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ADHD – GENETIC OR CULTURAL CONDITIONS?

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Abstract

This article discusses the attention deficit hyperactivity disorder (Attention Deficit Disorder) with attention deficit disorder. The publication contains an attempt to explain and characterize the hyperkinetic team. The issues in it concern the causes and effects of the occurrence of the attention deficit hyperactivity disorder in children. The methods of functioning of a child with ADHD in the school and family environment are also presented. The author presents suggestions for helping students with ADHD as well as forms of cooperation with their parents. The article indicates positives resulting from the student's statement of a hyperkinetic group. The author does not focus only on negative features of a given phenomenon, but presents them in a diversified perspective, she tries to see the values reflected in the culture of everyday life.

Introduction

Nowadays due to the increasing phenomenon of change, progress, technological development every functioning member of a particular community is forced to make decisions and acquire a skill of finding oneself in a presented, formed reality. The dynamics of the phenomena results in the number of individuals who are socially unfit, incapable of managing on their own, as well as the ones having difficulty with functioning in the present reality. It is also visible that parents, teachers, tutors and educators encounter numerous development disorders amongst children. The recognition of disorders and dysfunctions contributes to the atmosphere of trust as well as the introduction of aid activities in the optimal stage, which affects beneficially on a child's

development. Previously, disorders and dysfunctions in development were either not noticed or considered as negative, stemming either from intentional behavior of a child or inappropriate upbringing applied by parents. Noticed problems regarding behavior and functioning in family, kindergarten or school environment were treated as effects of intentional, deliberate and planned action of a child. There were situations when a student having difficulties with social adjusting did not acquire any assistance, which resulted in social marginalization. Due to inadequate and socially disapproved child's behavior also parents and family environment started to be the source of educators' investigation and the basis for assumptions on the reasons for a particular, frequently asocial actions of a student. Family coping with a situation that it was not able to

deal with on its own was existing in the atmosphere of loneliness, misunderstanding, and frequently social ostracism.

Due to progress, rapid development of science and new discoveries in social, humanistic and medical sciences the situation of individuals with disorders, deficits and health problems has changed dramatically. Disorders regarding development, behavior and many others have been named, classified and characterized, which allowed to diagnose them in appropriate way and finally treat them. Currently, for a couple of years the development has been noticed in recognizing and diagnosing of ADHD. It is observed that diagnostics is searched for in a family environment when it comes to detecting as well as recognizing ADHD, when a child evinces problems in upbringing, unwillingness for obeying orders, excessive mobility, aggression, agitation. The ones taking care tend to forget about the influence of family, environmental factors as well as the role of media affecting the functioning of a child. Parental negligence, absence of one of parents in the process of upbringing, the lack of warmth, love, support, security and peace, as well as constant shortage of spare time and pursuit for set aims have disadvantageous influence on a child's development. Family environment filled with anxiety, aggression, addicted personalities do not contribute to the creation of appropriate patterns of social life. In order to shape full, mature individuals that are conscious of themselves it is necessary to assist the family environment in being able to manage in the present reality, as well as pass the knowledge and raise the awareness amongst parents on the necessity of undertaking actions in upbringing that will generate perceivable effects in the behavior of a young man.

Definitions of ADHD

Common and frequently applied in diagnostics abbreviation ADHD refers to "Attention Deficit Hyperactivity Disorder". The name ADHD was established in 1998 by the American Psychiatric Society and is interpreted as attention deficit hyperactivity disorder (attention deficit). Another name suggested by the World Health Organization in the international classification of diseases in 1992 is "Hyperkinetic Disorder". Attention deficit is not a new condition, since it has been functioning under various names for 143 years and still generates interest of doctors and psychiatrists

