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Stimulation for psychomotor and language development in children under five years of age who attend the "Sendero de Alegría" rehabilitation center

Estimulação do desenvolvimento psicomotor e da linguagem em crianças menores de cinco anos que frequentam o centro de reabilitação "Sendero de Alegría"

Estimulación para el desarrollo psicomotor y de lenguaje en los niños y niñas menores de cinco años que asisten al centro de rehabilitación "Sendero de Alegría"

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Application of a program of Language Therapy and Physical Therapy for children that allows knowing their psychomotor development and how the acquisition of experiences and their generalization begins from the moment of birth.
Originality/value:
This article allows us to know the difficulties that may arise in 5-year-old boys and girls in the psychomotor and language area and its added value is that an individual plan is developed for children with difficulties.

ABSTRACT

The application of the Language Therapy and Physical Therapy program for children who attend the "Sendero de Alegría" Rehabilitation Center, the general objective was to apply a Language Therapy and Physical Therapy program for children under five years of age. who attend the aforementioned Rehabilitation Center located in the Orillas del Zamora park in the City of Loja, where with the help of the analytical, descriptive, deductive and synthetic method, it is possible to have a clear idea of the psychomotor development of how the acquisition of experiences and their generalization by the child, begins from the moment of birth. The simplest conditioned reflexes that are formed in children from the first days of life and encompasses comprehension, communication and behavior skills, all united to achieve the motor, cognitive, social and language development of the child where the latter is a complex function. that allows expressing and perceiving affective states, concepts, ideas, etc., through acoustic or graphic signs. To obtain information regarding the issue raised, instruments were applied such as: Clinical History, which was addressed to parents; The Psychomotor Evaluation, Articulation Examination Sheet, was carried out with the children to diagnose the psychomotor and language problem they have, this information allowed to reach the diagnosis and develop an individual program for each patient, taking as a sample for the development of the descriptive-explanatory research to 5 children.

Keywords: Stimulation, psychomotor development, language dimensions.

RESUMO

A aplicação do programa de Fonoaudiologia e Fisioterapia para crianças que frequentam o Centro de Reabilitação "Sendero de Alegría", teve como objetivo geral aplicar um programa de Fonoaudiologia e Fisioterapia para crianças menores de cinco anos que frequentam o referido Centro de Reabilitação localizado no parque Orillas del Zamora na cidade de Loja, onde com a ajuda do método analítico, descritivo, dedutivo e sintético, é possível ter uma ideia clara do desenvolvimento psicomotor de como a aquisição de experiências e sua generalização pela criança, começa desde o momento do nascimento. Os reflexos condicionados mais simples que se formam na criança desde os primeiros dias de vida e englobam habilidades de compreensão, comunicação e comportamento, todos unidos para alcançar o desenvolvimento motor, cognitivo, social e de linguagem da criança onde esta última é uma função complexa. expressar e perceber estados afetivos, conceitos, ideias, etc., por meio de signos acústicos ou gráficos. Para obter informações sobre a questão levantada, foram aplicados instrumentos como: História Clínica, que foi dirigida aos pais; A Avaliação Psicomotora, Ficha de Exame da Articulação, foi realizada com as crianças para diagnosticar o problema psicomotor e de linguagem que apresentam, esta informação permitiu chegar ao diagnóstico e desenvolver um programa individual para cada paciente, tomando como amostra para o desenvolvimento do descritivo -pesquisa explicativa para 5 crianças.

Palabras clave: Estimulação, desenvolvimento psicomotor, dimensões da linguagem.

