

# Early Intervention in Context of Special Education – Communication between Parents of Hearing Impaired Children and Professionals with an Emphasis on Auditory-verbal Therapy

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## **Abstract**

The goal of the following article is to open the topic of teamwork in care for clients with a hearing impairment. The consequences the hearing impairment has on an individual require complex and long-term professional influence, and, at the same time, more levels of these consequences induce the need for defining broadly the multidisciplinary, interdisciplinary and trans-disciplinary team of professionals participating in the education and the therapy of these individuals and their families. The topic of team approaches constitutes a very lively discussed issue providing an extensive space for scientific-research activity both in our country and elsewhere. In the next section, we focus on early intervention approach for children who are deaf or hard of hearing and their families.

**Key words:** team approach, family, child with hearing impairment, early intervention, professionals, auditory-verbal therapy.

## Abstrakt

Cílem tohoto článku je otevřít téma týmové spolupráce v péči o klienty se sluchovým postižením. Důsledky sluchového postižení vyžadují komplexní a dlouhodobé působení ze strany profesionálů. Zároveň toto téma vyvolává potřebu definovat multidisciplinárni, interdisciplinární a transdisciplinární tým odborníků účastnících se na vzdělávání a terapii těchto jednotlivců a jejich rodin. Téma týmových přístupů představuje velmi živou a diskutovanou oblast poskytující rozsáhlý prostor pro vědecko-výzkumnou činnost a to jak v České republice, tak v zahraničí. V další části textu jsme se zaměřili na auditivně-verbální terapii.

**Klíčová slova:** týmový přístup, rodina, dítě se sluchovým postižením, raná intervence, odborník, auditivně-verbální terapie.

## Introduction

The results showed that the most children who are deaf or hard of hearing are born to parents with typical hearing. Generally, we can say that the diagnosis is usually shock, confusion and frustration. Most parents want to do something immediately to alleviate their concerns about not being able to communicate effectively with their child and that their child will not learn to talk. With unprecedented advances in hearing technology and the assistance of professionals who are trained in family-centered education and therapy, most children who are deaf and hard of hearing can learn to communicate efficiently using natural spoken language developed primarily through listening.

In the sphere of care for individuals with a hearing impairment, the topic of team approaches is a currently highly discussed issue reflected by many scientific domains, in particular, because serious consequences of this impairment require complex and long-term professional influence since the professionals' intervention is usually not a matter of one isolated domain.

The more complicated the complex picture of an individual with a hearing impairment is, the more the interdisciplinary or trans-disciplinary approach is usually required. Not only for these reasons does this phenomenon evoke the need for highly individualized care. A hearing impairment ontogenetically interferes, depending on its characteristics, in the cognitive processes, influences the parameters of individual (expressive and impressive) and social communication, influences the educational processes in their course and result, and has an impact on many other qualities of life of an individual with such impairment.

With regard to the fact that the development of communication of an individual with a hearing impairment affects his/her socialization, education, etc., speech and language therapy is specifically represented in the process of intervention with re-

spect to this individual. Not only for these reasons must it remain an interdisciplinary, multi-professional and cooperatively and integration-oriented science (Günter, 1996 in Lechta, 2002). "However, at the same time, it is inevitable (in the interest of people with impaired communication ability) to maintain the balance of the influences of individual correlative sciences in a manner such that none of them prevails and dominates in this interdisciplinary (trans-disciplinary) constellation (Lechta, 2000 in Lechta, 2002). As reminded by Grohnfeldt (1989 in Lechta, 2002), multi-professional cooperation is not about the alternative (either, or) or about the struggle for superiority, but, essentially, about the symbiosis.

Lechta (2002) emphasises the holistic approach, in which the human, as a bio-psychosocial being, is the centre of attention, including his/her special needs and the specifics of his/her environment. For the needs of our topic, we must also consider the emotional setting of the family and their expectations and ability to take part in the intervention.

