THE 'AUTISM IN SCHOOL AGE: EARLY DIAGNOSIS FOR TREATMENT

Francesco Perrotta1 and Gaetano Altavilla2

1 Faculty of Sports Science, Perugia, Italy
2 Faculty of Education Motor, Chieti/Pescara, Italy

Abstract

Autism is a serious psychiatric disorder that limits the person first and then fit to integrate into society and then to establish relationships with others. For example, pet therapy can be important in facilitating the relationship: the one with the animal, has an immediate relationship. To help children with autism using hippotherapy or dolphin therapy. In the rehabilitation of the child sits like riding without a saddle on its back by enabling him to have resulted from stimulation of rhythm and support of the hoof. The treatment of the horse just counteracts the hyperactivity of children with autism. The noise given by the rhythm of the hooves, like the heartbeat of the baby in the womb of the mother felt, that causes a feeling of wellbeing. With the dolphin therapy instead of the child through a kind of return to the womb, just due all'immergersi water. The pet therapy works on many levels. The relationship established between the child and the animal, and the affection that binds them, are all elements that act positively on the affective-emotional and psycho-physical realm. The pet therapy has a positive effect on three levels: 1) emotional and psychological. Pets help to ease the lonelines with their needs center around the person’s attention: for example, a puppy away from negative thoughts, you feel accepted and promotes interpersonal relationships; 2) at the physical level: the animals are a stimulus to motor activity and a tool for rehabilitation; 3) at play: the animal throughout its life, always manages to have the ability to play, even causing people to play.

Keywords: autism, diagnosis, treatment, hippotherapy, dolphin therapy

Introduction

Autism

Definition of Volkmar second, (Klin & Cohen, 1997) and others said that today it is widely held belief that autism is the manifestation of behavioral dysfunctions underlying neurobiological maturation and functioning of the CNS. Etiology is often not defined. Genesis of disease Multifactorial characterized by a widespread and severe disruption of the development process caused by organic disease that affects primarily the CNS when it is being organized (Gillberg & Coleman, 2000). Brief Historical review: 1867 - Henry Maudsley, refers to the first children with autism; 1911 - Bleuler cites the term "autism" to establish the child's lack of contact with the outside world; 1943 - Kanner disclose the work "of autistic disorders affective contact"; 1980 - The third edition of the DSM recognizes that the autistic disorder, and 'a distinct clinical entity; 1990 - Gillberg deepens with the boundaries of scientific studies including the Autism autistic-like disorders such as Asperger's syndrome and atypical autism.

Epidemiology

Head: 10 in 10,000 children; Statistica for gender: 3/5 times more incident in males; Grading nosography; Epidemiological Pervasive Developmental Disorders (DSM-IV): -Autistic Disorder -Rett's Disorder -CDD -Asperger's Disorder -Pervasive Developmental Disorder NOS Pervasive Developmental Disorders (DSM-IV). Features Highlight: a serious handicap in the development of social interrelationships, communication skills in verbal and nonverbal, and / or severely restricted by a wealth of activities and interests sometimes stereotyped and repetitive. The handicaps are clearly inconsistent with developmental level and mental age. These abnormalities are usually detected at childhood. Five of the following symptoms are present simultaneously during 2 weeks and provide a change from previous functioning; one of the symptoms is loss of interest or pleasure. a) Depressed mood during the day, almost always systematically throughout the week, as reported by the subject, b) markedly diminished interest or pleasure in all or almost all, activities, c) Weight loss, or conversely an increase in weight or appetite still want, d) insomnia almost every day, e) psychomotor retardation or hyper every day, f) lack of energy or vice versa lot of strength and will to do, g) Feelings of worthlessness or excessive or inappropriate feelings of guilt, h) Inability to concentrate, difficulty making decisions, i) continuous thoughts of death, suicidal ideation without a specific development plans, an attempt to process a specific plan for committing suicide. Pervasive Developmental Disorders (DSM-IV) - It is pointed out in the first 3 years of age the child Impairment of the quality-value of reciprocal soc. interactions Handicap-quality communication Restriction-behavioral and interests and to-do: 1. Qualitative impairment Among other, a) impairment of non-verbal language behaviors (eg, direct gaze, facial expression, posture) that regulate and determine the interaction with other, b) lack of ability to develop relationships with peers, c) lack of sharing of emotions, pleasures, goals to achieve with other people, d) absolute deprivation of emotional and social forms. 2. Impaired communication quality: a) no delay in the development of spoken language (at times
even total development), b) with adequate speech, a good percentage of cases compromised the ability to initiate or carry on a conversation, c) stereotyped repetitive speech and eccentric, d) lack of organizing simulation games, Imitation and Social, 3. Mode of behavior, interests and activities restricted, repetitive and stereotyped, a) deep inclination to type stereotyped and restricted interests, b) dominated unnecessary and routine rituals specific c) repetitive motor mannerisms almost always, d) excessive and obsessive interest in some parts of objects, Behavioural disorders: - Hyperactivity also associated with impulsivity and lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much anger for a non-zero,- Exaggerated responses to Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
anger for a non-zero,- Exaggerated responses to
Aggression, - Conduct self-harm, - Too much
lack of attention in the concentration, - Sudden
Hyperactivity also associated with impulsivity and
lack of attention in the concentration, - Sudden Aggression, - Conduct self-harm, - Too much
ang