RESUMEN

La aplicación del programa de Terapia de Lenguaje y Terapia Física para niños y niñas que asisten al Centro de Rehabilitación "Sendero de Alegría", se planteó como objetivo general aplicar un programa de Terapia de Lenguaje y Terapia Física para niños y niñas menores de cinco años que asisten al Centro de Rehabilitación antes mencionado ubicado en el parque Orillas del Zamora de la Ciudad de Loja, donde con la ayuda del método analítico, el descriptivo, deductivo y método sintético se puede tener una idea clara del desarrollo psicomotriz de cómo la adquisición de experiencias y su generalización por parte del niño, comienza desde el momento del nacimiento. Los reflejos condicionados más sencillos que se forman en los niños desde los primeros días de vida y engloba capacidades de comprensión, comunicación y comportamiento, todos unidos para conseguir el desarrollo motor, cognitivo, social y de lenguaje del niño donde este último es una función compleja que permite expresar y percibir estados afectivos, conceptos, ideas, etc., por medio de signos acústicos o gráficos. Para obtener información en cuanto al tema planteado se aplicaron instrumentos como: Historia Clínica, la cual fue dirigida a los padres; la Evaluación Psicomotriz, Ficha de Examen de Articulación, se la realizó con los niños para diagnosticar el problema psicomotriz y de lenguaje que poseen, esta información permitió llegar al diagnóstico y desarrollar un programa individual para cada paciente, tomando como muestra para el desarrollo de la investigación descriptiva-explicativa a 5 niños.

Palavras-chave: Estimulación, desarrollo psicomotor, dimensiones del lenguaje.

INTRODUCTION

Putting into practice the postulates of the descriptive-explanatory research, a proposal for individual work planning is elaborated that is expected to contribute to the improvement of the Psychomotor and Language Development of the children of the "Sendero de Alegría" Rehabilitation Center.

With the application of technical instruments it will allow to have reliable results, and the realization of a treatment plan that facilitates the intervention in an organized way, providing as well as recommendations to maintain communication with the parent-therapist to obtain better results within the therapy; and, develop a treatment plan according to the individual needs of the child, thus leading me to carry out this action-participation research work called "Stimulation program for psychomotor and language development in children under five years", whose guidelines are part of a thorough study of the following specific objectives:

- Collect informational data from people with educational needs who are going to receive attention in physical and speech therapy, whose data will be a reference for the respective follow-up according to the case.
- Evaluate the type of psychomotor or language disorder that children suffer from who attend the Center carry out a planning or work schedule in front of to each case.
- Disseminate the results of the stimulation program to the students of the career of Psychorehabilitation and Special Education of the National University of Loja.

For theoretical support, three important points were considered:

The first refers to Early Stimulation, concept, approaches and Stimulation Programs.

The second contains a definition of psychomotor skills, history, motor development, motor development in the first 6 years of life, benefits of psychomotor skills for children and psychomotor development disorders. Third, Language, concept, dimensions of language, Early stimulation of language and speech communication, Importance of language development in babies, language acquisition processes and stages of language development.

Points that with their different steps to follow are contrasted with the existing reality in the "Sendero de Alegría" Rehabilitation Center in the city of Loja, that is, a combination between theory and practice. Then with the help of the analytical method, the descriptive, the synthetic and the deductive method that helped me to catalog the results obtained from the instruments used such as the Clinical History, Psychomotor Evaluation, Articulation Examination Sheet, and take the sample of 5 (five) male children under five years of age cared for in the center to subsequently develop the proposed proposal based on all of the above.

LITERATURE REVIEW

We call Early Stimulation any activity of contact or play with a baby or child that promotes, strengthens and develops their human potential adequately and opportunely. (Arango, 2013).

It takes place through the useful repetition of different sensory events that increase, on the one hand, emotional control, providing the child with a sense of security and enjoyment; and on the other, they broaden mental ability, which makes learning easier, since they develop skills to stimulate themselves through free play and the exercise of curiosity, exploration and imagination. (Gonzalez, 2007)

Early stimulation approaches

Stimulation with the purpose of empowering boys and girls, can be directed:

- o Stimulation focused on activities and/or experiences.
- o Stimulation focused on specific experiences and/or projects.
- o Unisensory and/or multisensory stimulation.
- o Purely intellectual stimulation oriented towards various aspects of development.
- o Stimulation focused on areas of development and/or spaces or fields of learning.
- o Stimulation based on constructivism or on a transmission-acquisition of knowledge.

