

THE IMPLEMENTATION OF SPEECH THERAPY SERVICES AND SPEECH DISORDERS ASSESSMENT IN REGIONAL PSYCHO-PEDAGOGICAL SUPPORT CENTERS

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ABSTRACT

The formation of a quality education system for children with special educational needs in the Republic of Armenia, the difficulty of applying the study and assessment model for speech therapy assessment is explained by the insufficient numbers of studies and lack of the current problem examination. Currently, regional pedagogical and psychological support centers in the Republic of Armenia provide the assessment of the educational needs of children with special needs and make a corresponding conclusion regarding the organization of the child's education and the special conditions required for the education.

The application of the new model of speech therapy assessment presented to implement the provided support/speech therapy services at a proper level will provide an opportunity to implement the functions defined by the legislation and statutes, which are related to the provision of speech therapy services in general education.

Keywords: children with special educational needs, speech disorders, assessment, speech therapy assessment, education, educational needs, pedagogical and psychological support.

INTRODUCTION

The analysis of scientific-methodical literature, familiarization with the work experience of specialists of psycho-pedagogical support centers and public-school teachers, as well as the studies of the legislation and policies of the Republic of Armenia regarding the study of criteria and tools for the assessment of individual's functionality showed that the issues of speech therapy assessment of children with speech disorders are almost undeveloped.

In the formation of a quality education system for children with special educational needs in the Republic of Armenia, the difficulty of applying the study and assessment model for speech therapy assessment is less examined. From these perspectives, to have a clear understanding of the situation it is

critically important to study and analyze the perspectives of the researched problem in the professional literature worldwide, to analyze the existing criteria and programs of speech therapy assessment from the point of view of the reflection of the researched problem, to study the work of regional psycho-pedagogical support centers from the point of view of speech therapy assessment.

At the same time it is highly recommended to analyze the practical significance of scientific-methodical and teaching-methodical materials and guidelines for psycho-pedagogical field specialists working with children with speech disorders, and study the areas subject to assessment, components, and sub-components covering the functional assessment criteria, functional assessment codes and functional assessment qualifiers, as well as the methodological guidelines for the assessment of the individual's functionality based on World Health Organization International Classification of Functioning, Disability and Health (WHO ICF) (WHO, ICF, 2011), which is currently approved as a disability needs assessment tool and qualifier by the Minister of Labor and Social Affairs of the Republic of Armenia (the Republic of Armenia Law of individual's functional Assessment, 2022).

LITERATURE ANALYSES

The examined literature on functional assessment, as well as the scientific methodical literature reflecting the peculiarities of conducting and organizing the speech therapy assessment of children with speech disorders, were studied and analyzed. In addition, a review of the literature related to the age psychology and physiology of junior schoolchildren, as well as children with speech disorders, was performed (Aslanyan & Hovyan, 2020; Kaminskiy, 2012; Kalyagin, 2004). Selected sources directly related to the research problem were studied and generalized, which allows us to determine the main trends in the development of theoretical and practical requirements necessary for the communication and speech development of children with speech disorders. Also, it enables the process of expanding the possibilities of pedagogical and psychological support services provision (Harutyunyan, Hovyan, Saratikyan, Azatyan, Muradyan, Tanajyan, 2019).

The pedagogical observations carried out within the frame of current research allowed us to evaluate the nature and content of the speech therapy assessment of primary schoolchildren with speech disorders, both in the regional psycho-pedagogical support centers, as well as in the educational process. All these helped to identify the problems that are currently being faced in the speech therapy assessment and work organization process of speech of primary schoolchildren, in the absence of appropriate development programs, in the issues of ensuring the awareness of speech therapists and native language teachers.

