INCURSION ON LANGUAGE AND COMMUNICATION DISORDERS TO THE PRESCHOOL CHILD

Diana Alina BUGANU, PhD.
Ion Creangă University of Chișinău,
Republica Moldova
diana.buganu@gmail.ro

Abstract:*Language disorders are a problem of preschool age. The article makes an incursion on language disorders, describes the factors that condition their appearance, presents the classification of language disorders by authors in the field, the influence of language disorders on the child's personality, the need to advise parents of children with language disorders.The paper presents the results of preschoolers aged 5-7, participants in the finding experiment, on the segment examining the ability to pronounce and determining the psychological age of language development, by administering the Examination sheet (taken from speech therapy practice) and the Test for determining the psychological age of language development.*

Key words:*language disorder; triggers; intervention; parental counseling.*

1. Introduction

In the human development, as a superior biological organism from a cognitive and affective point of view, communication had a defining role. The efficiency of communication depends on the sender, the receiver, but also on a series of environmental factors that become part of the process. The ambient temperature, lighting, noise level may lead to partial reception of the message or its inadequate decoding.

A category of factors that actively intervene and will be taken into discussion are the biological and physiological factors that characterize the transmitter and receiver. Physical or mental fatigue affects communication. Moreover, the existence of physical ailments that affect the organs that form the individual communication infrastructure becomes a serious problem when we think about the perspective of communication efficiency.

Another set of elements, that constitute a separate group, are language and communication disorders. Speech does not appear by chance, or as a natural evolution, unaffected by anything, in the child's life (Păunescu, C., 1962).

Speech occurs as a result of the child's education and a normal development of the body. The learning and assimilation process is long, and success is determined by both the external environmental factors and also the health of the individual.

All parts of the phonatory apparatus participate in the formation of speech, generating an almost infinite number of possible phonemes (Kreindler, A., 1963).

The phonatory apparatus is set in motion by the nervous influx that is transmitted by the centres of the central nervous system. We cannot talk about communication without discussing the quality and health of the receiving device, consisting of the inner ear, with the special organs of hearing, the acoustic nerve and the auditory centre in the cerebral cortex.

Any damage to these parts is likely to disrupt communication and become a barrier, often extremely difficult to remove.

In childhood, a wide range of disorders of the process of organization and development of language can be diagnosed, determined by the following categories of factors (Toncescu, N., 1984).

- Neurogenic factors – micro- or macro-sequelae, brain injuries, pregnancy diseases, dystocia with asphyxia or obstetric trauma, encephalitis that occurred in the first years of life;
- Somatogenic factors – factors that delay somato-neuropsychic development, such as long-term chronic diseases, short-term infectious diseases during early childhood, repeated common infections, with debilitating potential;
- Psychogenic factors, such as abandonment and lack of stimulation, unfavorable environment for speech development, educational errors;
- Constitutional factors, highlighted by R. Luchsinger's studies led to the emergence of the notion of "language weakness", often hereditary, of the psychosomatic personality, in all dimensions of speech and language.

Any language disorder is a barrier to communication. Observing the existing difficulties in communication offers the possibility of a diagnosis and an early evaluation of the language.

Language disorders can occur on the background of a mental or sensory deficiency, but also on the background of a normal intellect, stating that in the case of deficiencies, the rate of occurrence of such disorders is higher.

The language disorders category includes all deviations from normal language, which may include both verbal and nonverbal or paraverbal communication.

Various classifications have been made on language and communication disorders.
In 1982, a classification is proposed that takes into account several criteria simultaneously, ie the anatomical-physiological, linguistic, etiological and psychological criteria: (Verza, E., 1982).

- ***Pronunciation disorders*****:** Dyslalia; Rhinolalia; Dysarthria;
- ***Speech rhythm and fluency disorders*****:** Stuttering; Logoneurosis; Tahilalie; Bradilalie; Altongia; Chorea-based disorders.
- ***Voice disorders*****:** Aphonia; Dysphonia; Phonastenia;
- ***Reading and writing language disorders:***Dyslexia-alexia; Dysgraphia-agrafia;
- ***Polymorphic disorders*****:** Aphasia; Alali;
- ***Language development disorders:*** Psychogenic mutism, of elective or voluntary type; Delay in general speech development.