(Wolańczyk, Kołakowski, 1999). Currently, it is a classified condition with criteria determined for diagnostic aims. Predestinating features indicating the possibility of ADHD presence are the symptoms regarding disorders of attention, i.e. the tendency for being unable to focus one's attention on a set task, excessive impulsivity and mobility (Wolańczyk, Kołakowski, 1999, p. 14). Both presented symptoms and characteristic features of the condition might appear in diversified form, depending on the development stage of a child their intensity may increase or there may be present forms of undesired behaviour that have not been seen before. Individuals coping with ADHD vary, therefore the condition itself ought to be diagnosed and studied individually (Wolańczyk, Kołakowski, 1999). In the course of their research American psychiatrists distinguished three subtypes of ADHD. The first of them is the subtype with the prevalence of concentration disorders, which shows as problems with focusing attention on one activity. Students with this subtype of ADHD have problems with meeting the demands of curriculum, cannot focus on a planned task and complete it, which results in information gaps and the inability to apply information in practice. The lack of assistance may result in ending education pre-maturely. Another distinguished subtype of ADHD is characterized with the prevalence of attention deficit. Children diagnosed with this subtype tend to move excessively in uncontrolled way, do not tire easily, and need to change place constantly (Opolska, Potempska, 1998). The last and most frequent subtype of attention deficit is a mixed type, i.e. "two in one". Children show the physical anxiety, control their impulses weakly, and have symptoms of disorders in attention. It is observed that boys more frequently show the mixed type, whereas girls the one with the disorder in attention (Wolańczyk, Kołakowski, 1999).

The symptoms of ADHD

The symptoms associated with the occurrence of attention deficit disorder amongst children can be noticed while a child enters an unknown environment, i.e. as a result of kindergarten classes as well as during the functioning of a student in school environment. The symptoms of ADHD are observed in the early childhood between the ages of 5 and 7, and frequently even before the age of 2. The characteristic features of

ADHD in form of decreased demand for sleep, eating disorders, irritability observed at infants may indicate attention deficit (Kołakowski, Wolańczyk, Pisula, Skotnicka, Bryńska, 2007). Also hyperactivity, quick moving from place to place while crawling define the condition. In case of kindergarten children it is observed that they repeat actions many times and treat failures very emotionally losing temper, and not being able to cope with emotions. When playing they prefer running, racing, frequently participate in dangerous or risky activities, which results in injuries and broken bones. Both at kindergarten and school ADHD children refuse to obey set rules and regulations, they are unable to subordinate to needs of a group. Their reactions are immediate, full of emotions and aggression. At school age ADHD children do not follow commands, rush to answer even if not asked, do not manage to keep up with taking notes and frequently stay in the same grade for another year. Students with diagnosed attention deficit experience the feeling of isolation, separation from the rest of a group. Other children avoid contact and are unwilling to get involved in interactions with students whose behavior is unpredictable and frustrating. It happens that ADHD children grow out of hyperactivity, yet emotional problems, difficulties in learning and relationship stay. Adolescent ADHD students tend to behave in ways characterized with the symptoms of ADHD: interfering into conversation, destroying objects, impatience while expecting a reward, difficulties in foreseeing consequences of one's actions and following instructions, difficulties in listening and remembering significant information (Wolańczyk, Kołakowski, 1999). There also appear difficulties in constructing coherent speeches, frequent distractions from the main topic, trouble in using prepositions of place (on, in, next to) as well as sequencing words (after, before), breaking the rules of conversation, too loud and prompt speaking, dyslexia, dysgraphia, dyscalculia, dysortography, disorders in visual, auditory, mobility analysis, integration. The above presented symptoms cause the complexity of issues regarding ADHD. It is of significance to comprehend the condition and perceive it as well as individuals diagnosed with it from the perspective of willingness to change the behavior, but not always being able to apply appropriate process and take socially accepted decision.