The field review and analysis showed that in the Republic of Armenian within the scope of transition and reforms, they are points that need to be clarified by the specialist as soon as possible. This

is vital from a theoretical and significant, as well as from a practical point of view. Thus, the following questions remain subject to research and need to be investigated from an interdisciplinary perspective:

- Basic peculiarities of speech therapy assessment of children with speech disorders in RA (Aslanyan, 2021);
- Effectiveness of educational activities in secondary schools due to correct speech therapy assessment and task setting aimed at overcoming speech problems (Aslanyan & Hovyan, 2020);
- The theoretical conditions and perspectives of the organization and conduct of speech therapy work towards the application of different models of assessment of speech disorders and the role and importance of functional assessment in this process;
- Organization of WHO ICF-based assessment of the speech disorder of schoolchildren, the features of detection, prevention, assessment, and accordingly, the provision of speech therapy services, as well as the thresholds for the assessment of the individual's functionality and determination of disability and further recognition process (the Republic of Armenia Law of individual's functional Assessment, 2022; Order N370 of the Minister of Education and Science, 13.04.2014).

During the pedagogical observations, it was also determined the need to provide speech therapy services modeled from the point of view of the assessment of speech disorders according to WHO ICF component areas and the use of an information database reflecting the relevant codes, which makes it possible to have more accurate and comparable statistical data to assess the current level of the educational abilities of a child with a speech disorder and the development of speech, to explore opportunities, monitor services provided to speech-impaired children, develop policies based on data analysis, perform assessment and needs assessment (Harutyunyan, Hovyan & Harutyunyan, 2018; Harutyunyan & Harutyunyan, 2014; Order N370 of the Minister of Education and Science, 13.04.2014).

Still, the modeling of speech therapy assessment will help to provide more targeted services, and accessible conditions through the introduction of the speech therapy model, taking into account the important fact that one should not rely only on the existing problems, because the medical diagnosis cannot always correctly determine the system of speech therapy services provided by the specialist working in regional psycho-pedagogical support centers.

Since the classification based on functional impairments is often not sufficient for determining the type, period, duration, and volume of speech therapy services from the point of view of assessment, during the implementation of the research, it should be emphasized not only the medical process of function assessment but also the narrow professional intervention carried out by regional psycho-pedagogical support centers specialists, which primarily involves a speech therapy assessment as well.

METHODOLOGY

Desk review has been selected as a basic research methodology in this study. It is known as a type of research that is based on the material published in reports and similar documents that are available in public libraries, websites, data obtained from surveys already carried out, etc. (Villegas, 2023). National policies, regulations, as well as different organizations' stored data can also be used for research purposes.

Within the frame of the current study the desk review has been conducted including the following sources:

- Republic of Armenia Law of individual's functional Assessment, 2022;
- Order N370 of the Minister of Education and Science 13.04.2014 On approving the procedure for providing pedagogic-psychological support services for the organization of education;
- RA Government Decision N 1177 of 28. 07. 2022 On approving personal functionality assessment measurements and tools
- Individuals' functioning assessment protocols, self-assessment questionnaires, and functioning assessment summaries developed by and used by the psycho-pedagogical support centers specialists;

Before the period of reforms in the Republic of Armenia, the effectiveness of the educational activities depends on the correct setting of the speech therapy activities aimed at overcoming the speech problems of children with pronunciation disorders in the educational settings. This took place because the speech therapy activities carried out in these institutions pursue one important goal: the formation of abilities and skills to correctly reproduce speech sounds (Hovyan, 2015; Hovyan, Vardanyan, Amirbekyan, Zohrabyan, 2007).

The importance of practical and scientific research in educational experiments has been emphasized by many well-known scientists and specialists (Thomas, Shulz, & Ryder, 2019; Smith, et. al., 2017). The organization of verification experiments and registration of results was carried out according to the generally accepted methodology, and the obtained results of the research were recorded in protocols specially developed by us.

Systematic observation has been conducted through visits to regional psycho-pedagogical support centers in Yerevan (capital of the Republic of Armenia), Vanadzor (third biggest city), and Goris (16th biggest city) to clarify the existing problems related to the classification based on functional disorders.

RESULTS

The modeling of the speech therapy assessment, that is, the questions related to the speech

problems of the child, the priority of determining the type and degree of speech disorder should be given to the assessment carried out by the speech therapist, also by the specialists of psycho-pedagogical support centers. Examination of speech disorders is the most important prerequisite for the organization of speech therapy work, and the effectiveness of speech therapy work depends on the correct organization of this process.

