Early Assessment of Mental Development in Children with Autism Spectrum Disorder (ASD) and other Neurodevelopmental Disorders – Sharing of Clinical Experience

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Abstract: The authors present a synthesised review of the methods for assessing mental development and autism, with an emphasis on the general tendency to reduce the age of diagnosis. Based on clinical experience, a number of particularities are described in terms of: testing, working with parents, observing and reflecting on the nature and meaning of autistic behaviours. On focus is a toolkit for detailed assessment of mental development that was elaborated within the inter-university cooperation between Sofia Medical University and Université catholique de Louvain (UCL) - Belgium. Illustrated and discussed are typical profiles of cognitive and socio-communicative functioning of children with ASD and other neurodevelopmental disorders, which help a differential diagnosis to be made by the multidisciplinary clinical team. Further described are the advantages of early assessment of mental development as a basis for future educational and therapeutic programs.

Keywords: Autism Spectrum Disorder (ASD), Neurodevelopmental Disorders (NDDs), early assessment of child development, mental developmental profiles.

INTRODUCTION

Various research studies emphasise the importance of early childhood screening and the necessity for early identification of developmental problems among young children [1, 2]. With the introduction of the Diagnostic and Statistical Manual of Mental Disorders - 5th edition (DSM-5), a new category of disorders was defined under the name "Neurodevelopmental Disorders". It includes: Intellectual developmental disorder, Communication Disorders, Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, Specific Learning Disorder, Motor Disorders and others [3]. Combining all these disorders in one category indicates the idea that early onset conditions tend to diminish with age but remain persistent throughout the individual's lifetime.

In this article we present our experience in working with children exhibiting neurodevelopmental disorders (especially ASD) and their families at the University Child Psychiatric Clinic in Sofia. We share our clinical observations and point of view on the importance of psychological assessment as the basis for future therapeutic programs aimed at stimulating child development. We introduce a toolkit we have used for over 15 years [4] that provides a detailed assessment of the child functioning in the age range between 0 and 24 months. We compare typical profiles of children with ASD to profiles of children with other neurodevelopmental disorders. This comparison is useful for differential diagnosis and allows for an earlier diagnosis of children with NDDs. Moreover, we describe and share some of our reflections about specific behaviours of children with ASD and their parents, which we encounter in our daily work.

PSYCHOLOGICAL ASSESSMENT OF CHILDREN WITH ASD

A number of studies about autism and various forms of delay in the neuropsychological development [1, 5-9], indicate a reduction of the age limit for diagnosing children below the age of 18 months. These studies underline the importance of early interventions, work with parents and collaboration between various specialists as a major factor for preventing the aggravation of the disorder and for stimulating development.

Similar to the understanding of schizophrenia, in the case of autism there is a transition from the idea of "fragmentation" to the idea of "unification" within a single general disorder. This has been demonstrated through analysis of diagnostic criteria in the DSM over the years [10]. The DSM-IV constituted a turning point in the elucidation of the single diagnostic category

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concept, which was reflected in the DSM-5 (2013) as "autism spectrum disorder". Observed was an extension of symptoms such as sensory interests and strong aversions that have not been included previously as criteria in the DSM-IV [3, 10]. A two-dimensional model of the symptoms was used, which combined the deficits in social interaction and communication into a single diagnostic category; the second category was related to "restricted, repetitive patterns of behaviour, interests, or activities" [3]. These symptoms must be present in the early stages of development and could exist in three levels of severity, related to the needs of support.

It has been a long time since persons with ASD were considered non-testable. As Schopler has noted in 1979, "there are no untestable people with the diagnosis. Only bad psychologists, who use tools that are not adapted to the patients fragile level of development" [*in* 11, pp 5].

