

## AUTISTIC DISORDER IN CHILDREN

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**Abstract:** Dysfunction of social interaction and verbal and non-verbal communication, repetitive and restricted behavior are the symptoms for disorder of neural development. This disorder of neural development is also known as autistic disorder. Autism affects information processing in the brain changing the way how nerve cells and their synapses connect and organize. It is unknown how it happens.

The symptoms in children appear before the child is three years old. In the first two years parents usually notice the first signs of autism. More precisely the first symptoms can be shown at the age of six months. Some autistic children develop normally, and then regress. These symptoms continue through adulthood, often in a muted form.

Early interventions, behavioral, cognitive or speech therapy can help autistic children to gain self-care, social, and communication skills. Not many children with autism live independently after reaching adulthood.

In the Republic of Macedonia the number of children with autism is constantly increasing. We have efficiency of effective training teachers programs for work with autistic children, need for teacher's ability to perform interventions, and need of effective and inclusive model of education.

**Keywords:** autism, interventions, teachers

### WHAT CAUSES AUTISM

After the researcher's rejections of the emotional causes of autism, it became clear that there must be a biological basis in the disorder. There are numerous significant biological causes:

1. Autism is often accompanied by other neurological symptoms;
2. Autism is often associated with other learning disabilities;
3. Autism is often accompanied by epilepsy;
4. Mothers of people with autism often have difficulties during pregnancy;
5. Other conditions such as viral infections, metabolic conditions and genetic abnormalities are closely related to the autistic spectrum of disorders.

Strengthened by this theory, researchers were confronted with the opportunity to try to find the cause. However, it became clear that it would be unbelievable for a single biological cause to cause autism. Finally, there are many people who do not have any apparent medical condition that would be likely to cause the disorder and who have no learning difficulties and are not epileptic.

However, when studies were conducted on a group of children with autism, the researchers noted that a number of known types of medical conditions were found when compared to groups of children who were not diagnosed as autistic.

### **WHICH PARTS OF THE BRAIN ARE AFFECTED**

The presence of a variety of techniques used to obtain brain imaging, including computed tomography (CT), scans, and magnetic resonance imaging (MRI) in several studies explain abnormalities in different parts of the brain. The following areas are set aside to pay special attention:

- abnormalities in the frontal lobe areas in the brain responsible for planning and control;
- abnormalities in the limbic system-part of the brain responsible for emotional regulation;
- abnormalities in the brainstem;
- brain chamber or in the cerebellum - that governs motor coordination.

What this research shows is that in many cases anomalies of the brain are associated with people with autism. Brain research found that between 30% and 50% of children with autism had abnormally high levels of serotonin in the blood, a chemical substance responsible for transmitting signals in nerve cells.

### **HOW IS AUTISM DIAGNOSED**

There are various diagnostic systems used in the classification. Most often, clinicians base their ICD-10 criteria by the World Health Organization or DSM-IV criteria used by the American Academy of Pediatric and Adolescent Psychiatry. Contrary to previous systems, it may have been removed from the suspicion that it has a high degree of response to the current criteria used in both systems. The UK has a general intention to use the ICD-10 system. Many local authorities in the UK use the CHAT scale (autism control checklist for a child encouraging, developed by Baron-Cohen, Alen and Gillberg, 1992) for screening autism for 18 months. This is a set of 9 "yes / no" questions asked by parents. Studies have shown that

this test reliably reveals the majority of children with real autism.

Other local authorities will use different techniques for diagnosing autism at pre-school age. This includes a Program for the diagnosis and observation of autism (ADOS, Lord et al., 1989) - This is a developmental test that involves the researcher in interaction with the child for 20 to 30 minutes. Eight tasks have been carried out to certain known behaviors. Diagnostic interview for autism (ADI, le Couteur & Rutter) is a core supplementary program supplementing ADOS. It takes 1-2 hours to complete the interview. Childhood autism rating scale (CASR, Schopler, Reichler, DeVillis i Kock, 1980) - This test is carried out using direct observation of the child and includes 15 scales (for example: human relations disorder, narcosis related to inhuman objects, etc.). Each has 7 potential points (from normal to strong).

Wieland - is a general rating scale used as the basis of an interview, which gives an overview of human capabilities. It takes 20-60 minutes to complete the scale. E2 - This is a diagnostic checklist that contains a number of questions. The completed form is sent to the San Diego Institute of Autism Research where it enters large research databases and compares it with previously collected data. This shows the weight of autism compared with their case data.