The 'etiopathogenesis of the disorder

There are several theories: psychogenic, biological aspects, psychopathological, etc. The various factors that causes the disorder of intellectual function, - 40% of 50-55 Q.I. or less, - 30%: Q.I. between 50-70, - 30%: Q.I. from 70.

Prognosis

Children with autism with Q.I. 70 and above who use a language of communication within 5 - 7 years are certainly better prognosis. Only 2% acquires a defined "normal". Between 10-15% will have 'a possibility' of achieving a good battery in your family 25-30% but will still show good progress but needs' control and adequate support. The other situations, unfortunately, remain seriously with handicaps or totally incapacitated with administrative attention enabled. Autistic Disorder Goals of therapy: - Reducing behavioral symptoms and improve the skills of communication and interaction to support the development of the functions that are late or non-existent as the use of language and self-care. Intervention must be early and it not only serves to counteract the deviant behavior, but needed to change the organization and expression of the biological diversity, preventing the establishment of social behavior deviant syndrome of autism

Therapeutic treatment-action

1 - psycho-educational approach with the use of cognitive-behavioral methods, 2 - Other methods of intervention, 3 - Drugs indicated when severe disturbances in behavior are highlighted.

Psycho-educational approach

Objectives: - Increase the potential for interaction and communication skills, - Education to manage time and Troubleshooting, - Reduce the behavioral abnormalities that can interfere with learning in a negative way.

Health care: Early behavioral intervention (Lovaas): analysis and behavior changes; Teach Program: helps to improve the adaptation of the autistic child in your environment. Statement following the principles of cognitive theory of mind. Early behavioral intervention according to the theories of Lovaas: The objectives are to create behavioral repertoires and reduce problematic ones socially useful.
These goals are possible with—the systematic teaching of measurable units of behavior. The valid responses are followed by consequences which act as reinforcement, while the responses are not reinforced problems. **Cognitive Intervention:** This intervention is mainly based on a perspective of child development cognitive-linguistic considering the area, and the behavior of social and emotional aspects of how an integrated development. Therefore we will try 'to intensify the development of basic cognitive functions, identifying and strengthening weak cognitive functions; - Developing intrinsic motivation to the task; - Developing the representative thought; Increasing the effectiveness of learning, is also stimulated reflection on the ability to thought processes, helping the child in the selection of strategies and methods in solving problems.