Over the years many tools for autism assessment have been developed and tested and we can now conclude that psychologists have a wide range of methods that are already well researched and validated, ranging from those with clinical and diagnostic focus to detailed developmental research methods that cover all spheres of development (cognitive, socio-communicative, psychomotor, socio-emotional...) in the various age groups. As differentiated by Cécile Bouyer [11, pp 8], there are "formal" and "informal" means of developmental assessment. The former ones, such as the one presented below, enable the creation of an individual profile of competence and difficulties. They are important for the services that autistic children attend regularly, as they provide the basis for the establishment of an individual care plan. The "informal" assessment (in the form of questionnaires that explore various observed specific behaviours) is also important because it is aimed at parents and professionals, who are interacting with the autistic children on a daily basis. Of course, it is best to apply the two assessment methods at the same time, as they are complementary and allow for the elaboration of a psychological and educational individual profile of the autistic child at any stage of development.

The need for psychological research in the first years poses some important issues that early childhood psychologists face in their work. As Adrien notes [12], infancy is a period when nosography is not yet well-defined – a period of a very rapid development characterised by irregularity of the rhythm and fluctuations between the respective spheres and achievements. Practitioners rightly question cases when the psychologist needs to apply methods used for earlier age to older children exhibiting high severity of the disorder and grave developmental delay. We have often encountered this problem in our work – for example, when we have to apply scales for assessment of cognitive and socio-communicative development for children up to 24 months of age, to a 4 year old child with ASD. In this case, it would be inappropriate to apply scales to assess psychomotor skills for such an early age.

In summary we can conclude that both types of instruments (formal and informal) play an important role in the clinical practice. Their parallel and consistent application meets different needs and complements the important information aimed at professionals and parents. Nevertheless, the utilization of some rating scales and check lists has gained greater popularity and some of these instruments are considered as "golden standard" for screening and diagnosing, as well as for determining the severity of the disorder. Among these are: M-CHAT, CARS, ADI-R, ADOS-2 [13], which are also used in our country. Their purpose is primarily to disclose and track the evolution of symptoms, while their great popularity allows for the synchronisation of the assessment criteria being achieved. It could be argued that this is also a result of a consensus among professionals, and is reflected in the International Classifications of Diseases (ICD). This is of an importance, as it reflects upon the scientific research efforts aimed at studying the development and functioning of autistic children.

Important Remarks Concerning the Process of Psychological Assessment of Children with ASD

When assessing the development of children with ASD there are a number of issues to be taken into account. As noted by Peres-Al Halby and Adrien [14], there is a need for a great deal of flexibility in the choice of stimulus material and the tool's consistency. For example, at the end of an assessment, the psychologist could give to the child tasks that could cause frustration or preoccupation with a particular object or activity. This is often contrary to the strict procedural rules for testing that apply to most tools. Sometimes, to complete the assessment, we have to use personal objects that autistic children usually have a habit to carry with them. Parents often assist, as we do not mind for them to attend the assessment, and

they usually have strategies to make autistic children do something. It is also the parents, who know what is interesting for their child, what would frustrate or scare him. Within the process of assessment, what could occur is that parents can often become astonished by the therapeutic effect of the professional's approach in working with the child – i.e. how the child can be motivated to do something that the parent never knew he was capable of.

For autistic children the setting is also important– whether it is familiar, or a place with too many details and objects in the room that could distract the child's attention (e.g. a sink, an accessible lamp switch, an open window, etc.). It is also inappropriate for the space to be too large, as the greater distance allows greater and more active chaotic movements and difficulties in attracting the attention of the autistic child to the assessment tools being used. Particularly challenging is the requirement of time to be taken into account. Autistic children who generally resist instructions require the psychologist's ability to demonstrate what he or she would want from the child. Therefore, the allocation of more time is required, as the child could often have "delayed reactions". There are "holes" and "gaps" in the development of the child and performance on standard tests is uneven – the autistic child may fail the first, simple probes but cope with more complex items, corresponding to a higher developmental stage.