#### **DSM-IV DIAGNOSTIC CRITERIA FOR AUTISTIC DISORDER**

Total of 6 (or more) points of (1), (2) and (3) with at least two of (1), and one of (2) and (3)

1. Qualitative disorder in social interaction manifested by at least two of the following:
  - a. Noticeable disorder in the use of multiple non-verbal behaviors such as eye-eyed gaze, facial expression, body holding, gestures for regulation of social interaction.
  - b. Lack of development of peer relationships that correspond to the developmental level.
  - c. Lack of a spontaneous need to share satisfaction, interests or success with other people (eg lack of demonstration or attention to objects of interest).
  - d. Lack of social or emotional reciprocity.
2. Qualitative communication disorders, manifested by at least one of the following:
  - a. Delay or total lack of spoken language is not accompanied by an attempt to compensate for alternative ways of communication such as: gesture or mimicry.
  - b. In individuals with preserved speech significant disorders in the ability to initiate or accept conversation with others.
  - c. A lack of a different, spontaneous apparent play or a social imitative game that suits the

developmental level.

3. Restricted, repetitive and stereotyped patterns of conduct, interests and activities manifested by at least one of the following:

- a. Preoccupation with one or more stereotypes, limited interest schemes that is abnormal in intensity or focus.
- b. Inflexible attachment to specific non-functional routines or rituals.
- c. Stereotypical and repetitive motor manners (for example: trembling and bending of the hands and fingers or complex movements of the entire body).
- d. Constant preoccupation with parts of objects.

Delay or abnormal functioning in at least one of the following areas with duration of up to 3 years:

1. Social interaction;
2. Speech used in social communication;
3. Symbolic or imaginative play.

The disorder is not better compared with Rhetts disorder or with disintegrative childhood disorders.

The diagnosis is difficult for a doctor with limited autism training because the disorders of the disorder vary greatly. Finding a specialist or diagnostician with experience in autism is very important. Ideally, the child should be assessed by a multidisciplinary team involving a neurologist, a psychologist, a pediatrician, a speech therapist, a pedagogue, or other professionals with autism knowledge.

### **TEACHING AUTISTIC CHILDREN TO ACHIVE SUCCESS**

Good teachers help every child to achieve success. When it comes to autistic children structured nursery school, experienced teachers, teaching good manners and good behavior at the dinner table from the early age is needed for achieving success. Children with autism need structured days. Teachers who know how to be firm and gentle at the same time are the best teachers for work with autistic children.

For the early age of 2 1/5 and 5 experiences with autism suggest that structured day is the best way for teaching autistic children. For example 45 minutes of one –to- one speech therapy five days a week. A hired nanny for three or four hours a day for playing ("turn taking" play activities) is another possibility for achieving more success. And gather meal time with good manners and good behavior. Personal story reveals that the only time for being allowed to go back to autistic behavior is one hour rest after lunch time. Structured day is the

way where the brain of the autistic child is kept connected to the world.

### **STRATEGIES FOR TEACHERS - DEALING WITH AUTISM**

- Many children with autism are visual thinkers. They think in pictures. Their thoughts are like videotapes. Thoughts are running through their imagination. Their first language is pictures. Words are like their second language. Nouns are easiest words for learning because children with autism can make pictures in their mind of the word;
- Children with autism have problem remembering sequences. That is why it is best to avoid long verbal instructions;
- Many children with autism are good at drawing art and computer programming. Their talents should be appreciated, encouraged and deeply developed. Talents can be shaped into the professional skills. Those professional skills can be used for employment of people with autism;
- Very often autistic children have problem with fixation on one subject. Best way to deal with fixations is to use them for school work;
- Concrete visual methods are the best way to teach math and number concepts. Math toy can help autistic children to learn numbers. For example set of blocks with a different length and different color for the numbers. With them they can learn how to add and subtract;
- Some autistic children have problem with motor control in their hands. This problem can frustrate the child. Best way to deal with that is to let the child type on the computer. Typing on the computer is easier;
- Some autistic children can learn reading easy with phonics and others by memorizing whole words. Children with lot of echolalia will learn best with flash cards and pictures books (words are associated with pictures). It is very important for the picture and printed word to be on the same side. While teaching nouns the child must hear the pronunciation of the word and see picture and printed word simultaneously;
- Children with autism can have problems with noise and unexpected sounds. They need to be protected from sounds that hurt their ears. The fear of a dreaded sound can cause a bad behavior. If a child cover his ears it is an indicator that a certain sound hurts his ears;
- Some autistic children have a problem with visual distractions and fluorescent lights. They can see the flicker of the 60-cycle electricity. The best way to avoid this problem

