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Review Article

Autism Diagnostic Criteria, Symptoms, Child Diagnosis and Evaluation Scales

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Abstract

Introduction: Autistic children have not withdrawn from reality due to some mental illness, rather they have failed to come out due to a serious, and to a large extent, developmental disorder. As a result, autism is not currently considered psychosis, but is classified as a pervasive developmental disorder. This means that it is classified along with the other developmental difficulties rather than the mental illnesses themselves.

Aim: The aim of this study was to present an organized context of autism, its symptoms and clinical picture, its diagnostic criteria as well as child rating scales.

Method: The recent literature was reviewed with keywords: autism, symptoms, diagnostic criteria, evaluation, assessment of autism.

Conclusion: Autistic Disorder or autism is a severe form of Diffuse Developmental Disorder and has been described as a "spectrum disorder", which means that the clinical picture of autism is not homogeneous, but ranges from milder forms (with minimal and mild form). autistic elements and normal intelligence) to more severe forms (with multiple autistic elements accompanied by severe mental retardation).

Keywords: Autism, Symptoms, Diagnostic Criteria, Evaluation, Assessment of Autism, Spectrum Disorder, Activities, Cold Rational, Mental Retardation

Introduction

Autism is a disorder that is affecting more and more people and has been described as a "spectrum disorder" which means that the clinical picture of autism is not homogeneous, but ranges from milder forms (with minimal and mild autistic features and normal intelligence) up to more severe forms (with multiple autistic elements accompanied by severe mental retardation). Autism has a reduction in the following areas [1]:

a. Mutual social transactions

b. Communication

c. General behavior (stereotyped and divisive reactions occur)

d. Interests

e. Activities

In the areas mentioned above, people with Autism not only differ due to developmental delays, but also have divergent reactions, which are not usually found in children with normal development.

Diagnostic Criteria

The diagnosis of Autistic Disorder even today is based on the characteristics of the child's behavior and not on medical examinations, although it is widely accepted that the causes of autism are due to organic rather than environmental factors [1]. It is true that Kanner himself fueled these orientations considerably by referring to "cold rational" parents and the upper social class, in conjunction with his claim that autistic children have potentially high intelligence. We need a brief reference to these issues because they are involved in the definition of autism in a variety of ways [2]:

a. Are the points that were mainly refuted during Kanner's initial presentation,

b. The data on them are also indirectly answered in the hypothesis for a psychogenic definition of autism, essentially excluding it and

c. From here the research went further, which It was already focusing on the specifics of autism, thus leading to modern perceptions of this disorder but also to highlighting its complexity. Kanner concluded that children should maintain normal intelligence, indirectly: from the islands of potential that he found to maintain among their difficulties, such as: Their "excellent" memory. Many studies have shown that most autistic children have some degree of mental retardation, which is usually not severe. In fact, it remains and is still seen later, even if their social performance improves as they grow older [3,4].

The other thing that is clear here and important for the definition of autism is that, although mental retardation and autism often coexist, they are not identical. A few points from reliable studies can show interesting differences:

a. Autism can coexist with illnesses and conditions that usually cause mental retardation, but the association does not seem to be as strong: it seems to go particularly well with low sclerosis, which is a rare condition, but much less so with Down syndrome or cerebral palsy., which are much more common causes of mental retardation [1].

b. Epileptic seizures, common in children with mental retardation but usually beginning in early and middle childhood, typically first appear in autism (in ¼% of cases) around or near adolescence, or later13.

c. Characteristic differences are presented by retarded children and in particular aspects of cognitive emotional and social function. As in the immediate recognition of the leaf, in the recognition of emotions as they appear in human faces and in the emotional understanding.

Kanner's first study of autism highlights several traits that he found to be characteristic of all the children he saw. These features are as follows [5]:

Excessive Autistic Loneliness

Children failed to interact smoothly with people and seemed to be overjoyed when left alone. This lack of social response appeared, according to Kanner, very early in life, as shown by the autistic infant's failure to reach out to the parent who would take him or hug him.

Anxious Depressive Desire to Maintain Similarity

Children were overly irritated by changes in routine or their surroundings. A different school routine, a rearrangement of furniture, could be the cause of an explosion, and the child may not be able to calm down until the familiar order is restored.

Excellent Memory

The children Kanner saw showed an ability to recall large and insignificant amounts of material (.g., an encyclopedia content page) that did not keep pace with their clear learning difficulties or mental retardation in other cases.

Delayed Hoarseness

Children repeated the language they were hearing but failed to use words to communicate on topics beyond their immediate needs. The echo may explain the reversal of Kanner's pronouns-those children use the "You" when referring to themselves and the "I" to the other person. This use would be an immediate repetition of another speaker's observation. Similarly, autistic children commonly use an entire question to ask for something that follows (e.g., "Do you want a sweet?", Meaning " I want a sweet").