ADHD – diagnostics

As regards the help for a child presenting typical ADHD symptoms, it is necessary to undertake diagnostic procedures. The process involves the systematic observation of a child in order to verify undesirable symptoms and the possibility of introducing aid procedures. The first of a number of diagnostic activities bases on a doctor's interview with parents on a child's development, its behavior, which disturbs normal functioning at home, both towards them as well as towards siblings. It is frequent that care givers of children with attention deficit disorder take initiative to consult psychological counseling or seek for school councilor's advice since they observe the regular occurrence of alarming symptoms which, as it seems, may not be eliminated without the help of specialists. As a result of a preliminary diagnostics and confirmation of the presence of alarming symptoms it is necessary to introduce the procedure of deepened diagnostics as well as arranging an appointment at a psychiatrist's who is qualified in issuing opinions regarding the health of a patient. In order to apply the process of deepened diagnostics it is also necessary to contact the teachers and tutors of a student so that forms of behavior that prevail in school environment can be verified. A conversation with a tutor who has known a student for over half a year, who observes a child in various situations and doing various tasks will certainly provide a number crucial information to introduce aid procedure. In case of a set procedure and diagnostic also the cooperation between institutions is of significance as well as co-working of family and school environments (Barańska, 2007). As educational and upbringing institution, school participates in the diagnostic process of a student supplying documents and opinions necessary to provide a child with assistance and the possibility of support in the most appropriate form. By taking actions regarding further diagnostics it is important to consult medical specialists in order to conduct pediatric and neurologic examination to eliminate the damage of the central neurological system, lead poisoning, hyperthyroidism, to check up hearing and sight. It is also important to conduct the observation of a child, optimally during at least five sessions at one and the same doctor's. A conversation with a patient without the presence of the parents may also contribute a lot to the diagnosis itself. Further on, physical activity of a child ought to be examined by using actometry, podometry and stabilometry. They serve

the electronic measurement of the activity of a hand, foot or stability conducted while a patient is sitting on a special computerized chair. Actometry, i.e. measuring the activity of a hand, is the most popular. Another method of examination is an attempt to measure the attention of a child by applying a computer constant attention test, which involves pressing a button whenever a patient notices two figures of the same kind. Scales and diagnostic questionnaires are also effective diagnostic tools (Conners questionnaires and the ones from Child Behavior Checklist group) as are psychological tests which test intelligence, reaction ability, mobility, speech, ability to solve problems. Also testing a child with the use of questionnaires based on the criteria of American Psychiatric Society and the World Health Organization are effective when it comes to the realisation of a diagnostic procedure (Wolańczyk, Kołakowski, 1999).

Functioning of ADHD child in school environment

ADHD symptoms occur during the realization of tasks and the functioning of a child in new, unknown situations. School is a place that a child is unfamiliar with which stimulates the appearance of dissatisfaction and enhance the symptoms characteristic for ADHD.

The functioning of a ADHD child in a school group is complicated due to the requirement to obey the rules like: staying at the desk for 45 minutes, listening attentively to a teacher, dealing with one and the same task for a longer period of time, remember important pieces of information and at the same time behaving well, which means controlling one's actions. The presented typical school tasks seem to impossible to fulfill for an ADHD student (Hanć, 2009). These are the reasons why frequently ADHD children are offered individual learning, which is a seemingly favourable solution since school is a place not only meant for acquiring information but also the rules of coexistence with other people, comprehension of social situations and cooperation. Individual learning isolates a child from its peers disturbing the correct social and emotional development. It forces parents to stay at home with their child. In order to provide a child with appropriate conditions for learning groups ought to be decreased to 10–15 students, when it becomes of integration character. When it comes to fulfilling teacher's demands it is necessary

to get familiar with students, not to punish them for symptoms of the condition that do are unintentional, so that students do not get discouraged to attend school and do not acquire feedback lowering their self-esteem. A teacher ought to contact parents frequently without blaming them for a child's behavior. It is recommended that an ADHD student should be seated in the first row next to a peaceful classmate, far from any distracting factors. In order to communicate with a student teachers should use short and clear commands. It is helpful to highlight the most important matters and information, and then check if a student has noted down instructions for homework properly (Nartowska, 1986). In case of a child with hyperactivity it is a good alternative to ask children to perform duties it may help with, e.g. fetching chalk, cleaning the board, distributing handouts. It is necessary to establish the rules of student's physical activities letting him/her move near the desk without standing up if not allowed (Wolańczyk, Kołakowski, 1999), while strictly forbidding any disturbing behaviour during a class, talking and aggressive behaviour towards other students. In case of inappropriate behaviour teacher's reaction ought to be prompt, effective, just, fair and verbal (Branowska, 2010).