It is necessary to take into account that despite the best professional help possible, the parents' experiences cannot be influenced. As stated by Šedivá (2006, p. 34): "Psychologists, teachers, speech-and-language therapists and other professionals should realize that even if they provide the best support, the most complex information and the most erudite advice with a great amount of empathy, the parents have no one but themselves to deal with this problem. For this reason, they should keep on top of things even at the moments when the family do not respect well-meant advice and do not behave, in the professional opinion, to the child's benefit." Despite all this, the author draws attention to the necessary strengthening of the feeling of parent competencies in dealing with the child.

However, a complete team is usually available only in larger or specialized workplaces where mutual cooperation and trust amongst individual team members should be a matter of course. Much complicated is to build a work team in places where individual professionals are distant from one another within a district and do not often know one another personally. Therefore, it always depends on the professional and personal qualities of each of the involved professionals (Škodová, 2003).

The high need for defining and describing individual team approaches stems from the need for a multidimensional analysis, known as the principle of an actually complex examination. The thing is that only the multidimensional analysis guarantees the actual identification of the depth of a problem, and since it considers all possible dimensions of a problem, it is capable of reducing to the minimum the risk of an erroneous diagnosis that would threaten in case of the subjectivistic consideration of these deviations (Lechta, 2003). According to the author, the objection that such a method of examining is time- and professionally-consuming cannot hold water. Even if the objection of time-consumption cannot stand, a time-economical principle containing the requirement for determining the most accurate diagnosis and interventional procedures for

an optimum period of time must be respected in this case. As stated by Lechta (2003, p. 26): “It only seemingly contradicts the stated need for a multidimensional analysis since only by means of this analysis, it is possible to arrive at the most accurate diagnosis for a reasonable period of time and, in particular, to avoid errors associated with a hasty and shallow diagnosis that is seemingly fast because, as a final consequence, it may extend the time necessary to examine and, particularly, correct the impaired communication ability.”

In more complicated cases, such as the issue of hearing impairment, the overlapping of the diagnostic process with the therapeutic process, that is, the continuity of the diagnosis, is more and more promoted. At present, a diagnosis accompanying the whole process of stimulating a child is required (Lechta, 2003). From this point of view, the contact with another parent of an older child with a hearing impairment, who already has some results and experience in caring for such child, may be very functional for families of the diagnosed child. It is also important to warn the parents from the very beginning that every consulting, educational, social or medical institution is a facility the services of which can or do not have to be used and which does not take responsibility for their child (Šedivá, 2006).

## Characteristics of Team Approaches

The above multidimensionality of problems requires a team approach. Nackashi, Dedlowová, Dixon-Woodová, Kerekrétiová, Krahulcová and others state various models of team approaches developed in the last decades. The basic criterion of the evaluation is the mutual interaction of professionals, its method and frequency of implementation, and the communication amongst individual team members in the diagnosis and therapy. The big significance of mutual communication is emphasised, for example, by Valletutti, Christoplos, Moller, Starr, Kerekrétiová etc. – the authors state that communication is the basic prerequisite of the cooperation. The same important role is ascribed to the coordination.

Kerekrétiová (2008) states that in the past individual professionals worked independently of one another and only had information about the child from written reports; for this reason, they were not able to identify any common sphere of interest given by the child's and his/her family's needs. In particular, the lack of knowledge in terms of the role of other professionals formed an insurmountable obstacle in achieving effective care for clients and their families – these were often left to themselves due to the lack of mutual cooperation among professionals who were short, in particular, of the integrated decision-making, planning, help and support.

## **Mono-disciplinary versus Multidisciplinary Team Approach**

We talk about monodisciplinary care when a client is treated by one professional – specialist (Kerekrétiová, 2008). On the other hand, the multidisciplinary team approach lies in individual work of every professional working independently of others. Although every member of a multidisciplinary team has his/her own specific role in the sphere of intervention, the communication among individual professionals is limited. The negative effect ensuing from this approach is, for the individual with a hearing impairment and his/her family, a huge amount of evaluations and information from various experts with the absence of mutual communication, coordination and cooperation, in particular, in the final decision on the intervention plan. Despite its negatives, this approach is often understood as traditional (Krahulcová; Kerekrétiová, 2008).