Stimulation programs

They are aimed at the child in the early stages of life, mainly from the prenatal stage until the age of 4 or 6, depending on the case, since in these early ages the fundamental and priority capacities develop and mature: language, sensory, physical, psychological, although they will be carried out in a global way. (Zarate, 2012)

It is a vital period, characterized by a powerful evolutionary rhythm, where the adaptability of the nervous system and the brain is a determining factor for subsequent development. For this reason, it must be possible for the child's first experiences with the outside world to guarantee the maximum global development of all his abilities. (Gonzalez, 2007)

Psychomotricity

The acquisition of experience and its generalization by the young child begins from the moment of birth. (Gómez, 2008) indicates that they are the simplest conditioned reflexes that are formed in children from the first days of life, since they are primary functional formations that reflect the generalized experience of the activity. These processes of manipulation with objects begin to form different actions in the child. (Moreno, 2015)

Manual creation procedures reflect the child's own functional experience and are in principle indistinguishable from the unit of generalization, that is, from the conditioned reflex. The difference between these procedures is purely quantitative. (Barroso, et al., 2007)

Action procedures that are not strictly related to the object and that are generally carried out in the form of concrete motor influences on objects carry the generalized experience of the corresponding activity. The term action procedure distinguishes the aspect of the external activity. Depending on the existence of one or another procedure of actions, one can judge about the reflection of the experience of the corresponding activity in the child's brain and about the existence of a certain level of generalization of this experience.

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Motor development

Child motor skills can be divided into two large categories (Madrona, 2008):

1. Postural and gross motor: such as raising the head and keeping it upright, crawling, sitting, standing, walking and running.

2. Those of fine motor skills: such as grasping and manipulating an object using palmar pressure or pincers, grasping or releasing it by tensing or relaxing the muscles of the hand.

Learning to sit, stand, walk and acquire grasping skills and manipulation of objects constitute evolutionary milestones for the child that affect development as a whole. When the child learns to walk, it is a way of changing his life since he will be able to self-generate a greater amount of stimuli, he will gain autonomy and he will have another perspective on life.

Motor development follows two patterns for the achievement of skill mastery: the cephalo-caudal and the proximo-distal. (Field, et al,. 2011). The cephalo-caudal pattern establishes that in the conquest of motor skills, mastery of the head is first acquired, then the trunk and arms, later the legs and finally the feet and fingers. That is, this domain goes from top to bottom.

The proximal-distal pattern establishes that mastery of motor skills begins from the center to the sides; first mastery is gained over the head and trunk, then the arms, then the hands and finally the fingers. These two patterns of skill acquisition are important to consider in order to understand the evolutionary development of the child, and to plan learning experiences.

Benefits of psychomotor skills for children

Essentially, psychomotricity favors the physical and mental health of the child, as it is a technique that will help them control their body movement in a healthy way, improving their relationship and communication with the world around them. It is aimed at all boys and girls, normally up to 7 years of age, and in special cases it is recommended for those with hyperactivity, attention and concentration deficits, and integration difficulties at school.

Psychomotor development disorder

Disorders of psychomotor development are very difficult to define. They always reflect alterations in which various aspects of the child's development are affected; hence the importance of intervening as soon as possible, since the disorder can have a negative impact on other areas of the child, aggravating and compromising the child's development.

Language

Language is a complex function that allows expressing and perceiving affective states, concepts, ideas, etc., through acoustic or graphic signs. The function of language supposes:

A system of rules: because the language is the one that specifies the way to use the verbal material to signify (symbolize) the external or imaginary reality. The materialization of this system of rules in concrete behaviors of speech and writing. (Bruner, 1975).

It is the most characteristic feature of the human species and is distinctive with respect to other species. All animal species have behaviors to communicate, but in none of them can we find anything similar to language. By language we must understand "that complex function that allows expressing and perceiving affective states, concepts, ideas, through acoustic or graphic signs". The functions of language are communication and representation. Language enhances cognitive development, and vice versa. Language is acquired in and through the social environment; The social environment, in turn, conditions the type of language, which can be affected by affective deficiencies.

Language dimensions

According to Sánchez (2016), language presents three fundamental dimensions:

Content: It is its meaning or semantics; the linguistic representation of what a person knows about the world.