**Treatment and Education of Autistic Children and Comunication handicapped**

**Method TEACH:** Program behavior that is expressed through numerous educational activities aimed at reinforcing the positive behaviors and eliminating negative conduct. - It requires a close and active partnership between parents, teachers and practitioners. - The use of such educational activities should be contextualized and individualized. - The rehabilitation plan includes targets for different areas: communication, free time, autonomy, domestic skills, social skills, learning. The proposed program rather than insisting on the aspects of fragile or deficits, focuses on attention to the development of their potential and existing interests of the child are then stimulated the visual capabilities of autism, as the attention to detail, the mnemonic abilities, giving rise to the ability to self-employment. Another strength of the teaching program is structured the organization of physical proprio'ambiente where he lives: structured and predictable. These intervention techniques are aimed at facilitating the child to understand the world around him. Defining the purpose 'of education and specific objectives. Use of behavior modification techniques, in particular for the management of behavior-problem. Simplify Communication: It focuses on the teaching of alternative communication paths to those of verbal language. The child is taught to write their messages using the PC keyboard. The teacher-facilitator, in fact facilitates the operation by supporting and guiding the child's hand and then later in the sessions progress moved his hand on his arm and shoulder of the child. **Music Therapy:** and 'activity related to production and listening to music with a positive impact. For some children, these activities are an opportunity to practice social skills. Music therapy is revealed as a calming action that facilitating interaction and communication activities. These children are, unfortunately, have discriminatory capacity of the notes and melodies. **The pet therapy:** The intervention of the pet therapy lies in the interaction between animal and child at home or going into rehabilitation centers where rehabilitative sessions are led by experienced staff. This activity today and 'highly recommended and practiced because it offers a suitable and stimulating environment for learning and psycho-motor to better exercise their ability to interact with others. **ABA (Applied Behavioral Analysis)** the 'systematic use of principles of human behavior proposed by psychologists in the science of human behavior with a practical technique for the design, implementation and evaluation of intervention programs, using the observation and recording of behavior , which establish the basis for starting the design and implementation of targeted interventions for behavioral change and learning new skills. Not everyone knows that the ABA approach is not 'experimental; indeed over 20 years scientific research and documentation certifying its effectiveness in the results (Harris & Handeleman, 1994; etc.). The statistical factors that determine the best outcome ("Best-outcomes") of the treatment are: 1. the child's age at initiation of treatment in the first 3 years; 2. intelligence defined as "normal", 3. an operation called "quality" of 30 hours per week, 4. good progress to start. The child who shows good progress in the first months of treatment and established that will continue to improve. On average 10% of cases the intervention will unfortunately not significant results (Maurice, Green & Light, p.38), and the intervention is stopped and the time of 6 months of work is usually 'to assess the initial progress obtained. The intervention will have as the main mode of teaching through separate testing ("discrete trial teaching"). DTT teaching is done in an environment that eliminates the distractions that can impede learning; breaks down skills into smaller meaningful to the child teaches the skill to time, ABA uses the principles of how the principles of the use Correct the reinforcement; total aid to the child. With this method the child will have 'little chance' of failing to achieve the objectives and then to fail. For this reason, and 'called "errorless learning" ("errorless-learning").

The child will not find 'reinforcing the natural and inherent in these operational situations. The method of teaching DTT replace natural and intrinsic positive reinforcement that the child "typical" is spontaneously in their environment with an artificial reinforcement. So the child will have 'a reason to take the action (observing, imitating, produce vocalizations) that will lead to the development and improvement of its skills needed, such as peers to learn by watching, talking, use of symbolic play. At first, these skills will prove to be quite awkward, artificial. The child will run for the goal of receiving his "prize". But the development of these skills seem trivial, are an integral part of programming.

**ABA**

The skills are taught starting in an environment free of distractions, using a communicative method artificially simple.
The next stage will be to make ever more complex and natural situation, and gradually change searching of all elements of the situation. The child who has learned "to table" to imitate a 'adult simple actions, pussy' to imitate adult actions much more complex, then learn to imitate the adults in symbolic play, done in natural situations, is helped to imitate a richer environment of distractions, is placed in a situation like the school where he can finally begin to build on all that has managed to learn to do before. Only when there is evidence that the child begins to imitate his peers, in a spontaneous and natural in situations just like the school, we can state that the imitation practiced surgery was successful.

The specific operation of teaching DTT ABA

Goals of treatment
The objectives relate to: the language, communication, play, socialization and self-sufficiency shown, via a route that is based on imitation at the beginning, the drive and skills. The objectives are targeted and individual for each child, but they make sense for all programming.