Hypersensitivity to Stimuli

Kanner noted that many of the children he saw reacted strongly to certain noises and objects, such as vacuum cleaners, elevators, and even blowing air. Some even have problems or fantasies with food.

Limitation to Spontaneous Activity Diversity

This is evident in children's repetitive movements in their verbal expressions and their interests. Kanner, however, realized that children often seemed to have a good relationship with objects revealing an amazing skill in spinning things or completing puzzles.

Good Cognitive Abilities

Kanner believed that the outstanding memory and skill shown in some of his cases reflected a superior intelligence, in addition to the fact that many children were considered to have severe learning disabilities. This strong impression on intelligence often observed in parents and teachers. A good memory is especially torturous-it leads everyone to form the impression that only if it turned to some practical use the child would learn well. An impression of intelligence is still given by the complete lack of obvious features in most cases of autism. Unlike children, who have many types of severe learning disabilities (.g., Down syndrome), autistic children usually have a "normal" appearance. Kanner pointed out his "intelligent features".

Highly Intelligent Families

Kanner pointed out that all his cases had intelligent parents, which may have facilitated the referral of their children to a specialist-so Kanner's sample is unlikely to be representative. Kanner also described parents as cold, although in his first article he was far from a psychogenic theory. On the contrary, he considers that "those in the world with an innate lack of ability to form a normal, biologically determined, emotional contact with people. "The areas of speech that are particularly affected by autistic disorder, both comprehension and expression, are those that are related to the dialectical elements of speech, its prosody (tone of voice, volume, strength, intonation) [6], with its non-verbal elements (posture, distance, facial expressions etc), the factual nature of speech and its use in everyday communication practice [7].

Kanner Isolated only Two of These Key Elements of Autism

"Excessive isolation and depressive obsession with maintaining similarity." He considered that the other symptoms are either secondary and caused by these two elements (e.g., communication deficiencies), or that they do not correspond to autism (e.g., stereotypes) [8].

Symptoms

The symptoms of autism can generally be divided into "deficiencies" and "surpluses" of behavior. The shortcomings concern the main areas of development, such as [5]:

Attention

a. Avoid eye contact

b. Distraction

c. Minimal or excessive preoccupation with certain objects

d. Expression of concern

e. Speaking

f. Hoarseness

g. Incomprehensible joint

h. Inappropriate hoarseness of voice

i. Inappropriate volume of voice

j. Incoherent reason

k. Repetitive speech

Social and Emotional Events

a. Avoidance or refusal of physical contact

b. Avoidance or refusal of social contact/communication

c. Lack of interest in peers

d. General lack of interest in people

e. Lack of initiative and response to social transactions

f. Apathy to stimuli that cause fear

g. Excessive fear response to stimuli that usually do not elicit a phobic response

h. Apathy or excessive reaction to separation from the mother

i. Apathetic or inappropriately emotional expressions

j. Lack of empathy

Play

a. Peculiar use of toys abstaining from symbolic or representational play

b. Abstention from binary or group play with peers

c. Excessive attachment to certain games

d. Interest in a very limited number of games

Sensory Processing

a. Idiosyncratic processing of visual stimuli (e.g., plain gaze)

b. Indifference or excessive reaction to auditory stimuli (e.g., does not react to a loud click, while closing his ears to the sound of the vacuum cleaner)

c. Indifference or excessive reaction to tactile stimuli (e.g., apathetic pain remains, while caressing is not tolerated)

d. Hypersensitivity to certain flavors and odors

Selective Attention to Certain Characteristics of Environmental Stimuli or Over selectivity

It tends to focus on individual characteristics of environmental stimuli, such as color or shape, resulting in processing them piecemeal rather than spherically. This fragmentary or over-selective treatment exacerbates the difficulty for the person with autism to distinguish and recognize objects or symbols and to generalize their skills with new stimuli and in new conditions [9,10]. For example, if he has learned to name the person depicting a photograph, he recognizes it only from that photograph. He does not realize that the person he depicts in different photos is the same. This difficulty is due to the fragmentary observation of an element or elements of the photograph, such as the clothes of the person depicted or the landscape, instead of globally observing all the facial features that are the main stimulus for recognizing people [11].

