings are emphasized).
• Writing a behavior contract in order to encourage positive behaviors or to eliminate unwanted ones, especially for older subjects or adolescents.
• Using a pre-established signal associated with stopping unacceptable behavior.
• Using clear and explicit commands (specific).
• Using phrases with hidden messages that can be completed and rewarding the desired behavior, while also mentioning the unwanted behavior at the same time.
• Giving alternatives that allow the child to make his own decisions, and to understand that if he does not do it, someone else will do it for him.
• Writing a note when the aim is to communicate something important and reaching a common ground, or in order to determine the child to do what he usually forgets to do.
• Using the „I” when the consequences of the child’s behavior intersect the adult’s wishes.
• Costs and reaction to costs, based on the fact that it is always a lot harder for ADHD children to lose something they have, than to work in order to obtain something.
• Ignoring the child’s behavior when it is not very upsetting and can be tolerated.
• Learning a new type of desirable behavior, by letting the natural consequences appears.
• Using “grandma’s rules” that require for phrases and requests to be made using positive terms, without introducing negations or interdictions.

Using punishments; their application must follow certain rules: they must be short, consistent and immediate in order to eliminate the non-corresponding behavior; they consist in withdrawing the child’s privileges for a certain amount of time. The time-out, that consists in taking the child away from the context that enhances his disadaptive behavior (the new location should be free from enhancements, and the time — out should last 1 minute for each year of age) should be used as an approach to behaviors such as: making faces, becoming upset and hostile, calling names, pushing the other children, spitting, swearing, throwing or destroying toys, talking back, scratching, aggressive yelling, hitting or pinching others, throwing objects at others, being rude to parents, hurting pets, crying, biting, has lead to positive results in almost all the 187 subjects.

By observing the principles of operative conditioning like: reinforcements, punishments, extinction, control and stimulus differentiation, by taking into account that which is behind aggressive behavior (emotional self-regulation, a deficit of social and cognitive abilities, a problem-solving deficit), by controlling aggressive behavior through observation, understanding and intervention, by performing a behavioral, cognitive and medical assessment, by using ADHD evaluation procedures based on DSM, but above all, through dedication to the goal of making the ADHD child behave adequately in his cognitive and active endeavors, we achieved significant results. The modifications we observed in the children’s personalities were also pleasing. Here are some of them: a) from a cognitive point of view: perceiving information quickly, correctly and completely, thanks to exercising the children’s active and empathetic listening and their communication rhythms; learning specific techniques for temperamental and characteristic structures in a personal way, alone or together with the teacher; assimilating and using notions, judgments and reasoning supported by clear, precise arguments that have been adapted to the child’s understanding level, but that comply with universal laws; successfully using specific ADHD learning algorithms; b) from an emotional point of view: opening up for new relationships and communication; freely expressing positive and negative feelings such as: safety, attachment, optional security, respect and valorization, collaboration, happiness, hope, satisfaction, the need to affirm oneself and to be acknowledged, or to confirm one’s potential, acceptance, happiness to feel accepted and not isolated, contentment triggered by understanding, security and safety in relationships; the satisfaction of a dialogue centered on the pupil; increased self-esteem and self-trust; c) from a behavioral point of view: increased reactivity, competitive and cooperative behaviors that made the children feel talented and creative; a correct relationship with reality, allowing them to hear the „true” truth about themselves and their creation; exercising a tolerant behavior, patience, group discipline and the roles and statuses imposed during the educational process; exercising decision making and assuming responsibility.
By using an algorithm based on all these discussions regarding a certain child’s difficulties, the special needs coordinator created an “individual education plan”, comprising:

- A special schedule for each day, week and for the entire duration of the program, for each child considered to have special educational needs.
- An in-depth assessment of individual highs and lows, performed by all the specialists in the school interacting with the child, keeping in mind any relevant observations regarding the child’s home behavior received from the parents.
- Recommendations and complementary support from the various specialists (speech therapists, psychologists and other specialists) that consider the child in need of special, complementary assistance.
- A time limit for the assessment of the child’s progress.

The intervention was based on a unified conception that was individualized at the same time. The project is still under way, with new subjects of discussion, such as curriculum issues and adaptation, and we are working on the appropriate regulation for real efficiency on the way.

Acknowledgment: This work was partially supported by CNCSIS-UEFISCSU, project number 882/19/01/2009, PNII - IDEI, code 471/2008 Program Exploratory Research Project, Adaptarea curriculară - instrument fundamental în educația inclusivă.

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