Interventions to correct these disorders are made on a case-by-case basis, taking into account the type and severity of the deficiency, the level of mental development of the subject, his age, but especially the etiology of the disorder and its manifestations.

The causes that led to a language disorder cannot always be established with certainty, especially since it is often a combination of factors, the concentrated action of which led to this manifestation.

The causes that can lead to language and communication disorders in preschool children can be: (Verza, E., 1982)

- ✓ From the intrauterine period;
- ✓ From birth;
- ✓ From the postpartum period.

According to the Manual of Diagnosis and Statistical Classification of Mental Disorders, 5th edition (DSM-5, APA 2013), language and communication disorders are classified as neurodevelopmental disorders, ie disorders that occur and manifest mainly in childhood, with school and social repercussions.

According to this way of reorganizing and classifying language and communication disorders, the main categories are:

- ✓ Speech disorders;
- ✓ Speech sound disorder;
- ✓ Childhood-on set fluency disorder-stuttering;
- ✓ Social pragmatic communication disorder;
- ✓ Other non-specific language disorders.

It is accepted in the international scientific community that there is an interdependence between language skills and the development of mental operating skills (H.Sinclair), verbal behavior changing over time, in line with the evolution of cultural and educational development, with age, motivation and affectivity. Man's degree of culture gives him a certain style, related to logic, fluidity, coherence (Verza, E., 1977).

A distinction can be made between language disorders, starting from the following elements:

- Symptomatology – with reference to the pace of language and speech acquisition, which is usually slowed down by the rules;
- Etiology – the appearance of delay in the absence of sensory, neural, intellectual disabilities or educational deficiencies; the etiological factor of the delay in language development is in this case cerebral dysfunction (Verza, E., 1977).
- Response to intervention – following the implementation of a speech therapy therapeutic program, there is a rapid evolution in language development;
- Difference between chronological age and language development (maximum 1-2 years);
- Delay in language development is corrected until school age (does not persist after entering first grade).

An accurate diagnosis is based on an interdisciplinary assessment, as there is no single medical or psychological test for an accurate diagnosis.

The evaluations are of several types:

- ***Screening*** evaluation, which involves identifying children who could develop the disorder, so that they can then be assessed more complexly in order to prevent;
- ***Focus*** evaluation, that is, the evaluation of a specific area of operation;
- ***Diagnostic*** evaluation, which is based on a detailed assessment of strengths and weaknesses in a number of areas such as cognitive, language, behavioral, school, emotional and social areas;
- ***Counseling and rehabilitation*** assessment, for optimizing the child's abilities, in order to assume and perform daily tasks and responsibilities;
- ***Problem solving*** evaluation, targeting specific issues that may arise and occur over several stages.

Very often, the delay in language development can be associated with another type of disability, and recovery cannot be complete until the child reaches school age (class I), often it can never be fully recovered, so it is considered a Delay in language development those situations when recovery is complete until school age and is established as a diagnosis when it comes to specific language disorders not associated with a pathological picture. If the symptoms persist, another diagnostic setting is established.

In young children, the diagnosis is extremely difficult because there is a possibility of confusion with some behaviors accepted as normal, as well as the possibility of misunderstandings among parents. In this case, the observation of the specialist is very important, ie the existence of a set of behaviors that make the child to be significantly different from those who have the same biological age must be taken into account.

The conduct of parents who have such children usually falls into one of the following patterns:

- Parents accept the difference in temperament of the child, have a more relaxed approach and continue to educate him and give him all the affection;
- Parents feel overwhelmed by the situation, lose control over the child's educational approach, begin to feel a sense of failure;
- Parents look for solutions to control the child's inappropriate behavior and force him to follow the rules.