The living environment
The environment must facilitate the learning stages, so it is necessary to remove any distractions that vary depending on the child. At the same time the environment needs to look more comfortable to put at ease and comfortable because of the long time that children should be maintained. The tests take place normally with the child and the adult seat and sit facing one another, with a small table on child.

Analysis applied to conduct ABA
Hours of therapy are carried out in 2 or 3 sessions of therapy daily. In a first phase of organizational sessions are very small, then gradually increase, and the time length and divided into two or three sessions a day.

The database
The recorded data are collected for all sessions: For separate testing data are summarized in graphical form every day.

Conclusions
How is it structured as therapy:
The lessons given at the table with discrete trials are alternated with short breaks. If the child has the ability to play functional, may play during the breaks on his own, otherwise it will be followed by the adult in these moments. The most difficult lessons to be alternated with the easiest, language lessons are interspersed with activities such as imitation and play activities. All must be carried out with the pace best suited to that child: fast enough to keep the child's attention, but not so quick to frustrate. The therapy is structured in a personalized way than the individual child, and thus varies considerably from person to person. It can also vary from session to session for the same child, for example, if he works better in the morning can be decided on a longer session in the morning and a shorter afternoon. Varies even within a single intervention, as the hours in the first year are usually more structured, and as the child gains more skill the hours are carried out in other situations, such as a walk around the neighborhood or school.

References
**AUTIZAM U ŠKOLSKOM UZRASTU: RANO DIJAGNOSTICIRANJE ZA TRETMAN**

**Sažetak**

Autizam je ozbiljni psihijatrijski poremećaj koji prvenstveno ograničava osobu kao takvu a zatim i u socijalnoj integraciji, kao i u ostvarivanju relacija s drugima. Kao primjer, terapija s ljubimcima može biti jako važna u poticanju relacija: netko sa životinjom ima gotovo trenutnu relaciju. Kao pomoć djece s autizmom koriste se konji ili delfini u terapiji. U rehabilitaciji djeca sjedenje poput jahanja bez sedla na konju može biti korisno za stimuliranje ritam i potporu kretanju. Tretman uz pomoć konja djeluje na hiperaktivnost kod autizma. Smetnja koja se javlja u ritmu jahanja, kao kod bebe koja osjeća majčin utjecaj srca, daje osjetljenje zadovoljstva. Kod terapije uz pomoć delfina radi se o svojevrsnom "povratku" u maternicu, obzirom na vodeni medij. Terapija ljubimcima djeluje na mnogim razinama. Ustanovljavanje relacija između djeteta i životinje, kao i afektacija koja ih povezuje, su elementi koji djeluju pozitivno na afektivno-emocionalni i psihofiziološki doživljaj. Terapija životinjama ima pozitivne učinke na tri razine: 1) emocionalni i psihološki. Ljubimci pomažu olakšavajući usamljenost svojim potrebama pozicije središta oko pažnje osobe: npr. psič otklanja negativne misli, osjeća se prihvaćeni i promovira se međupersonalni odnos; 2) na fiziološkoj razini: životinje su podražaj za motoričku aktivaciju i sredstvo rehabilitacije; 3) u igri: životinja kroz svoj život, uvijek se nastoji igraći, i čak čini da se i ljudi počnu igraći.

**Ključne riječi:** autizam, dijagnostika, tretman, terapija konjima, terapija delfinima

---


* * * (2003). /Gruppo Asperger ONLUS/ di di Borellini F. *Una scuola per me.* Roma: Fratelli Frilli Ed.


* * * (2005). /SINPIA/ *Linee guida per l’autismo.* Roma: Erickson.