This behavioural pattern of the autistic children during assessment poses a number of questions about understanding the development as a hierarchical system of knowledge and skills where each preceding stage prepares and assists the emergence of the following one. It is very important to register and describe these "islets of ability" [10, 15, 16], as they serve as basis for the elaboration of future therapeutic and educative programs. This typical "disharmony" in the mental profiles of autistic individuals mentioned by a number of authors [11, 17, 18], including us [10], clearly shows the difficulty of ASD children to build and progressively "fill" the gaps in the different stages and aspects of mental development. This is because of the difficulties in establishing connections and identifying relationships between objects, subjects and events. Even in the least severe cases of ASD, a lack of sensitivity to the synthesis and literal transfer of information is observed, along with extreme "fixation and disengagement of attention" on a specific object, which could become the subject of endless scrutiny. This concentration leads to comfort and pleasure because it "puts in order" the cognitive constructs of the child. Obviously, the variety of relationships, emotions and contexts destabilises the ASD children, since the established cognitive order and routine is compromised. This push back is due to the chaos of their different perceptions. They lose clear orientation, which in turn threatens to destroy even the smallest "islets" of understanding and knowledge that they had up to that point so laboriously managed to build. DSM-5 criteria for diagnosing ASD [3] disclose one very important feature that has not been stated, but many psychologists are very familiar with. This is the inability of the autistic children to integrate information – from level of perception to the formation of a concept and understanding. That includes the capacity to filter incoming information in accordance with its significance. Ontogenetically, mental development builds up from the simple to the more complex. However, autistic individuals are not able to distinguish between what is simple and what is complex [10]. It is almost as if autistic behaviour serves as a defensive mechanism of the mind, preventing a total collapse upon the mass influx of daily perceptions. Because information is so great and children are not able to control or reduce it, this inevitably prevents the processes of synthesis and symbolisation. These constitute the foundations for thinking and understanding the world around us. An understanding, which for many constitutes a continuum and to a large degree is also an automated rationalisation of connections and relationships. However, for the autistic person, this is a major deficit, a source of strong fears, endless detailed scrutinising, fixation on single elementary sensations, repetition of the same actions and/or phrases that are obviously a safeguarding partial attempt – a source of security and temporary peace in this confused and incomprehensible, hence so scary autistic world.

Professionals face on a daily basis another often recurring phenomenon when interviewing parents about the detailed history of their child's development. This phenomenon even finds expression in the Autism Diagnostic Interview – Revised (ADI-R) [19], where there is a loss of developmental ability around 1 – 2 years of age. This is specifically questioned and meticulously noted. In our practice, there have been cases where we have seen early family videos that are usually shown in order to note that (according to parents) autistic children have not been born with the condition (i.e., it is related to the culpabilisation of the parents and the reaction to the loss of the expectation for having a healthy child). Without claiming the issue to be exhaustive, we usually detect presence of early autistic behaviours that parents either cannot recognise

because of poor knowledge, or they fail to "notice" and interpret them in a way that is emotionally acceptable. However, they frequently report such regression and loss of skills, including communication. For example, the baby used to pronounce syllables and used to point to the lamp around the age of one year, then gradually or suddenly shut down for a long time. The observations require more specific research and comparison of the personal history with the available videos or other evidence in the family records. We cannot fail to notice the obvious coincidence of the time period with the child's traditional enrollment in nursery or, more commonly, with the child's separation from the mother because of her return to work and the appearance of another caregiver to look after the child. In Bulgarian culture, these caregivers are usually grandparents, sometimes the father or a babysitter, which unfortunately often change in this important age period of attachment formation. Another coincidence observed in many cases is the birth of a new child in the family, a disease with subsequent hospitalisation and/or painful medical manipulations. On occasion, an incident with a strong fright for the child (for example a dog bite), has been reported. In those cases, parents tend to associate the inhibition/regression in development with the presence of some stressful element, including one that they suggest has happened, but have failed to notice in detail. In any case, the common thing is that this phenomenon is related to the separation from the mother, the relatives and the familiar environment. It could also be due to the emotional loss of the mother because of the appearance of a new baby, which requires her hourly attention. This would lead to a refusal to communicate at a very early stage in the mental organisation when there are still no formed adequate psychic defence mechanisms for coping. However, a biological fragility that has its genesis probably even prior to birth also needs to be taken a great account of. It is not uncommon to receive descriptions of spontaneous abortions and prolonged trials for conception through stimulation and *in vitro*. We have seen quite a few cases of *in-vitro* conceived twins (usually with mothers over 35 years of age), where one of the twins has been diagnosed with ASD, and in the other twin, a delay in development of the speech, fine motor skills and hyperactivity is observed, however, without the presence of communication difficulties. We realise that as clinicians we see problematic cases, but studies of *in vitro*-born children, often twins, are a new source of information that can lead to important discoveries about the autistic disorder and its relationship to the development of speech and language.