From the point of view of communicative behavior, problems may appear at the level of expressive speech, social language, comprehension, with reflection in:

- Maintaining the subject of communication – speech deviates from the main subject;
- Information presentation problems - sequential presentation;
- Achieving agreement with social norms - communication is in disagreement with these rules;
- Problems receiving and processing messages - difficulty understanding larger stretching instructions;
- Memory difficulties - incorrect retention of parts of the message;
- Difficulties in expression - formulating the answers to the open-ended questions puts the subject in difficulty.

Interventions are aimed not only at reducing symptoms, but also at improving academic and social functioning, which will be evaluated directly both before and after treatment.

In order to be as effective as possible, intervention strategies should be implemented as close as possible to the target behavior (Olărescu, V., 2008).

Through intervention strategies, in order to increase the chances of success, it is absolutely necessary to adopt and implement adapted educational methods, supported by family and individual counseling, in-depth knowledge of children's personality because it is necessary a permanent adaptation to psychological, physical, socio-cultural development of students.

We initiated an experiment in which preschool children participated, aged between 5-7 years with speech disorders (pronunciation-polymorphic dyslalia) and children with typical development, respectively 80 (group D) and 70 (group N). Next we refer to the results received in the segment of *examining the ability to pronounce and determining the psychological age of language development,* by administering *the Examination of the ability to pronounce* (taken from speech therapy) and *the Test for determining the psychological age of language development*

Description of methods.

Pronunciation ability sheet (taken from speech therapy practice)

Purpose: delimitation of pronunciation disorders of Romanian sounds (consonants)

The file was taken from the current speech therapy practice and allows the detection of dyslalic disorders, by going through a list of words. The speech reflected at the level of some words in which the targeted sounds are in the initial, median, final position is examined. In the rating, for each sound investigated, 1 point can be awarded in case of a wrong pronunciation. If the sound is omitted or replaced, 2 points can be awarded. If the sound is pronounced correctly, no points are awarded. For dyslalic disorders, in total, a maximum of 40 points can be obtained.

Alice Descoeudress test, to determine the psychological age of language development

Purpose: assessment of the psychological age of language in relation to chronological age

The instrument consists of 7 samples, which can be administered to children aged 3-7 years, the tests being structured according to the following aspects of language investigation

[2]: (1) *Opposite proof with support* (with objects and images); (2) *Gaps test* (to fill in gaps in a spoken text); (3) *Number series test* (repeat numbers – serial elements); (4) *Subjects test* (knowing 6 subjects); (5) *Proof of opposites without objects and images* (antonyms knowledge); (6) *Colours test* (naming of 10 colors); (7) *Verbs test* (knowledge of the meaning of verbs mimicked by the examiner). Having the values made by the child at all tests, we will compare them with those in the test standard and note the corresponding ages reached by the subject in each test, their sum will be made, which will be divided by the number 7, resulting in the psychological age of the language. assessed. The psychological age of language may or may not coincide with the chronological age of the child (Stănică, C., Vrăjmaș, E. 1994).

Results of the Pronunciation Ability Examination Sheet

*Purpose:*diagnostic classification of pronunciation disorders in the category of polymorphic dyslalia, in the case of subjects with language disorder and the exclusion of typical subjects from this diagnostic category.

Working hypothesis: we assume that only preschoolers with language disorder will commit imperfections in the pronunciation of sounds (consonants) of the Romanian language, typical preschoolers do not show any impairment of their ability to pronounce.

Each evaluated subject had the task of repeating the list of words after the examiner, in order to delimit the specific articulation problems. The results of the evaluation indicated that all subjects showed a pronunciation disorder in the second joint area (located between the dental arch and the middle palatal region), such as: sigmatism (100%), rotacism (82.5 %), lambdacism (17.5%) etc. To a lesser extent, the subjects presented pronunciation disorders on the first and third articulation area (labio-dental region and velo-palatal region): phytacism and vitacism (15%), capacism (12.5%), gamacism (10%), hapacism (5%) etc.