Since the assessment of a child with special educational needs is a process of collecting and coordinating data about him/her in various stages of development, the speech therapy assessment was carried out in the normal environment of the child to ensure the appropriate planning of the child's educational programs with the decision and need for the provision of professional services.

Within the framework of the research, the features of speech therapy assessment in the process of determining the type and degree of speech disorder are presented in a model that can be universally used for children in healthcare, education, and public spheres which are indicated in RA Government Decision N 1177 of 28. 07. 2022.

However, based on the research aim, as well as in terms of presenting the issue, the studied relevant professional and legislative sources allow us to state that the characteristics of speech therapy assessment currently, according to WHO ICF, the determination of the type and degree of speech disorder, became the basis for the organization of speech therapy services provided in secondary schools.

The accessibility, simplicity, and objectivity of the assessment of the results allowed to increase in the efficiency of the assessment process of children with speech disorders, since the individual learning program of a person, which was previously drawn up as a result of a medical and social examination, where the types and volumes of necessary services arising from the needs of the individual were defined, was replaced by a new assessment model developed, which is based on pedagogical and psychological approaches. It was caused by the fact of changes taking place in national policies and regulations regarding the implementation of the new measures, and in fact, there was a misunderstanding about who is going to be responsible and how to organize the assessment process.

The modeled assessment system, through the implementation of a scientific experiment, allowed recording the data characterizing the speech abilities and skills of the schoolchildren with speech disorders during the conduct and execution of the presented speech tasks, appropriately selected speech material, game exercises, and tasks.

The WHO ICF standards related to the assessment of speech therapy-related disorders allowed us to assess the type and degree of speech disorder of the younger speech disorder according to the relevant characteristics and qualifiers, based on the methodical guidelines for speech therapy assessment. It should also be noted that among the mentioned problems, the most problematic is the full and objective assessment of children's educational needs. To solve this problem, conducted reformers from the

Ministry of Education, Science, Culture and Sports, as well as the Ministry of Labor and Social Affairs with the support of international organizations help to make the road map and have a clear picture for understanding the principles and approaches of assessing the special conditions of children's education and needs, based on the ideology of the WHO ICF.

As in the main version of the WHO ICF, the universal qualifier indicating the severity of the problem in all areas is composed of five levels of numerical magnitude 0-4 (0 corresponds to “no disturbance/violation”, “no difficulty” or “no hindering factor, and 4, to the degree of “profound disorder/disturbance”, “profound difficulty/disability” or “profound hindering factor”). So, when assigning the qualifier of the degree of severity in the proposed assessment system, it is necessary to take into account the functions of the organism, body structure, as well as life activity and participation problem, as it is stated in (RA Government Decision N 1177 of 28. 07. 2022).

The data analyzed included the codes of “**Purposeful Use of the Senses /d110-d129/**” including d110 Viewing, d115 Listening, d120 Purposeful Use of Other Senses, d129 Purposeful Use of the Senses, “**Basic Learning Ability /d130-d159/**” codes, including: d130 Imitation, d131 Learning by doing activities with objects, d132 Gathering information, d133 Learning a language, d134 Learning an additional language, d135 Learning through repetition, d140 Learning to read, d145 Learning to write, d150 Learning to count, d155 Acquiring skills, d159 Basic learning ability, “**Applying knowledge /d160- d199/**” codes, including d160 Focusing attention, d161 Directing attention, d163 Thinking, d166 Reading, d170 Writing, d172 Counting, d175 Solving problems, d177 Making decisions, d179 Applying knowledge, d198 Learning and applying knowledge, d199 Learning and applying knowledge. Also, the assessment of voice and speech functions, voice production features, phoneme production, speech tempo, and rhythm functions, stuttering, fast and slow speaking, speech fluency, rhythm, speed, and melodic functions according to WHO ICF criteria, which is currently not evaluated by a speech therapist, because these problems are classified under “b” codes, which has special medical evaluation need.