Cognitive Functions

a. Mental retardation

b. Unstable learning

c. Developmental gaps in cognitive areas

d. Learning regression

"Surpluses" in the behavior of people with autism are mainly associated with maladaptive and stereotypical reactions and can be classified into the following categories:

Dissociative Behavior

a. Anger attacks

b. Disobedience

c. Aggression

d. Self-injuries

Stereotypical Reactions

a. In tactile stimuli (e.g., visual surveillance with half-closed eyes, monitoring of objects holding and twisting them like a whirlpool)

b. In speech (e.g., incoherent sounds or continuous phrases)

c. In the smell (e.g., smells persistently of objects or people)

d. In taste (e.g., holds food in the mouth for a long time) e) in touch (e.g., rubs fingers together)

e. In motion (e.g., shakes his fingers, hands or feet for a long time, tightens his muscles)

f. Rituals (e.g., placing objects in a straight line)

Special Abilities

a. Excellent memory and parrot ability

b. High arithmetic ability

c. Hyperlexia

d. Dexterity in puzzles and games with complex mechanisms

Diagnosis Scales and Evaluation of Children with Autism

The use of questionnaires and scales that assess only behavioral problems as well as the limited interests and repetitive and stereotypical behavior of children with ASD is useful not only for diagnostic purposes, but because it is a guide for prioritizing the goals of therapeutic intervention. That is, we decide to start the therapeutic intervention from the most serious problems of the child and the family (that is, the problems that most affect the life of the child and his family as well as those that greatly impede learning) and then we intervene in the least serious problems (those that least affect the child's life and learning). According to the DCM-III-R we can classify the diagnostic criteria of autism into three categories: social behavior, communication, and deviant behavior. To diagnose autism, it is necessary to add up a total of six or more "points" from the three categories mentioned above. In particular, the presence of at least two "points" from the first category and at least one point from the second and third category is necessary.

Diagnostic Criteria for Autism Disorder by DCM-III-R

At least eight of the following traits are present and include two traits from group A, one from group B and one from group C [1].

Note: Consider a criterion only if the behavior is abnormal to the individual's level of development.

A. Qualitative Deficiency in Mutual Social Interaction as Manifested by the Following:

(The examples in parentheses are arranged so that what is mentioned first is more likely to suit smaller or more disadvantaged individuals and the latter to larger or less disadvantaged individuals with this disorder).

Clear lack of vigilance regarding the existence or feelings of others (e.g., treats one person as if it were a piece of furniture, does not perceive another person's anguish, obviously does not perceive the need for other's privacy).

a. Lack or abnormal pursuit of relief in times of distress (e.g., does not seek relief even when ill, wounded, or tired, seeks relief in a stereotypical way, e.g., says "cheese, cheese, cheese »Whenever he is injured).

b. Lack or inadequate imitation (e.g., does not shake his hand when saying "hello", does not copy the mother's activities at home, mechanical imitation of actions without content) Lack or abnormal play with others (does not actively participate in simple toys, prefers solitary play activities, engages in other children's play only as "mechanical assistance").

c. Clear lack of ability to make friends with peers (no interest in making friends with peers, despite the interest in making friends shows a lack of understanding of the habits that govern social transaction (for example, reads a phone book to non-interested peers).

B. Quality Deficiency in Verbal and Non-Verbal Communication and Creative Imagination Activities, as Manifested by the Following:

(The numbered features are arranged so that those presented first are more likely to apply to smaller or more disadvantaged individuals and the latter to larger or less disadvantaged individuals with this disorder). No means of communication, such as the use of articulate communication screams, facial expressions, gestures, imitations or spoken language.

a. Clear abnormal non-verbal communication on topics such as a research look, facial expression, posture or gestures to start or arrange a social transaction (e.g., does not anticipate being held in the arms, does not bend his body when held, does not look at the person or laugh when he takes a social approach, does not shake hands with his parents or visitors, has a steady plain look at social situations).

b. Lack of creative imagination activity, such as playing the roles of an adult, fictional person or animal, lack of interest in fictional storytelling.

c. Clear abnormalities in speech production, which includes characteristics such as volume, color, agony, proportion, rhythm, and tone (e.g., monotonous speech, question-like melody, or high color).

d. Clear anomalies in the form or content of speech, which includes stereotyped and repetitive use of speech (e.g., direct echo or mechanical repetition of TV commercials), use of "you" instead of "I" (e.g., uses: "Do you want a nut?" To mean: "I want a nut"), temperamental use of words or phrases (e.g., uses: "Go on the green aisle" to mean: "I want to go to the cot"), or frequent irrelevant remarks (E.g., begins to talk about train timetables during a sports discussion).

e. Clearly inadequate ability to initiate or maintain a conversation with others beyond adequate speech (e.g., it results in long monologues that deal with a topic regardless of its connection to other topics).