---

**Sažetak**

Autizam je ozbiljni psihijatrijski poremećaj koji prvenstveno ograničava osobu kao takvu a zatim i u socijalnoj integraciji, kao i u ostvarivanju relacija s drugima. Kao primjer, terapija s ljubimcima može biti jako važna u poticanju relacija: netko sa životinjom ima gotovo trenutnu relaciju. Kao pomoć djece s autizmom koriste se konji ili delfini u terapiji. U rehabilitaciji djeca sjedenje poput jahanja bez sedla na konju može biti korisno za stimuliranje ritam i potporu kretanju. Tretman uz pomoć konja djeluje na hiperaktivnost kod autizma. Smetnja koja se javlja u ritmu jahanja, kao kod bebe koja osjeća majčine otkucaje srca, daje osjetljenje zadovoljstva. Kod terapije uz pomoć delfina radi se o svojevrsnom "povratku" u maternicu, obzirom na vodeni medij. Terapija ljubimcima djeluje na mnogim razinama. Ustanovljavanje relacija između djeteta i životinje, kao i afektacija koja ih povezuje, su elementi koji djeluju pozitivno na afektivno-emocionalni i psihofizički doživljaj. Terapija životinjama ima pozitivne učinke na tri razine: 1) emocionalni i psihološki. Ljubimci pomažu olakšavajući usamljenost svojim potrebama pozicije središta oko pažnje osobe: npr. psič otklanja negativne misli, osjeća se prihvaćeni i promovira se međupersonalni odnos; 2) na fiziološkoj razini: životinje su podražaj za motoričku aktivaciju i sredstvo rehabilitacije; 3) u igri: životinja kroz svoj život, uvijek se nastoji igraći, i čak čini da se i ljudi počnu igraći.

**Ključne riječi:** autizam, dijagnostika, tretman, terapija konjima, terapija delfinima

---

**Received:** April 16, 2012

**Accepted:** December 10, 2013

**Correspondence to:**

Assoc.Prof.Francesco Perrotta, PhD.

University of Perugia

Faculty of Sports Science

06100 Perugia, P.zza. Universita 1, Italy

Phone: +075 5851

E-mail: francescoperrotta@msn.com
Autism Spectrum Disorders (ASDs) are a group of developmental disabilities that can cause significant social, communication and behavioral challenges. CDC is working to find out how many children have ASDs, discover the risk factors, and raise awareness of the signs. Doctors look at the child’s developmental history and behavior to make a diagnosis. ASD can sometimes be detected at 18 months or younger. By age 2, a diagnosis by an experienced professional can be considered very reliable [1]. However, many children do not receive a final diagnosis until much older. Some people are not diagnosed until they are adolescents or adults. This delay means that children with ASD might not get the early help they need. Autism spectrum disorder (ASD) is a common neurodevelopmental disorder with reported prevalence in the United States of 1 in 59 children (approximately 1.7%). Core deficits are identified in 2 domains: social communication/interaction and restrictive, repetitive patterns of behavior. Children and youth with ASD have service needs in behavioral, educational, health, leisure, family support, and other areas. This single clinical report updates the 2007 American Academy of Pediatrics clinical reports on the evaluation and treatment of ASD in one publication with an online table of contents and section view available through the American Academy of Pediatrics Gateway to help the reader identify topic areas within the report. So, the earlier autism is diagnosed and thus treated, the more effective and long-lasting the effects are. Research has shown that if children get early intervention, it’s more likely that they won’t need intensive support in elementary school and beyond. Essentially, early diagnosis of autism is a game changer for autistic children and their families. But again, it’s very difficult given its heterogeneity. This is a problem I wanted to solve, and one place where I found a lot of opportunity was the gut microbiome. Any age, autism has an early age of onset with more than 1% of affected children characterized by a wide range of severity and continuous distribution of ASD traits in the general population [3]. Genetics and Epigenetics of One-Carbon Metabolism Pathway in Autism Spectrum Disorder: A Sex-Specific Brain Epigenome? After stratification for age, there were no significant differences detected in preschool-aged group. In school-aged group, the results exhibited the children with ASD had higher hair Pb (1.485 Åµg/g, 0.690 Åµg/g, P = 0.007) and Cu/Zn ratio (0.092, 0.060, P = 0.003), while hair Hg (0.254 Åµg/g, 0.353 Åµg/g, P = 0.016) and Mn (0.089 Åµg/g, 0.385 Åµg/g, P = 0.002) and Mg (17.81 Åµg/g, 24.53 Åµg/g, P = 0.014) and Zn (100.15 Åµg/g, 135.83 Åµg/g, P = 0.007) showed an opposite pattern.