We cannot omit one observation that is repetitive in almost all cases of early neurodevelopmental disorders and is hardly typical only for countries with linguistic background significantly different from the Western, such as Bulgaria. This is the permanent demand of children with ASD to watch "Baby TV" for hours. Observations include: children "being absorbed" into the cartoons; isolated gesture imitations of the cartoon characters appear; reoccurring repetition of single words, phrases and/or song fragments; "emergence of speech" in English. It is also common that when the parent asks a question or gives an instruction in Bulgarian the child answers in English. We have also had cases of repetitive speech in German, Russian, and even Japanese when children watch cartoons in these languages. Perhaps it is a kind of "laxity" and fragmentation of the identifications that are often observed in autistic children, where these may be identifications with various objects (for example, the watching of a spinning top causes joy and the child starts turning around in resemblance to the movement of the spinner). Imitation of cartoon characters is frequent (animation, imitations of complex motion schemas, utterances with a corresponding intonation and phrases from the cartoon), but imitation of living people (parents, relatives or caregivers) rarely occurs. Of course, staying in front of the TV/computer/tablet/ cellular phone for hours is not recommended for any child, but we interpret the appearance of such imitations as a positive sign. Upon stopping of these activities and involving the child in groups of peers, it quickly begins to include in its repertoire initially fragmented imitations of the children around, with a tendency to later "unlock" also imitations of adult behaviour, as well as the gradual replacement of the English words with Bulgarian, when there is a persistence for the child to do so by the caregivers.

We often encounter in our practice a tendency among parents and educators to follow and not interfere with the autistic child's desire to continuously repeat activities of specific interest with or without an object. Parents and educators also often anticipate the child's desire for an object that is out of reach and give it to him, without asking for the child to point towards the object or furthermore to use simple words, such as "give" ("дай" in Bulgarian) or "come" ("ела" in Bulgarian). Unwillingness to gratify children's desires instantly teaches them to withhold impulses and develop self-regulation of behaviour. "Pressuring" can indeed lead to temporary negative experiences, but awareness of the language as means of getting interesting and desirable things is a good motivation for

future speech development. The repetition of words, which respond to their need for repetitiveness also contributes to the faster appearance of vocal imitation. Working with a mirror and giving instructions through it are proven to be more effective for the autistic children who strongly resist direct communication and engagement.

IMPLICATIONS OF PSYCHOLOGICAL ASSESSMENT TO THE PROCESS OF DIFFERENTIAL DIAGNOSIS – ILLUSTRATION THROUGH PROFILES

The study of international experience in the field of early psychological development and the analysis of a series of representative research efforts on this subject [20, 21, 22], indicate enhanced interest in the early tears by professionals and researchers representing the neo-Piagetian paradigm in psychology. The interest in the study of this period is twofold. On the one hand, it is due to the general tendency of decreasing the age of diagnosis in order to stimulate development and prevent the aggravation of future delay. On the other hand, it reflects the understanding of development as a dynamic and hierarchical process, characterized by consecutive stages, interrelatedness between the various components and multiple factors (biological, affective and social), which influence positively the dynamics of this process.

In their approach, contemporary authors have become increasingly eclectic combining viewpoints of various theoretical domains in order to make connections and explain phenomena of development (e.g. the psychoanalytic understanding of the meaning of affective mother-child relationship in the development of object relations and the connection with the cognitive "permanence of the object" construct development). This is the modern way to perceive and process information, which is guided by pragmatic principles aiming to maximise positive effects, regardless of the limitations of the theoretical framework. This is evident in the contribution of the neo-Piagetians in the study of the sensorimotor stage of J. Piaget [23]. Through the collected empirical material and the creation of a working toolkit for early assessment, the results are objective and allow for the comparison of the individual's abilities. This happens in regards to both the statistically determined norm, and the personal achievements, rhythm and progress of the individual's development, taking into account the importance of social interactions and emotional relationships, in which the child is involved.