C. Clearly Limited Repertoire of Activities and Interests:

a. Stereotypical body movements, e.g., hitting-twisting-knitting of the hands, strong banging of the head, complex movements of the whole body.

b. Persistent bias towards parts of objects (e.g., smell of objects, repetitive sensual contact with materials, rotation of toy car wheels) or attachment to unusual objects (e.g., insists on rotating a piece of rope).

c. Clear anxiety about changes in insignificant aspects of the environment, e.g., when a jar is moved from the usual position.

d. Reckless obsession with routines with precise detail, e.g., obsession to always follow the same shopping habit and exactly.

e. Clearly limited range of differences and a bias with a narrow interest, e.g., is interested in putting objects in order, collecting meteorological facts, or pretending to be a fictional person.

D. Beginning During Infancy or Childhood:

Identify the onset of childhood (after 36 months of age).

Categories With Indicative Examples of Grading Scale Classification of Autism (CARS, Childhood Autism Rating Scale, 1988)

Because people with Autism, in addition to psychoeducational needs, have additional problems due to deviant behavior, specially weighted scales and questionnaires are particularly useful to assess the behavioral problems, anxiety, and other disorders that these individuals experience. The most well-known and widespread of these questionnaires and scales are: the Autism Behavior Checklist (ABC) [3], which helps determine if a student should be referred for an autism test in the first place. , Autism Diagnostic Interview-Revised (ADI-R) [13] (also used to diagnose autism) and the Childhood Autism Rating Scale (CARS) [12], perhaps the most common scale for autism, used to determine the severity of symptoms. The score on this scale classifies autistic disorder as mild, moderate, and severe. CARS groups autism-related symptoms into 15 categories and each symptom are classified based on 7 scores (1, 1.5, 2, 2.5, 3, 3.5 and 4). The grade of the symptoms ranges from grade 1 (which means the manifestation of behavior at a normal level for his chronological age) to grade 4 (which means the manifestation of a symptom at a level that indicates a serious disorder). Below are the 15 categories of symptoms with examples [14-16].

Interpersonal Relationships

E.g., the grade 2.5-3 is given when the child sometimes does not perceive the presence of adults. It sometimes takes persistent effort to get his attention. Takes minimal communication initiatives.

Imitation

E.g., Grade 4 is given when the child rarely imitates sounds, words, or movements, even at the urging of adults.

Emotional Manifestations

E.g., grade 1 is given when the child expresses his feelings with the quality and intensity dictated by social situations. Emotional expression is judged by the child's facial expression, posture, and manners.

Movement of the Body

E.g., Grade 2 is given when the child shows minor peculiarities in movement, such as awkwardness, repetitive or uncoordinated movements and when he is very short, he makes particularly unusual movements.

Use of Objects

For example, grade 4 is given when the child has little interest in toys or other objects or uses them in very peculiar ways. Absorbs dealing with elements or parts of the game that are not important and is impressed by the reflection of light on these objects [17]. Repeatedly shakes a part of the object or plays exclusively with a single object. When a child becomes addicted to the above reactions, it is very difficult to distract him from them.

Adaptability to Change

E.g., Grade 2 is given when the child is still engaged in the same activity or the same material, despite the efforts of an adult to distract him.

Visual Reactions

E.g., grade 1 is given, if the child has normal for his age reactions to visual stimuli. It uses its sight, like its other senses, to process new stimuli.

Acoustic Reactions

E.g., grade 3 is given when the child's reactions to auditory stimuli vary. The child sometimes systematically ignores some sounds and other times, scares and closes his ears if he hears normal sounds of the environment.

Reactions related to Taste, Smell and Touch

E.g., grade 2 is given when the child insists on putting in his mouth, smelling or trying to eat non-edible objects. The same degree is given when he is either completely ignorant or overly intolerant of mild pain, for which the average child would simply show little discomfort.

Stress Reactions

E.g., Grade 4 is given when the child repeatedly shows phobias about situations and objects that are harmless, while it is very difficult to alleviate his fear. The child may expose himself to dangers that children his age has learned to avoid.

Verbal Communication

For example, grade 4 is given when the child does not use communication language. It can make babies cry, strange sounds that sounds like animal cries, complex noisy sounds that characterize articulated words or phrases in a repetitive and strange way.

Non-Verbal Communication

E.g., grade 3 is given when the child cannot express his needs and desires using ways of non-verbal communication and does not understand the expressive communication expressions of others.

Mobility Level

E.g., Grade 1 is given when the child shows no deviation from children of his age in motor activities. The child does not show hyperactivity or hyperactivity in relation to children of his age.

Level of Stability in Cognitive Skills

E.g., Grade 3 is given when the child in general does not have the same cognitive skills as children of his age, but in one or two areas shows normal development.

General Impressions

The score ranges from 1 (the child does not show symptoms of autism) to 4 (the child has many symptoms or autism in severe form).

Conflict of Interest

No conflict of interest

Acknowledgement

None.

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