In the rating of pronunciation disorders, aspects such as omission or replacement of sounds were taken into account (in which case the subject did not purchase the correct sound setting model, on the corresponding articulation area), as well as the pronunciation disorder characterized by sound alteration or its pronunciation is incorrect (in which case the sound setting pattern is incorrect, but occurs on the specific articulation area).

We present below the results obtained in the sample of preschoolers diagnosed with polymorphic dyslalia (group D).

Table 1. Frequency of dyslalic disorders by joint regions – *Pronunciation ability sheet,* lot D

	Frequency	*Percentage*
Dyslalia in the first joint region	15	18.75
Dyslalia in the second joint region	80	100
Dyslalia in the third joint region	17	21.25

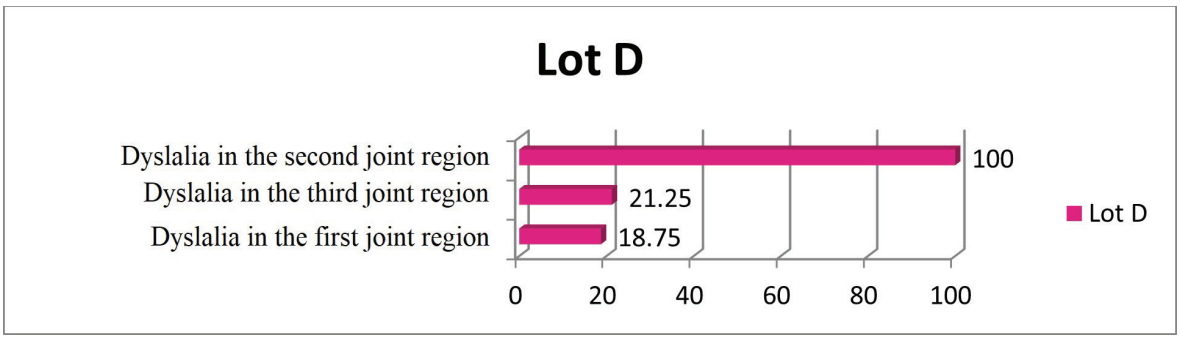

Figure 1. Distribution of dyslalic disorders by joint regions, group D

The examined preschoolers presented dyslalic disorders that were distributed on all three articulation areas, which are delimited as follows:

- articulation area I, specific for the pronunciation of sounds: P, B, M, F, V;
- articulation zone II, specific for the sounds: T, D, N, S, Z, Ş, J, Ţ, Ce / Ci, Ge / Gi, L, R;
- articulation area III, specific for the sounds: C, G, H.

As can be seen in the table presented above, as well as in the corresponding graphical representation, all subjects (100%) showed a form of dyslalia that could be included in the articulation zone II; and depending on the sound affected, 100% of the subjects showed a form of sigmatism or parasigmatism (omission, replacement or alteration of the pronunciation of the sounds S, Z, Ş, J, Ţ, Ce / Ci, Ge / Gi). Another important percentage of subjects (82.5%) showed either rotacism or pararotacism. A smaller percentage of subjects were detected with lambdacism or paralambdacism (17.5%). In a few cases, preschoolers showed paradeltacism (2.5%) and paratetacism (1.25%)..

From the perspective of the other two articulation areas, smaller proportions of subjects were registered, respectively 18.75% of preschoolers showed dyslalic disorders within the first articulation area, as well as 21.25% of preschoolers showed a form of dyslalia within the third joint area.

Thus, 15% of preschoolers showed phytacism / parafitacism or vitacism / paravitacism, and 3.75% of subjects presented parabetacism. On the other hand, 12.5% of preschoolers showed capacism / paracapacity and 10% had gamacism or paragamacism. Only 5% of the subjects were detected with hapacism.

By assigning scores to each subject, after affecting the pronunciation or after omitting / replacing the targeted sounds, the raw scores of the subjects with TL were obtained. The maximum score in this test was 40 points. The average gross scores of the subjects had the value of 10.20 points, and the variability of the scores around this average value was + 3.38 points. Given these values, we consider that group D is sufficiently representative in terms of the presence of polymorphic dyslalia.