Form: the form of language can be described in terms of the units of sounds, which makes up phonology; of the minimal units endowed with significance, an aspect studied by morphology; and the way in which units with meaning are combined with each other to form sentences, which is the object of syntax.

Use: The use of language presents two fundamental aspects. The first is the purposes or functions of language: the reasons why people speak. The second is the influence of context, which affects the way individuals understand language and choose different linguistic forms to achieve their ends.

Language acquisition processes

Language is learned in the home naturally through the continuous interaction between the parents and the baby and the various stimuli in their immediate environment. According to Mendel's research, children explore the use of language without the need for any formal instruction and are able to select words to express their purposes.

The language acquisition process, which takes place when the child accesses speech, is favored by the stimuli and positive responses offered by parents in each attempt at oral expression. Parents achieve naturally, and with a positive and accepting attitude toward attempts and approaches of their children, that they express themselves freely and spontaneously.

Stages of language development

Mandel describes the stages of language development, emphasizing that there are individual differences that must always be considered:

0-1 years	Children babble and play with sounds. After the sixth month, infants select those sounds that obtain the greatest response from the adult.
1-2 years	They initiate rapid language development. imitation is important at this stage. They begin to combine two words to pronounce
2-3 years	They have already learned about a thousand words. They develop more complex constructions and use many words to describe an idea.

3-4 years	Complete sentences with the inclusion of pronouns, adjectives, adverbs and plurals. It's time to generalize the rules for describing an idea.
4-5 years	They use grammatically correct sentences, enjoy talking about their lives, describing actions and demonstrating a good level of
5-6 years	Their language is close to that of an adult. They use idioms. They are creative and fun in the use of language.

METHODS

The present work is an Explanatory Descriptive Investigation and the observation technique was necessary, which allowed us to have a conception of the social and cultural reality of the Sendero de Alegría Rehabilitation Center, through the direct interview with the parents, general data was obtained. which were of vital importance for the process of data collection, planning, organization and execution of this research work.

The selected population is made up of children with mental retardation from the "Sendero de Alegría" Rehabilitation Center, which has a statistical universe of 72 among children, youth and adolescents, for which all children with psychomotor and language problems of 0 to 5 years. All the proper ethical procedures were followed during the course of the research, data collection and article redaction.

RESULTS

The informative data of the children under five years of age who received care in physical and language therapy were the following:

Question #1 development of pregnancy

Table No. 1

Alternatives	**Frequency**	**Percentage**
normal development	1	20%
Advanced age of the mother during pregnancy	0	0%
Attempted abortion	2	40%
Diseases during pregnancy	1	20%
Trauma	1	20%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

Analysis and Interpretation:

From the results obtained from 5 investigated mothers, it can be indicated that 1 mother representing 20% had a normal development during pregnancy, 2 mothers that constitute 40% presented an abortion attempt, 1 that represents 20% had diseases during pregnancy and 1 mother that means 20% presented traumas, as can be evidenced the development of the pregnancy of the mothers of the children in a large percentage I present complications such as trauma, diseases such as rubella during the first months of pregnancy, abortion attempts, among others, which had a significant impact on the existence of a good physical and psychological condition of the mother to carry a pregnancy under normal conditions.

Question #2: Type of delivery

Table No.2

Alternatives	Frequencies	Percentage
Cesarean	4	80%
Induced	0	0%
Normal	1	20%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

Analysis and Interpretation:

The study carried out on 5 mothers indicates that 4 investigated mothers corresponding to 80% gave birth by cesarean section and only 1 mother corresponding to 20% had a normal delivery; Of the group in the population investigated, it was found that a large part of the patient underwent a cesarean section at the time of delivery, which could have influenced the existence of some type of pathology in the newborn, and only a low percentage had a normal delivery.

Question No. 3 Obstetric Conditions

Table No.3

Alternatives	Frequencies	Percentage
Intrauterine hypoxia	4	80%
Anoxia (Cyanosis)	0	0 %
None	1	20%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

The study carried out indicates that of 5 cases, 4 of the neonates corresponding to 80% presented intrauterine hypoxia and only 1 newborn that indicates 20% did not present any pathology, as can be seen, the majority of patients presented intrauterine hypoxia, which could have an impact on the normal development of the newborn, a minority did not present obstetric problems.