Cultural conditioning

In this work the author presents the notion of culture within pedagogy of culture. Here, the notion of culture is defined as the aggregate of values and spiritual sphere. Whereas its subject is, "the process of education concentrated on the encounter of a human with culture goods, which leads to the interiorisation of values presented in it" (Gajda, 2006, p. 17). A creature of culture is an individual taking part in forming and experiencing subjective values. The notion of education in pedagogy of culture is presented as the preparation for creative activity in cultural life, getting acquainted with values and active participation in creation of culture by experiencing and enriching present reality with creation (Gajda, 2006). The pedagogy of culture in contemporary perspective takes into account transformations occurring in reality and allows broader definitions of the notion in global perspective. The most extensive transformation in global culture happened due to mass media and hypermedia, which resulted in creation of dominating popular culture called mass culture (Gajda, 2006).

The impact of existing and broadly popularized popular and mass culture is observed by educators, tutors and psychologists. When it comes to transferring content and information it is a dominating source of passing data and creating virtual reality. It is necessary to educate a child to be able to search for and select passed contents properly so that it can function appropriately in popular culture. The role of correctly selected mass media contributes to the development of mental processes, emotional and cognitive spheres. A child that acquired skills to take advantage of media resources is able to apply them effectively to gain knowledge, information, shape positive patterns, develop memory, language abilities, as well as entertainment. Using mass media may, however, lead to negative consequences like eye diseases, allergies, problems with skeleton or nervous system (Izdebska, 2007).

Popular culture affects the functioning and behavior of an ADHD child. Its use of popular culture items ought to be supervised by parents regarding the length of time and content. It is important to educate children to search for issues of interest, present to them the effects of inappropriate use of mass media, and abilities to use mass media to acquire positive effects beneficial for a child as well as other members of a society it is a part of. Cultural conditioning is of significance regarding its influence on ADHD condition. Selected aggressive, inappropriate mass media enhance the symptoms of ADHD. However, it ought to be emphasized that ADHD is not culturally conditioned. Culture affects child's behavior and actions, yet it does not cause the condition.

Genetic conditioning

The causes of ADHD are believed to have genetic conditioning, which means that hyperactivity disorder is inherited. Amongst factors affecting the development of a foetus during pregnancy in a negative way are the following ones: alcohol, drugs, medicine as well as nicotine. These substances have significant influence on the development of a foetus and may cause a number of growing anomalies (Myśliwczyk, 2010). When the condition has been recognized in a family, the likelihood of its presence at another member of the family is five to seven times bigger than in case of children in families where the problem has never existed. When one of parents suffers from attention deficit disorder the chances

of the condition to appear rise to 50% (Kołakowski and others, 2007). As a result of the research it was found out that frontal lobes of ADHD children as well as their connections with other brain structures work worse. Areas of the brain responsible for hearing and sight associating are crowded with numerous pieces of information coming from the outside, which a child is unable to classify instantly and reject the irrelevant ones. People with ADHD tend to have specific patterns of brain work, which regards mainly the work of pre-frontal cortex of both cerebral hemispheres, deep structure, corpus callosum and cerebellum. The research has proved that the existing patterns cause characteristic symptoms. Additionally, individuals diagnosed with the condition have a distorted balance between two basic transmitter, namely noradrenalin and dopamine. The disturbance in the system of dopamine result in problems with focusing on one activity, and inability to pick information from the outside world and segregate it. In cases of noradrenalin shortage an individual's mind cannot foresee a danger and avoid activities associated with it, whereas in the situation of its excessive amount body is constantly agitated. The functioning of an individual is also affected by the shortage of serotonin which are present in case of impulsive individuals and affect the regulation of mood (satisfaction, proper sleep patterns, positive thinking, respecting deadlines, controlling behavior) (Świdarska, 2007).