In connection to the aforementioned tendency, the inter-university collaboration of research teams of clinical psychologists from Medical University – Sofia (Leader of the Bulgarian team: H. Manolova) and the UCL – Belgium (Leader of the Belgium team: N. Nader-Grosbois) in the period between 2000-2002 has brought forward the introduction of a comprehensive toolkit for assessment of early development of the child standardized with Bulgarian norms. The results of this study are embedded in the toolkit, while each achievement corresponds to a certain age of development (in months), in comparison to the normative group. Two scales for exploration of the sensorimotor period were introduced with high correlation between them:

"Scales for Assessment of Early Cognitive Development" adapted for Bulgaria by H. Manolova *et al*. 2004 (source: „Echelles d'Evaluation du Developpement Cognitif Precoce" (EEDCP), Nader-Grosbois, 1993, 2000 [20], revised version of the "Infant Psychological Developmental Scales" (IPDS), Uzgiris & Hunt, 1975 [24].

The tool comprises of seven scales corresponding to the seven areas of cognitive development in the sensorimotor stage:

- Visual Pursuit and the Permanence of Objects
- Means for Obtaining Desired Environmental Events
- Development of Vocal and Gestural Imitation
- Development of Operational Causality
- Construction of Object Relations in Space
- Development of Schemes for Relating to Objects

Results achieved are coded as sensorimotor substages (from I-st to VI-th), with an individual score corresponding to the approximate age of development in months [25] and a standard deviation between the chronological and the approximate developmental ages. It is possible to develop a cognitive development profile and calculate the mean age of cognitive functioning [26].

"Scales for Early Assessment of Socio-Communicative Development" adapted for Bulgaria by H. Manolova *et al*. 2004 (source: "Early Social Communication Scales" (ESCS), Seibert & Hogan, 1982 [27]; revised version and verification by Guidetti & Tourrette, 1993 [28], with the participation of J.-L. Adrien. Protocols: N. Nader-Grosbois 1993 [20].

The tool comprises of 8 scales corresponding to three communication functions (social interaction, joint attention, behaviour regulation) and three communication roles (response, initiation, maintenance). The focus of examination is on the following combinations between communicative functions and communicative roles:

- Responding to Social Interaction
- Initiating Social Interaction
- Maintenance of Social Interaction
- Responding to Joint Attention
- Initiating Joint Attention
- Maintenance of Joint Attention
- Responding to Behavioral Regulation
- Initiating Behavioral Regulation

Results are expressed in levels of development (0 - Reflex, 1 - Simple, 2 - Coordinated, 3 - Conventional-Gesture, 3.5 - Conventional-Verbal (one word); 4 - Symbol (two words) – as individual score and as age intervals of development (0-2, 3-7, 8-13, 14-21, over 22 months).

It is possible to develop a profile of communicative development and to calculate an average age of development [26].

The assessment using both tools is well researched and adapted to the study of children with ASD and children with developmental delays [11, 20, 21]. The availability of methods of assessing the main areas of development in children with autistic behaviour in early childhood contributes to the objectification of early diagnosis, and the nature of reporting results with emphasis on abilities rather than on deficits. This allows for labelling children and the occurrence of guilt-based experiences of parents to be avoided.

In addition to the basic assessment of the child's cognitive and socio-communicative development, it is possible to explore the psychomotor capacity and socio-emotional indicators (source: “Transdisciplinary Play Based Assessment” (TPBA), Linder, 1990 [29], modified version N. Nader-Grosbois *et al*. 2000 [20].

Scale for Assessment of Sensory Motor Development (TPBAmo), adapted for Bulgaria by H. Manolova *et al*. 2004 contains the following five categories: (1) a general aspect of movements; (2) tone, strength and endurance; (3) reactivity to sensory stimulation; (4) postures and displacements; (5) seizing and manipulation.

Scale for Assessment of Socio-Emotional Development (TPBAem), adapted for Bulgaria by H. Manolova *et al*. 2004 contains seven categories: (1) temperament; (2) motivation to learn; (3) interactions with a close adult; (4) interactions with the examiner; (5) peer interactions; (6) nuances of interactions; (7) mood.