Question No. 4 held the head

Table 4

Alternatives	Frequencies	Percentage %
2-3 month	0	0%
4-5 month	4	80%
6-12 months and up	1	20%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

Analysis and Interpretation:

According to the results obtained from the psychomotor development of 5 children investigated, it can be seen that of 4 children surveyed, corresponding to 80%, held their heads within the fourth to fifth month, and 1 child, representing 20%, indicated that they held their heads within six months. at twelve months, as evidenced in all the cases investigated, the children held their heads from the fourth month onwards, which indicates existence of problems in psychomotor development.

Question #5: He sat

Table 5

Alternatives	Frequencies	Percentage %
5-6 month	4	80%
6-10 month	1	20%
10 months and up	0	0%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

Analysis and Interpretation:

The study carried out indicates that the five cases investigated, corresponding to 100%, presented deficient language development. As can be seen, the acquisition of language possibly caused by the obstetric problems mentioned above.

Question #6: Language disorder

Table 6

Alternatives	Frequencies	Percentage %
Si	5	100%
No	0	0%
Total	5	100%

Source: Clinical History Prenatal Data

Researcher: María del Pilar Herrera

Analysis and Interpretation:

The 5 cases investigated corresponding to 100% presented language disorders. The problems presented during and after pregnancy in the cases could have had an important impact on the language development of the children since they all presented disorders in it.

Results of the psychomotor evaluation sheet and articulation sheet

Evaluate the type of psychomotor and language disorder that children suffer from and girls who attend the Sendero de Alegría Rehabilitation Center through the application of the psychomotor evaluation of the Articulation Sheet.

Psychomotor Evaluation Form

Question #1

Case 1Psychomotor Area

Table 7

Psychomotricity	% Initial	Final%
Head	25%	0%
Shoulders	75%	25%
Arms	75%	0%
Hand	75%	0%
Trunk	50%	0%
Legs	75%	0%
Feet	100%	25%

Source: Case 1 Psychomotor Evaluation Sheet

Researcher: María del Pilar Herrera

Analysis and Interpretation:

As can be seen in the initial evaluation, gross motor skills are affected: head 25%, shoulders 75%, arms 75%, trunk 50%, legs 75% and feet 100%, while in the final evaluation it has decreased from 50% to 75%, fine motor skills in the initial evaluation are affected a75% and in the final evaluation it is found that their motor skills have totally improved.

Articulation test

Case 1Language

Table 8

CASE 1	% INITIAL	% FINAL
Phonology	75%	25%
Morphosyntax	75%	25%
Semantics	100%	50%
Pragmatics	90%	50%

Source: Articulation Test Case 1

Researcher: María del Pilar Herrera

Analysis and Interpretation:

After carrying out the respective analysis, it is observed that in the initial evaluation the language characteristics are affected from 75% to 100%, while in the final evaluation they have decreased by 50%. The investigated case 1 presented problems in phonology, morphosyntax, semantics and pragmatics since comprehension and articulation are deficient.

Final Diagnosis of Case 1

Víctor is a 3-year-old boy with mild mental deficiency, the mother had normal development during pregnancy, he was conceived by natural childbirth, presenting hypoxia, which left the aforementioned deficiency as a consequence, within the psychomotor development he held his head after four months and He sat down during the fifth month, which left as a sequel clumsiness of movements diagnosed as motor weakness associated with language disorders such as omission of ther phoneme in the middle position and substitution of the r phoneme for l, he also presented motor weakness

Psychomotor assessment

Question No. 1

Case 2: Psychomotor Area

Table 9

CASE 2	% INITIAL	% FINAL
Head	0%	0%
Shoulders	75%	0%
Arms	25%	0%
Hand	75%	25%
Trunk	50%	25%
Legs	100%	25%
Feet	25%	0%

Source: Case 2 Psychomotor Evaluation Sheet

Researcher: María del Pilar Herrera

Analysis and interpretation:

In the initial evaluation, gross motor skills are affected between a 50% and 100% which in the final evaluation improved remarkably by 50% in fine motor skills at the beginning we observed a deficiency of 75%, the same that after applying the program improves by 50%. Investigated case 2 denote that the child presented deficient psychomotor development in both gross and fine motor skills, which after receiving psychomotor therapy improved remarkably.