The forms of helping ADHD children

Having conducted diagnostic procedures a child, as well as its parents, should be offered help adequate to a particular disorder. In case when hyperactivity is a prevailing factor it is recommended to work on the change in the environment and a child's behavior. It is important to instruct parents, tutors and teachers on the comprehension of the problem and ability to handle the disorders. Application of pharmacotherapy supports the process of introducing behavior that is socially approved of and may appear to be a supporting element in learning appropriate reactions and actions by a child. When the main role is played by attention disorders, it is important to apply exercising cognitive functions (memory, control) as well as focusing attention. Here also pharmacologic treatment is suggested. If a child's behaviour is full of aggression, behavioral therapy and sociotherapy seem to be adequate in order to modify

undesired behavior. It is also helpful to apply individual, family therapy in order to reduce aggressive behavior as well as pharmacotherapy depending on a psychiatrist recommendation (Chrzanowska, Świącicka, 2006).

In case of school failures compensatory classes are recommended and the ones in individual counseling as well as reeducation (Wolańczyk, Kołakowski, 1999). As a rule pharmacotherapy appears to be effective and terminates undesired behavior. Its application is recommended when the symptoms are so strong that they make a child's life difficult and other forms turned out to be ineffective. Recommended medication influence the symptoms increasing in brain substances called neurotransmitters or brain hormones: noradrenalin, serotonin and in smaller extent dopamine, i.e. the substances which have too weak influence. These are the means with stimulating, invigorating and activating, not calming influence. There seems, however, to be a kind of risk that some heart problems might appear while applying pharmacotherapy, therefore ADHD children ought to have their blood pressure taken, as well as pulse and ECG examination regularly. Pharmacologic treatment is commonly suspended for the holidays period, and resumed after it at the beginning of the school year when necessary (Wolańczyk, Kołakowski, 1999).

ADHD not that scary

Despite all the difficulties associated with upbringing children with hyperactivity disorder one mustn't forget that there are positive sides and advantages such children possess. Individuals with the condition tend have numerous talents and abilities. Most of them has high IQ. One of the most imminent example being Albert Einstein, a brilliant, illuminated mind whose eagerness, energy and innovative thinking made him ahead of his times. Other people with hyperactivity disorder are characterized with vivid and rich imagination, ability to create literary work, e.g. Hans Christian Andersen, a writer, or create unusual works of art, like Pablo Picasso or Salvador Dali. ADHD adults are sensitive people who deeply sympathize with hurt people and are always ready to help. They characterize with abilities for sympathy, empathy, which they perform in their attitude free from aggressive criticism. Due to their negative experience from childhood caused by continuous disciplining and being told off they tend not to assess and be understanding while facing mistakes and failures of

others. Imagination and creativity are the features accompanying them throughout their lives. ADHD individuals prefer out of the box thinking, are excellent at doing creativity tests. Their reasoning is rapid, innovative and remarks are original. It is not uncommon for them to take risk, enjoy challenges, new situations, places. They tend to introduce alterations to their lives frequently. They easily adjust to unusual conditions and are flexible towards everyday difficulties, which is indispensable these days. ADHD adults, if only manage to struggle through lower steps of professional career, turn out to be splendid managers, mentors and professors, surrounded with assistants eager to introduce their innovative ideas (Hanć, 2009). As managers they enthusiastically welcome innovative proposals, and ideas of the others and put them in practice, which results in positive effects for a company in longer run. They are always willing to act, full of energy. Each day they undertake numerous actions never ceasing to be full of stamina. Tiredness is the feeling that is strange to them. Although, attention deficit decreases in time, they do not lose the will for undertaking new tasks, including sports ones. They do enjoy these activities at the same time expressing themselves, finding satisfaction and relieving other constraints stemming from hyperactivity disorder. It will suffice if we mention here successes of Michael Jordan or Alberto Tomba. These individuals are perceptive observers, good at estimating relations between people and objects in their own individual, unique manner.

Conclusion

Summing up the above ponderings on the causes of the condition one may state that ADHD is a disorder that is conditioned genetically. As a result of the occurrence of this condition in the family the frequency and likelihood of inheriting it increases significantly. It is worth verifying and diagnosing alarming symptoms in order to improve the life quality of a child and its functioning in society. Leveling the symptoms and applying adequate forms of help seem to be of crucial significance. Using mass culture and mass media in excessive and inappropriate way influences negatively on a child's functioning and deepens symptoms characteristic for ADHD. Culture and cultural conditioning affect a child's behavior, so bearing this in mind it is worth applying the procedures of safe and appropriate use of mass media.

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