Tabel 2. The average value of the gross scores on polymorphic dyslalia in group D

		No. of subjects	*Gross average*	*Standard deviation*
Dislalie polymorph	***Lot D***	80	10.2000	3.3843

The examination form was also applied to typical preschoolers, but the results of the evaluation did not indicate any pronunciation disorder, which places them within the limits of the normal ability to pronounce the sounds of the Romanian language.

We also mention the fact that, with the examination of the pronunciation capacity at the level of the word list, the anatomo-functional integrity of the phono-articulatory apparatus was verified, but no pathologies were reported at the level of the two groups. Also, no damage was found in the auditory function, this being within the limits of normality in both samples of the research.

The results of the Alice Descoeudress Test, for determining the psychological age of language development

Purpose: assessment of the psychological age of language in relation to chronological age

*Working hypothesis:*There are significant differences between preschoolers with pronunciation disorders and typical preschoolers in terms of the psychological age of language development.

The analysis of the results of the two categories of subjects in these tests, respectively the delimitation of ages on the indicators of language development, corresponding to each test, revealed slight lags in the performance of preschoolers with polymorphic dyslalia, compared to the performance of typical preschoolers. indicators. The outcome distribution curve in preschoolers TL is below the outcome distribution curve in typical preschoolers, as shown in the graph below, suggesting a delay of approximately half a year in preschoolers with polymorphic dyslalia. *We mention the fact that, in order to graph more accurately the ages at this level, we agreed to note each month of a year with the value 0.084, given that one year is equivalent to a conventional unit.*

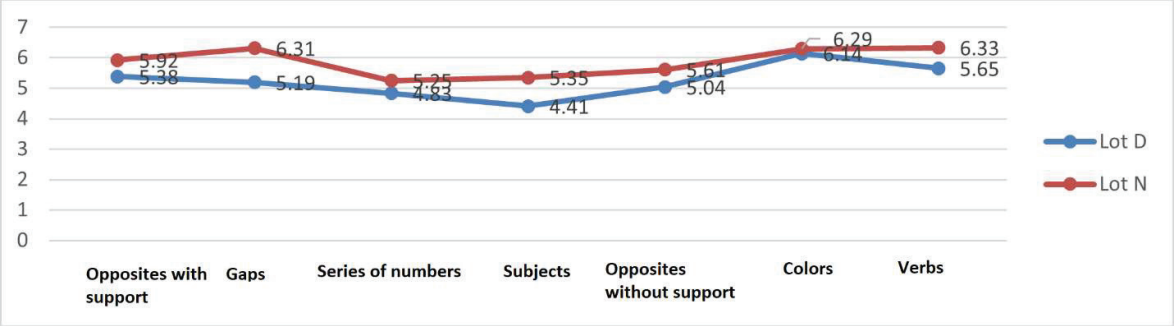

Figure 2. The curve of the psychological age of the language, at the tests of the test*Alice Descoeudress,* lots D and N

From the perspective of typical preschoolers, a series of superior performances were highlighted at the level of language age indicators, which correspond to a level of development of over 6 years: in the Lacune test the average value was M = 6.31 (while in preschoolers TL-M = 5.19), the test Colors M = 6.29 (preschoolers TL –M = 6.14), and in the test Verbs the average value was M = 6.33 (preschoolers TL - M = 5.65) .

In these three tests, preschoolers with TL performed slightly lower than typical preschoolers, but corresponding to the limit of normal language development. The tasks in which the children named colors, had to fill in the gaps, based on the clues suggested by the context or had to specify the actions performed by the examiner (verbs), especially those that represented actions in everyday life, were easier to be done by preschoolers in both categories.