Articulation test

Case 2Language Area

Table 10

CASE 2	% INITIAL	% FINAL
Phonology	75%	25
Morphosyntax	75%	25%
Semantics	100%	50%
Pragmatics	90%	50%

Source: Articulation Test Case 2

Researcher: María del Pilar Herrera

Analysis and Interpretation:

In the initial evaluation, phonology is affected by 50%, in the final evaluation an improvement of 30% is observed, in the morphosyntax, semantics and pragmatics in the initial evaluation they are affected with 75%, the same as when carrying out the final evaluation have a total and 50% improvement Case 2 investigated presented problems in language development if comprehension, articulation and expression were deficient before performing language therapy.

Final Diagnosis of Case 2

Jhair is a 2-year-old boy, his mother presented a threat of abortion during the course of the pregnancy, the type of delivery was a cesarean section as a result of which the child suffered hypoxia, which left as a consequence Mild Mental Retardation, limiting psychomotor development since it sustained the head within the fourth to fifth month, it sat down during the fifth month which left as a sequel Synkineasis characteristic of the clumsiness of movements associated with the language disorder omission of the phoneme r in initial and middle position and substitution of the phoneme r by d.

Psychomotor evaluation

Case 3 Psychomotor area

Table 11

CASE 3	% INITIAL	% FINAL
Head	0%	0%
Shoulders	50%	0%
Arms	0%	0%
Hand	50%	0%
Trunk	50%	0%
Legs	50%	0%
Feet	25%	0%

Source: Case 3 Psychomotor Evaluation Form

Researcher: María del Pilar Herrera

Analysis and Interpretation:

In the initial evaluation, gross motor skills are affected by 50%, which after carrying out the rehabilitation improves in its entirety, in terms of fine motor skills in the initial evaluation, a deficiency of 50% to 25% was confirmed which in the final evaluation has an improvement in its entirety.

Articulation test

case 3 Language

Table 12

CASE 3	% INITIAL	% FINAL
Phonology	75%	25%
Morphosyntax	75%	30%
Semantics	100%	50%
Pragmatics	100%	50%

Source: Articulation Test Case 3

Researcher: María del Pilar Herrera

Analysis and Interpretation:

The phonology in the initial evaluation is affected with 75%, while in the final evaluation it has decreased to 25%, in the case of morphosyntax in the initial evaluation it is affected by 75% and in the final evaluation they present a 30%, the semantics in the initial evaluation are greatly affected with 100% and in the final evaluation there is an improvement of the 50%, in the initial evaluation pragmatics is greatly affected with 100%, and in the final evaluation it is found with 50%. Once the language therapy was carried out, it was possible to significantly improve the articulation and comprehension of the language of case 3 investigated.

Final Diagnosis of Case 3

Yandry is a 2-year-old boy, his mother presented a threatened abortion during the course of the pregnancy, the type of delivery was a cesarean section as a result of which the child suffered hypoxia, which left as a consequence Mild Mental Retardation, limiting psychomotor development since he held his head Within the fourth to fifth month, he sat down during the fifth month, which left as a sequel diagnosed clumsiness of movements, associated with deficient language development, for which reason he presented substitution of the phoneme r for l.

Psychomotor evaluation

Case 4 psychomotricity

Table 13

CASE 4	% INITIAL	% FINAL
Head	25%	0%
Shoulders	100%	50%
Arms	75%	25%
Hand	100%	25%
Trunk	75%	25%
Legs	100%	25%
Feet	50%	0%

Source: Case 4 Psychomotor Evaluation Sheet

Researcher: María del Pilar Herrera

Analysis and Interpretation:

In the initial evaluation, gross motor skills are affected from 25% to 100% and in the final evaluation an improvement of 50% is found, in what concerns fine motor skills. When initially evaluating fine motor skills, we found 100% deficiency which in the final evaluation we see a 75% improvement. Regarding case 4, it is evident that gross and fine motor skills were affected by not receiving adequate therapy, which was replaced according to the needs of the case and these improved remarkably.