While reflecting on such a combination of analysis of speech therapy assessment coding allowed us to assess the problems caused by speech disorders in terms of type, degree, and severity and to highlight the features of speech therapy assessment according to the classification of speech disorder based on WHO ICF criteria and approach. The need for clarification on how the speech therapy assessment is conducted, based on what standards the evaluation is made, and how the type and degree of speech disorder are determined in the RA is obvious.

Pedagogical test experiments allowed an assessment of speech disorders according to clinical-pedagogical and psycho-pedagogical classification features.

To create a more objective profile of the examinees and analyze the results of the research, based on the investigated documents and procedure related to the children's speech assessment, the conclusions

of the psycho-pedagogical assessment of the special educational needs, those with speech disorders are divided into 4 groups according to the functional limitation thresholds accepted by the WHO ICF (Table 1).

Table 1.

Thresholds of functional limitation according to WHO ICF.

xxx.0	no problem, no limitation (not available, missing, noticeable)	0-4%
xxx.1	the problem of mild degree (insignificant, low, mild impairment, and (or) limitation)	5-24%
xxx.2	moderate problem (moderate, tolerable disturbance and (or) limitation)	25-49%
xxx.3	severe degree problem (severe, pronounced impairment and/or limitation);	50-95%
xxx.4	profound problem (very severe, profound impairment and/or limitation).	96-100%

In the process of speech therapy assessment, it has been identified that the problems that do not express the organization of a summarized speech therapy intervention for each child in accordance with the information received on the assessment of special educational needs, since the number of hours of speech therapy support allocated to the child according to the established procedure is 25 minutes per day, with 1 or 2 meetings per week, which is not enough for effective speech therapy work. That point is considered to be the most vulnerable, which influence directly the quality of the provided intervention based on the assessment and later on the quality of life of the child having a speech disorder.

As a result of the speech therapy assessment, the ways of increasing the effectiveness of the speech therapy intervention with schoolchildren with speech disorders in the learning process, the features of collaborative work with parents and teachers, the practical significance of scientific-methodical and teaching-methodical materials, guidelines for both speech therapy assessment and psycho-pedagogical support specialists working with children with special education needs.

Within the frame of this context, the lack of experimentally developed means, methods, and pedagogical conditions for the implementation of speech therapy assessment significantly complicates the solution to the above-mentioned important problem.

Therefore, the review of the documentation and visits to regional psycho-pedagogical support centers in Yerevan, Vanadzor, and Goris made it possible to identify the existing problems related to the classification based on functional disorders and to think about developing ways to optimize speech

therapy assessment and, accordingly, speech therapy further implementations and work.

During the visits, the peculiarities of the organization of speech therapy assessment work in the context of universal inclusion, the existing problems, obstacles, and the process of inclusion implemented in secondary schools were investigated from the point of view of the speech therapy assessment and intervention organization.

The following principles should be distinguished in the process of speech therapy assessment of a child with a speech disorder:

1. Principle of the child systematic assessment and examination.
2. Principle of the complex approach.
3. Principle of dynamic research.
4. Accounting for age and individual characteristics.
5. Principle of qualitative analysis of received data

WHO ICF as a basis for assessing an individual's needs, and level of disability, from the point of view of speech disorders, and in this case, pronunciation disorders, refers mainly to the assessment of abilities and skills, and the information database reflecting the component areas of WHO ICF and the relevant codes enable:

1. to have the most accurate and comparable statistical data to assess the current level of learning abilities of a child with a speech disorder and to study the possibilities of speech development;
2. monitor the services provided to the child with a speech disorder;
3. develop policies based on data analysis;
4. perform an assessment and highlight the need.

CONCLUSION

Systematic observations and assessments allowed us to state that, from the point of view of theoretical and practical applicability, the effectiveness of speech therapy work with children of primary school age largely depends on the process of applying the criteria for speech therapy assessment and psycho-pedagogical assessment of the need for special conditions.

According to the features of the application of the speech therapy model of the proposed assessment, the developed principles and approaches of the assessment, based on the criteria of WHO ICF, the pedagogical and psychological assessment criteria for the assessment for special education needs can be applied with a more precise formulation and clarification of certain characteristics and qualifiers of speech disorders, as we mentioned earlier.