## **Interdisciplinary Team Approach**

A modern approach not only in the sphere of care for an individual with a hearing impairment is the interdisciplinary team approach that is slightly similar to the multidisciplinary model since intervention is ensured for clients by individual professionals. However, unlike the multidisciplinary approach, the interdisciplinary approach is characterized by mutual communication, coordination and cooperation that ensure the complexity and longitudinal nature of care for individuals with hearing impairment.

“In this team approach, individual professionals evaluate and diagnose in their own workplaces independent of the other team members. They meet regularly to plan individual examinations, notify one another of the results and the recommendations for further intervention plan and altogether prepare a report containing their diagnostic conclusions and recommendations. This approach encompasses a higher degree of interaction among team members, leading to a uniform intervention plan and its implementation. This model ensures cooperation, interaction and communication amongst various specialists participating in complex care. They can but do not necessarily have to be together. However, it is essential that they plan the intervention procedure together. An intervention plan is only created when the team members meet and discuss their diagnostic findings, observations and recommendations and new knowledge. The final care plan is elaborated on the basis of all professionals’ recommendations” (Kerekrétiová, 2008, p. 176)

## Trans-disciplinary Team Approach

If individual team members are familiarized with other professionals' intervention procedures, we talk about the trans-disciplinary team approach. This approach is generally considered as the most modern and progressive. As stated by Kerektériová (2008), a trans-disciplinary team is formed by members with good knowledge of the issue of other domains and their cooperation with representatives of such domains. "Their intervention procedures are interrelated and complement one another in the overall care for patients. Although the competencies of individual professionals are defined even here, it is the variety of opinions that enables the complex attitude to a problem and the tasks ensuing from it. This is beneficial, to a large extent and as a final consequence, to the patients to whom such care is provided" (Kummerová, 2001 in Kerektériová, 2008, p. 176).

The author further states that the role of a coordinator is played by one or two team members who shall find out, by questioning the client and his/her parents, any special needs, serious problems and changes in the last period, with which he/she shall familiarize all team members before the meeting takes place. "Every expert is responsible for his/her examination of which he/she shall notify all team members (possibility of opening a discussion). Upon mutual agreement, the coordinator shall inform the whole team and the parents about the final results of the examination, the next therapeutic procedure, the time plan and the recommendations, both verbally and in writing in the form of the final report" (Kerektériová, 2008, p. 176). Ideal cooperation within the trans-disciplinary team approach results not only in team members extending their knowledge of the individual participating domains, but also helps unify and coordinate the overall complex care with regard to every child's specific needs and, as a final consequence, the most efficient complex care is provided (Kerektériová, 2008).

## "Arena-style Approach"

Kerektériová (2008) states that Area-style approach is an extended form of trans-disciplinary approach (for more see Wolery, Dyk, Bzoch). These authors (in Kerektériová, 2008) state that this approach does not consider team members as mere passive observers but rather as active participants in the common diagnosis. "The facilitator shall make contact with the child and starts examining him/her in the presence of the whole team. Individual team members may interact with the child on various levels and in various degrees and to various extents. This approach is advantageous as it reduces direct work with a child and prevents the repetition of tasks and questions. Close cooperation of individual specialists is considerably reflected in the quality of the provided intervention."

We consider the professionals' ability to complement and help one another, including good results in the given domain, as crucial component in the context of our topic. As stated by Kantorová (2007, p. 10): "The paradox is that neither the representation of all roles is capable of automatically guaranteeing good results and optimum cooperation inside the team. People have their needs, interests and motives that may contradict those of the other members of the team."

## **Auditory-Verbal therapy (AVT)**

Auditory-Verbal therapy is an early intervention approach for children who are deaf or hard of hearing and their families. AVT focuses on education, guidance, advocacy, family support and the rigorous application of techniques, strategies, conditions, and procedures that promote optimal acquisition of spoken language through listening. It's very important to add, that spoken language through listening becomes a major force in nurturing the development of the child's personal, social, and academic life.