At the other tests of *A. Descoeudress test*, the performances of typical preschoolers were within the language age range of 5-6 years: at the test *Opposites with support* (objects and images) the average score was M=5,92 (for preschoolers with TL - M=5,38), at the test *Opposites without support,* M=5,61, (for preschoolers with TL - M=5,04), at test *Series of numbers* (number memory) M=5,25, (for preschoolers with TL - M=4,83), at test *Subjects* - M=5,35 (for preschoolers with TL - M=4,41). Preschoolers with pronunciation disorders had slightly lower performance than typical in the tasks of delimiting the opposite term (antonym), both on the basis of concrete support (objects, images corresponding to the notions conveyed in the task), and especially without support, and tasks retention of a series of digits (auditory memory). Also, the indication of the materials from which certain objects are made (such as shoes or the window) raised some problems especially for the subjects in group D.

By applying *t test* for independent samples (unequal groups) the difference was generally statistically significant between the averages recorded in the component samples of

the *A.Descoeudress test*, respectively the language age indicators, by the two categories of subjects.

The following values of the *t test* were recorded: in the *Opposites with support* test t = 3.943, in p = 0, in the *Gaps test* t = 10.679, in p = 0, in the *Number series test* t = 3.832, in p = 0, in *Subjects test* t = 6.033, at p = 0, at the *Opposites without support test* t = 4.347, at p = 0, at the *Verb test* t = 8.123, at p = 0. In the *Colors test* the value t = 2.029, at p = 0.044, suggests similar performances, but without a statistically clear difference.

The Levene f test values were insignificant in all cases, f having values between 3.124 - 0.114, at a significance threshold between 0.079 - 0.475, the condition of homogeneity of the variants being satisfied in the case of the two groups.

Overall, the language development of preschoolers with polymorphic dyslalia is generally within normal limits, but performance is lower compared to typical preschoolers in all language age indicators.

Performing an average of the performances on all the 7 samples of the A. Descoeudress test, we delimited the psychological age as the language, which we related to the average chronological age, in both categories of subjects. The average values of the chronological age were very close in the subjects from the two groups, for typical preschoolers being 5.5 years (with $\sigma = 0.336$), while for preschoolers with TL of 5.59 years (with $\sigma = 0.292$) , which suggests a similar structure of the two samples, in terms of chronological age values.

In the case of typical preschoolers the psychological age of language was 5.9 years (with $\sigma = 0.230$), and in the case of preschoolers with polymorphic dyslalia of 5.27 years (with $\sigma = 0.295$). Hence, in the case of typical preschoolers, a psychological age of language higher than the average chronological age, the advance being almost half a year in language development. For preschoolers with polymorphic dyslalia, the average value of the psychological age of language is close to the average chronological age, but with a slight lag behind the development of language compared to chronological age (5.27 years compared to 5.59 years)

The value of the *t test* for independent samples at the level of the average chronological age was statistically *insignificant* (t = -1.708, at p = 0.09), while from the perspective of the psychological age of the language the value of your test was *significant* (t = 14.370, p = 0).

Levene f test values were insignificant in both cases (at chronological age f = 3.060, at p = 0.082, and at psychological age of language f = 2.178, at p = 0.142), the condition of homogeneity of variances being met in these cases .

In the case of the psychological age of language we calculated the *d Cohen* indicator to delimit the *effect size* between the presence of polymorphic dyslalia and the psychological age of the language in preschoolers in group D. The calculated value of the *d Cohen indicator* was d = 2.35, which denotes a relationship of very strong level between the presence of polymorphic dyslalia and the age of language development in preschoolers with pronunciation disorders.

The results of this test confirmed the truth value of the working hypothesis which states that *there are significant differences* between preschoolers with TL and preschoolers with typical development in terms of psychological age of language development.

Conclusions

The evaluation of the language by applying the speech therapy file highlighted a multitude of problematic sounds, which allowed the display of the diagnosis of language disorder - polymorphic dyslalia. Significant differences were identified in the psychological age of language through the A.Descoeudress test, in the sense that, although the two groups do not differ in terms of chronological age, the age of language is slightly ahead of preschoolers with typical development, in while in preschoolers with polymorphic dyslalia

the age of the language is slightly lower than the chronological age. From this point of view, the language development of preschoolers with pronunciation disorders is generally within the values of the standard indicators of language development, but the performance is lower, compared to preschoolers with typical development, in all indicators of language age.

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