REFERENCES

1. Aslanyan, A. (2021). Classification based on dysfunction as a basis for providing speech therapy services; Armenian journal of special education, Scientific methodological journal, 3 (1); p. 26-41.
2. Aslanyan A., Hovyan G. (2020). Modeling of Speech Therapy assessment in regional pedagogical and psychological support centers, Armenian journal of special education, Scientific methodological journal, 2(4), p. 6-19.
3. Harutyunyan, M., Hovyan, G., Saratikyan, L., Azatyan, T., Muradyan, S., & Tanajyan, K. (2019). Assessment of the implementation of universal inclusive education in connection to the functions of the regional pedagogical-psychological support centers in Armenia, "A research center on Inclusive and equitable community", Khachatur Abovyan Armenian State Pedagogical University.
4. Harutyunyan, Z., Hovyan, G. & Harutyunyan, M. (2018). Pedagogicheskaya reabilitatsionnaya podderjka kak predposilka organizacii effektivnogo inklyuzivnogo obrazovaniya, Sbornik statey Mejdunarodnoy nauchno-prakticheskoy konferencii, Penza, Izdatelstvo. MTsNS "Nauka i prosveshenie", RINTs, st. 300-302.
5. Harutyunyan, Z., V., & Harutyunyan, M. R. (2014). Sistema inklyuzivnogo obrazovaniya v Armenii I rol ergoterapii v etoy sisteme, Sovremennye problemi ssikhologo-pedagogicheskogo soprovojdeniya detstva, Chast I, Novosibirsk, s. 104-106
6. Hovyan, G. (2015). Logopedakan ashkhatanqi arandznahatkutyunnery nerarakan krtutyun irakanacnogh dprocnerum, "Nerarakan krtutyun. Zhamanakakic khndirnern u martahravernery", Mijazgajin gitagwrtsnakan gitazhoghovi hodvatsneri zhoghovatsui nyuter, Yerevan, ej. 60-72.
7. Hovyan, G., Vardanyan, A., Amirbekyan, G., Zohrabyan, Z., (2007). Gravor khosqi khangarumneri shtkman ughvac va8zhutyunneri dzernark, Astghik, Yerevan. 25ej.
8. Kalyagin, V. A. (2004). Enciklopediya metodov psikhologo-pedagogicheskoy diagnostiki lits s narusheniyami rechi, Posobie dlq studentov, logopedov, psokhologov. KARO.
9. Kaminskiy, L., S. (2012). Statisticheskaya obrabotka laboratornyh i klinicheskikh dannikh: primenenie statistiki w nauchnoy i prakticheskoy rabote vracha, 2-oe izdaniye, Leningrad: Medicina.
10. McAfee, J. G., & Shipley, K. (2015). Assessment in Speech-language Pathology: A Resource Manual, 5th Edition, 738 p.
11. Order N370 of the Minister of Education and Science 13.04.2014 On approving the procedure for providing pedagogic-psychological support services for the organization of education.
12. RA Government Decision N 1177 of 28. 07. 2022 On approving personal functionality

assessment measurements and tools.

13. The Republic of Armenia Law of individual's functional Assessment, 2022.
14. Smith, D., Sneddon, A., Ward, L., Duenser, A., Freyne, J., Silvera-Tawil, D., Morgan, A. (2017). Improving child speech disorder assessment by incorporating out-of-domain adult speech, INTERSPEECH 2017 August 20–24, 2017, Stockholm, Sweden, p. 2690-2694.
15. Thomas, Sh., Shulz, J., & Ryder, N. (2019). Assessment and diagnosis of Developmental Language Disorder: The experiences of speech and language therapists, *Autism & Developmental Language Impairments* Volume 4: p. 1–12.
16. Villegas, F. (2023). Desk Research: What it is, Tips & Examples, QuestionPro, <https://www.questionpro.com/blog/desk-research/>
17. WHO (2011). *International Classification of Functioning, Disability, and Health (ICF)*.

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