Articulation test

Case 4 Language

Table 14

CASE 4	% INITIAL	% FINAL
Phonology	75%	50%
Morphosyntax	75%	50%
Semantics	100%	40%
Pragmatics	100%	50%

Source: Articulation Test Case 4

Researcher: María del Pilar Herrera

Analysis and Interpretation:

In the initial evaluation the phonology and morphosyntax is affected by 75% in the final evaluation an improvement of 25% is observed, the semantics and pragmatics in the initial evaluation are affected with 100% the same as after carrying out the program in the final evaluation have an improvement of 50% to 60%. The language characteristics in case 4 investigated were affected by the lack of adequate therapy, so after performing a series of exercises they improved on a large scale.

Final Diagnosis of Case 4

David is a 2-year-old boy with moderate mental deficiency, his mother contracted rubella in the first months of pregnancy, leaving the aforementioned deficiency as a consequence, conceived by caesarean section, poor psychomotor development, held his head between the seventh month and died. He sat down during the tenth month, being diagnosed with Paratonia associated with language difficulties as substitution of the r phoneme for l, he also presented Motor Weakness.

Psychomotor evaluation

Case 5 Psychomotricity

Table 15

CASE 5	% INITIAL	% FINAL
Head	25	0
Shoulders	100	25
Arms	0	0
Hand	75	0
Trunk	50	0
Legs	50	0
Feet	25	0

Source: Case 5 Psychomotor Evaluation Sheet

Researcher: María del Pilar Herrera

Analysis and Interpretation:

In the initial evaluation we see between 25% and 75% affectation in gross motor skills while in the final evaluation there is an improvement in 50%, in fine motor skills, the initial evaluation shows us that the child has affected 25% to 75% of his motor skills and after completing the program the final evaluation shows that there is totally improvement. The investigated case 5 presented at the beginning of the therapies limitations in gross motor skills and fine motor skills, the same ones that after carrying out the indicated treatment have improved remarkably.

Articulation test

Case 5 Language

Table 16

CASE 5	% INITIAL	% FINAL
Phonology	75%	25%
Morphosyntax	80%	25%
Semantics	75%	25%
Pragmatics	90%	40%

Source: Articulation Test Case 5

Researcher: María del Pilar Herrera

Analysis and Interpretation:

As can be seen in the initial evaluation, phonology and semantics are affected by 75%, morphosyntax 80% and pragmatics 90%, the same ones that in the final evaluation have an improvement of 50%. The language characteristics in the investigated case 5 were corrected through a language therapy focused on comprehension, articulation and expression of language.

Final Diagnosis of Case 5

Richard is a 2-year-old boy, the mother presented preclassical, for which she underwent a cesarean section at the time of delivery, within the obstetric conditions she was found with hypoxia resulting in Mild Mental Deficiency, her psychomotor development was deficient, she held her head between the seventh month and sat up during the tenth month, for which he was diagnosed with clumsiness of movements associated with poor language development presents substitution of the r phoneme for the omission of the n phoneme and distortion of d by s associated with clumsiness of movements.

FINAL CONSIDERATIONS

The application of technical instruments such as the psychomotor evaluation and the articulation test, allowed obtaining reliable results through adaptable procedures. To the possibilities and conditions of the children. Regarding motor skills, 90% improvement was obtained in the population studied.

The articulation, comprehension and expression of the language gave advances of 85% of improvement in the study

population. The results could have been even more satisfactory if 40% of the parents had actively participated in the rehabilitation of their children, that is, encouraging and reinforcing the activities at home performed during therapy.

Socializing the work through a talk allowed students to learn about the development projects that It has been promoting the National University of Loja in agreement with other institutions in favor of individuals with disabilities.

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B. data research and statistical analysis:	20%	20%	20%	20%
C. elaboration of figures and tables:	20%	20%	20%	20%
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