- is the best to place the child's desk near the window, and avoid fluorescent light;
- Some children with autism have improved eye contact and speech if the teacher interacts with them while they are swinging or roll over for best eye contact. Sensory input from swinging and turning helps to improve speech. Swinging or turning should be done gently as a game. It should never be forced;
  - Some autistic children can sing better than they can speak. They can respond better if words and sentences are sung to them. Children with extreme sound sensitivity will respond better if the teacher talks to them by whispering;
  - Nonverbal autistic children can't process visual and auditory input at the same time. They are mono – channel. Cannot see and hear and the same time. Shouldn't be asked to look and hear at the same time. They should be given only a visual task or an auditory task. Their immature nervous system is not able to process simultaneous visual and auditory input;
  - Touch is often most reliable sense of a nonverbal autistic child. It is easier for them to feel. They can learn their daily schedule by feeling objects a few minutes before a schedule activity. For example let them hold a toy car a few minutes before going in the car;
  - Some children with autism have difficulty remembering few-steps activities. They remember difficult to look up after using a keyboard. Those children learn easier if the computer key – board is placed close to the screen;
  - Children with autism may have difficulty using a computer mouse. Roller ball (or tracking ball) pointing devices are helpful. Autistic children with motor control problems in their hands find it very difficult to hold the mouse during clicking;
  - Nonverbal autistic children will find it easy to associate words with pictures if they see the printed word and picture on a flashcard;
  - Autistic children don't understand that speech is used for communication. They have to learn that when they say words, concrete things happen. It is easy for a child with autism to learn that their words are wrong if the incorrect word results in the incorrect object;
  - Children with autism who have difficulty understanding speech have a hard time differentiating between hard consonant sound such as "D" and "L". It helps to learn to hear those sounds by starching sounds out and enunciating hard consonant sounds;
  - Using the closed caption on TV helps autistic children to learn to read. Children will

be able to read the captions and more printed words with a spoken speech. Recorded favorite program with a caption would be helpful and can be played over again and stopped;

- Some autistic children do not understand that the computer mouse moves the arrow on the screen. They may learn easily if a paper arrow exactly like the arrow on the screen is taped to the mouse;
- Children with autism with visual processing problems can be bothered and see flickering on computer monitor. They can see better on lap-tops and flat panel displays which have less flickering;
- Often teaching generalization is problem for children with autism. To teach child to generalize it must be taught in many different locations;
- Using the toilet out of home can be a problem for children with autism. They are able to use the toilet correctly at home, but refuse to use it at school or outdoors. This can be the result of failure to recognize the toilet. Autistic children may use a small non-relevant detail to recognize the subject. It takes detective work to figure out that detail;
- Sequencing is very difficult for children with autism. Sometimes they don't understand when a task is presented with a series of steps. They must be taught by touch and motor rather than showing visually. Putting on shoes can be taught in a similar way. The teacher should put her hands on top of the child's hands and move the child's hands over his foot so he feels and understands the shape of his foot. The next step is feeling the inside and the outside of a slip-on shoe. To put the shoe on, the teachers guide the child's hands to the shoe and, using the hand-over-hand method, slides the shoe onto the child's foot. This enables the child to feel the entire task of putting on his shoe;
- Fussy eating is a common problem for an autistic child. Child may be fixated on a detail that identifies a certain food. It is helpful dealing with this problem putting different but similar foods, or another package of a favorite food.

## CONCLUSION

**Margaret Mahler** indicates that the child, from the first inter-uterine-symbiotic relation with the mother, after the birth, enters another period called as normal symbiosis, in which child realizes his needs. This is symbiotic relation, when mother and child have a fine "tonic dialogue" of exchanging movements and emotions. As time passes child starts discovering the

space through movements, emotionally and knowledgeably finds out new experiences out of the symbiotic relation. And in the end child disintegrates of that relation.

If symbiosis is a relationship of living beings in the function of exchange of certain kinds of relations which are necessary for survival of individuals, it seems that the symbiotic mother-child relationship in autistic children is nothing of the above mentioned. Each exchange of emotions between two beings is excluded, as well as the need to discover new ones and the world around the child. The child simply stays “wrapped up” in his space. In such a condition the child can experience the pleasantness of kinesthesia or happiness when seeing his mother’s face. The child at least can drive the symbiotic space with his movements, look, voice and touch and experience himself as a separate being from the mother.

According to this the *primary autism* is an *occurrence of prevented development*. It is “returned” to itself. This, “a child-embryo” at the beginning and later “a child-newborn” with autism, is not able to realize the whole sequence of received irritations as homogeneous, mutually connected and spaciouly presented as localized plexus. They are actually experienced with certain disorder, often individually. These children are simply fascinated by the pleasantness or unpleasantness of the real irritations; disable to discover the totality, the content and the need to live.

Children with autism are very fragile emotionally and need placement in a highly structured special education classroom that can offer individualized academic program. These children require a learning environment in which they see themselves as competent and productive. Accordingly, keeping them in the mainstream, where they cannot grasp concepts or complete assignments, serves only to lower their self-concept, increase their withdrawal, and set the stage for a depressive disorder.

Teachers can play a vital role in helping children with autism to learn them to negotiate the world around them. Because children with autism are frequently unable to express their fears and anxieties. It is significant adults to make worthwhile for them to leave their safe inner fantasy lives for the uncertainties of the external world. Professionals who work with these children in schools must provide the external structure, organization, and stability that they lack. Using creative teaching strategies with individuals suffering from autism is crucial, not only to facilitate academic success, but also to help them feel less alienated from other human beings and less overwhelmed by the ordinary demands of everyday life.

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