Further explored is the adaptation of motor and emotional behaviours in relation to three criteria corresponding to three points of score coding: adapted (2), medium adapted (1), unadapted (0). The study of socio-emotional indicators in interactions with different figures helps to understand how communication with autistic children is facilitated or disturbed, depending on the emotional undertone.

In order to understand how the application of the two main assessment tools helps to derive the differential diagnosis at an early age, we offer some typical profiles of children with ASD in comparison to other neurodevelopmental disorders:

***Diagnosis in Bulgaria is based on: International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), World Health Organization (WHO) [30].**

1.1: N. – a girl aged 2 years and 9 months at the time of assessment **PDD – Childhood Autism** **Profile of Cognitive Functioning**							
No.	**Subscales**	**Sensorimotor stage**					
		I	**II**	**III**	**IV**	**V**	**VI**
I	Visual Pursuit and the Permanence of Objects						
II	Means for Obtaining Desired Environmental Events						
III a	Development of Vocal Imitation						
III b	Development of Gestural Imitation						
IV	Development of Operational Causality						
V	Construction of Object Relations in Space						
VI	Development of Schemes for Relating to Objects						

Average age of development: 13 months; range of cognitive functioning varies between 3 and 24 months.
Non-homogeneous profile of cognitive development, typical for children with PDD – Childhood Autism. Characteristically for the disorder, lowest results are scored on "Vocal imitation" and "Gesture imitation". Autistic features in communication and contact affect the formation of the "object social permanence" construct. An overall delay in the perceptual-representation domain is registered. Higher results are scored on scales that do not require social interaction but acquisition of "trial-error" experience, which is considered an indicator of good intellectual potential.

1.2. N. – a girl aged 2 years and 9 months at the time of assessment
PDD – Childhood Autism
Profile of social-communicative functioning

Parameter		Levels of socio-communicative development					
		0	**1.0**	**2.0**	**3.0**	**3.5**	**4.0**
Social Interaction	Responding to Social Interaction						
	Initiating Social Interaction						
	Maintenance of Social Interaction						
Joint Attention	Responding to Joint Attention						
	Initiating Joint Attention						
	Maintenance of Joint Attention						
Behavioural Regulation	Responding to Behavioral Regulation						
	Initiating Behavioral Regulation						

Average age of development: 8 months; range of functioning varies between IIIrd and IVth sub-stages
Significant delay in the overall social-communicative development in comparison to the level of cognitive functioning, which is considered typical for the disorder. Also typical are the low results on initiation and maintenance of social interactions. The child's readiness for "response" is a resource for successful individual interventions with an adult who initiates various therapeutic and educational interactions. Higher results on the "response to behavioural request" subscale reveals potential for improving initiation and rule-governed behaviour. A tendency for overall delayed response is manifested that should be considered when engaging the child in additional activities.

2.1. I. – a boy aged 2 years and 10 months at the time of assessment
PDD – Childhood Autism (severe form)
Profile of cognitive functioning

No.	Subscales	Sensorimotor stage					
		I	**II**	**III**	**IV**	**V**	**VI**
I	Visual Pursuit and the Permanence of Objects						
II	Means for Obtaining Desired Environmental Events						
III a	Development of Vocal Imitation						
III b	Development of Gestural Imitation						
IV	Development of Operational Causality						
V	Construction of Object Relations in Space						
VI	Development of Schemes for Relating to Objects						

Average age of development: 7 months; range of functioning varies between 2 and 15 months
Non-homogeneous profile of cognitive development, typical for children with PDD – childhood autism. Significant delay on subscales "object permanence", „vocal imitation" and "gesture imitation", which is considered characteristic for autism. Greater severity of the disorder leads to significant delay in experimenting with objects and "means–goal" integration. Assessment data is obtained indirectly, predominantly from the mother, because I. shows stereotyped repetitive behaviour and is easily frustrated with all attempts to interrupt him. The success in completing some of the tasks is due to the inclusion of materials he carries with him (buttons, a toy car, a bottle of water) as well as to the withdrawal of the examiner to a large distance after multiple demonstrations of the tasks. Once the child adapts to a particular behaviour, the child engages in stereotyped repetitions and protests against all attempts to be interrupted.

2.2. I. – a boy aged 2 years and 10 months at the time of the assessment
PDD – Childhood Autism (severe form)
Profile of social-communicative functioning

Parameter		Levels of socio-communicative development					
		0	**1.0**	**2.0**	**3.0**	**3.5**	**4.0**
Social Interaction	Responding to Social Interaction						
	Initiating Social Interaction						
	Maintenance of Social Interaction						
Joint Attention	Responding to Joint Attention						
	Initiating Joint Attention						
	Maintenance of Joint Attention						
Behavioural Regulation	Responding to Behavioral Regulation Initiating Behavioral Regulation						

Average age of development: 4 months, corresponding to II-nd sub-stage; range of achievements varies between 2 and 8 months

Significant delay in the overall social-communicative development in comparison to the level of cognitive functioning, which is considered typical for the disorder. Lower achievements in "initiation" and "maintenance", as well as greater delay in "joint attention" due to the severity of the disorder. Significantly better results in "response to social interaction" and "response to behavioural request" (observed in interaction with the mother) reveal potential for individual work with a specialist. There is a considerable delay in both gross and fine motor skills. Interests are poor and restricted. I. does not estimate correctly the sizes of objects and their position in space, as well as the position of his own body towards the objects. The child avoids social interaction and when insisted, covers his ears and pushes away the other person to a distance he considers acceptable. When interfered in manipulation with a desired object, he gives up on it in order to avoid contact.

3.1. V. - a boy aged 2 years and 2 months at the time of assessment

Developmental dysphasia

Profile of cognitive functioning

No.	Subscales	Sensorimotor stage					
		I	II	III	IV	V	VI
I	Visual Pursuit and the Permanence of Objects						
II	Means for Obtaining Desired Environmental Events						
III a	Development of Vocal Imitation						
III b	Development of Gestural Imitation						
IV	Development of Operational Causality						
V	Construction of Object Relations in Space						
VI	Development of Schemes for Relating to Objects						

Average age of development: 17 months; range of achievement varies between 4 and 22 months.

Homogeneous profile with notable delay in the "vocal imitation" subscale, as prerequisite for the disorder. Demonstrates interest in objects and manipulations with them. Initiates communicative actions in order to make the adult continue a desired activity. Stimulation in the areas of "object permanence" and "gesture imitation" will influence the better understanding and utilization of non-verbal means of communication in adult and peer interactions. Speech therapy and/or psychomotor interventions are required, combined with inclusion in structured child group activities after the age of 2.5 years.

3.2. V. - a boy aged 2 years and 2 months at the time of the assessment

Developmental dysphasia

Profile of social-communicative functioning

Parameter		Levels of socio-communicative development					
		0	1.0	2.0	3.0	3.5	4.0
Social Interaction	Responding to Social Interaction						
	Initiating Social Interaction						
	Maintenance of Social Interaction						
Joint Attention	Responding to Joint Attention						
	Initiating Joint Attention						
	Maintenance of Joint Attention						
Behavioural Regulation	Responding to Behavioral Regulation						
	Initiating Behavioral Regulation						

Average age of development: 20 months; range of functioning varies between 15 and 21 months

Generally higher achievements in the field of communication as compared to cognition. Psychomotor immaturity is observed, mainly in regards to spatial awareness and fine motor skills.

Due to the chronological age of the child and some age-specific behaviour related to separation anxiety, the child is overly sensitive to parents leaving the room. Parents have been consulted on how to apply in-home interventions in order to stimulate development. A re-assessment session has been scheduled after 3 months.

4.1. D. - a boy aged 3 years and 6 months at the time of assessment

Child born with hydrocephaly (post-operative)

Profile of cognitive functioning

No.	Subscales	Sensorimotor stage					
		I	II	III	IV	V	VI
I	Visual Pursuit and the Permanence of Objects						
II	Means for Obtaining Desired Environmental Events						
III a	Development of Vocal Imitation						
III b	Development of Gestural Imitation						
IV	Development of Operational Causality						
V	Construction of Object Relations in Space						
VI	Development of Schemes for Relating to Objects						

Average age of development: 16m.; range of achievements varies between 13 and 24 months
Homogeneous profile, typical in children with mental retardation and excluding a diagnosis of autism.
D. shows interest in the presented objects and follows simple instructions, demonstrates cooperation and willingness to participate in the activities. Spontaneously uses some words and multiple gestures to communicate with the examiner. Demonstrates pleasure in success with no manifestations of anxiety upon parents leaving the room, after being reassured that they will wait for him outside.

4.2. D. - a boy aged 3 years and 6 months at the time of assessment
Child born with hydrocephaly (post-operative)

Profile of social-communicative functioning

Parameter		Levels of socio-communicative development					
		0	**1.0**	**2.0**	**3.0**	**3.5**	**4.0**
Social Interaction	Responding to Social Interaction						
	Initiating Social Interaction						
	Maintenance of Social Interaction						
Joint Attention	Responding to Joint Attention						
	Initiating Joint Attention						
	Maintenance of Joint Attention						
Behavioural Regulation	Responding to Behavioral Regulation						
	Initiating Behavioral Regulation						

Average age of development: 21м; range of achievements varies between IV^{t} and Vth sub-stages
Generally higher communicative development compared to cognitive abilities, which excludes a diagnosis of autism. There is a significant overall delay that can be attributed both to the presence of early traumatic experiences and the limited child-rearing practices due to hospitalizations and medical interventions undergone by the child. Psychomotor skills are immature, with notable difficulties in balance and coordination, as well as in fine motor abilities. The "body scheme" has been developed – D. enjoys looking at his own image in the mirror and points to different parts of his body, but cannot "transfer" this awareness of the body parts to another person. It is appropriate to include the child in group activities with peers, where educational and therapeutic interventions consider the individual abilities of the child. Games with intense movements frustrate the child and he needs more time observing other children prior to engaging in mutual activities with them.

The elaboration of individual development profiles presented in graphical form, describes a general "picture" of the child's capacity, resources and delays in various areas. It illustrates the presentation of results to parents and makes it possible to compare profiles of children in assessment, which in turn enables the identification of clinical subgroups.

Due to the hierarchical model, in which tools and experimental tasks are organised, in concrete and clear steps that follow the natural dynamics of development, they could serve as a basis for the elaboration of individual and group therapeutic programs.

The re-assessment capability of the instrument allows for the tracking of individual progress for each case as well as adjustment of therapeutic goals in accordance with the needs and the capacity of each child.

Clinical experience illustrates that the presence of parents in the room during the assessment, facilitates the child's adaptation to the new setting and the unknown figure of the examiner. The observation of the process of examination has educational and therapeutic effect on parents and contributes to a better understanding of the child's condition. This in turn increases the opportunities for partnership between the clinical team and the parents. Generally, the presence of the parents accounts for the therapeutic effect of the evaluation of the child, which is taken into consideration within the dynamics of the assessment procedure.

CONCLUSION

In summary of our findings and ideas, the interest of the child clinical psychologist is focused on a very detailed assessment that can outline the available resources of each child (the already formed and reinforced mental constructs and skills). The focus is on the abilities, not on the deficits, because in order for a therapeutic program to succeed, it is necessary to start with what the child is already able to do. Too ambitious and, therefore, unrealistic goals that do not match individual abilities cause a negative experience of failure and can lead to a denial and/or even greater autistic isolation. In this respect, the above presented toolkit corresponds to the requirement for a detailed assessment of the mental development, which aims at identifying the available individual potential of the child.

The development of modern child psychiatry and clinical psychology, together with the demands of parental organisations, naturally call for an earlier discovery of the autistic disorder in order to prevent its aggravation. Clinical practices reveal the importance of working with parents and the positive effect of early therapeutic interventions in the child's development. The experience resulting from inter-institutional cooperation on individual cases (between medical, educational and social services) stimulates the implementation of a holistic approach to providing care to children with autistic behaviour. In order to build a truly individualised educational and/or therapeutic strategy, it is necessary to build upon the results from a sufficiently detailed and representative assessment of the mental functioning at specific given moments. This is a starting point for the future efforts of all actors engaged in providing care for children with ASD and other NDDs.

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