A longitudinal study (Dornan, Hickson, Murdoch, Houston, Constantinescu, 2010) reported positive speech and language outcomes for 29 children with hearing loss in an auditory-verbal therapy program (AVT group) (aged 2 to 6 years at start; mean PTA 79.39 dB HL) compared with a matched control group with typical hearing (TH group) at 9, 21, and 38 months after the start of the study. The current study investigates outcomes over 50 months for 19 of the original pairs of children matched for language age, receptive vocabulary, gender, and socioeconomic status. An assessment battery was used to measure speech and language over 50 months, and reading, mathematics, and self-esteem over the final 12 months of the study. Results showed no significant differences between the groups for speech, language, and self-esteem. Reading and mathematics scores were comparable between the groups, although too few for statistical analysis. Auditory-verbal therapy has proved to be effective for this population of children with hearing loss.

## **Variables Affecting Progress and Outcomes**

Each family and child is unique, with a specific living and learning style. Progress depends on a number of variables, including age of diagnosis, cause of hearing impairment, degree of hearing impairment, effectiveness of amplification devices or a cochlear implant, effectiveness of audiological management, hearing potential of the child, health of the child, emotional state of the family, level of participation of the family, skills of the therapist, skills of the parents or caregiver, child's learning style and child's intelligence and the above mentioned team approach.

## **Auditory-Verbal Professionals**

In my opinion it's necessary to focus on auditory-verbal therapist, who is a qualified educator of the hearing-impaired, an audiologist or a speech-language pathologist who has chosen to pursue a career supporting the guiding principles of Auditory-Verbal therapy. On January 2006, ten principles of Auditory-Verbal therapy were adopted by the AG Bell Academy for Listening and Spoken Language. All ten principles are to be followed by professionals who provide auditory-verbal services. Auditory-Verbal therapist is part of the team of the Auditory-Verbal Therapy Program. Primary members of the team consist of child and family, auditory-verbal therapist, audiologist and E.N.T. doctor. Among other specialists, who are part of the team belong psychologist, clinical geneticist, physiotherapist, social worker, occupational therapist, family doctor, speech and language pathologist and school personnel staff.

## **The Listening Environment**

Auditory-verbal practice encourages the maximum use of hearing in order to learn language and stresses listening than watching. Therapy, therefore, needs to be carried out in the best possible acoustic conditions. The listening environment is enhanced by parents and/or therapist sitting beside the child, on the side of the "better" ear. Important is speaking close to the child's hearing aids or cochlear implant microphone, minimizing background noise, using speech that is rich in melody, expression, and rhythm and using acoustic highlighting techniques to enhance the audibility of spoken language.

Most auditory-verbal programs offer weekly therapy sessions, usually lasting one hour, although some private programs and independent therapists provide therapy intervention more often. More therapy may or may not be advantageous and would depend on many variables. Through motivation and guidance, the parents acquire the confidence to implement techniques, strategies to reach specific goals in audition, speech, language, and cognition and communication development.

## **Auditory-Verbal Technique – HAND CUE**

The Hand Cue is one from described techniques used to varying degrees in most auditory-verbal therapy programs to emphasize the use of audition in the acquisition of spoken language. The Hand Cue signals the child to listen intently. It must be used only when necessary, in that some of its uses distort, smear, or eliminate the sound arriving at the microphone. As children come to rely on their hearing, the use of the Hand Cue



diminished. Once the child has integrated hearing into his or her personality, the Hand Cue is rarely used.

## Conclusion

The text provided information on the highly discussed issue of team approaches in care for individuals with a hearing impairment, in particular, because serious consequences of hearing impairment require long-term and complex influence on the part of professionals. Intervention in relation to these individuals is usually not a matter of one isolated domain. For this reason, characteristics of the individual team approaches were offered. In the next section, we focus on early intervention approach for children who are deaf or hard of hearing and their families.

*The article is dedicated to the project IGA\_PdF\_2014007.*

## References

- Dornan, D., Hickson, L., Murdoch, B., Houston, T., & Constantinescu, G. (2010). Is Auditoryverbal Therapy Effective for Children with Hearing Loss? *The Volta Review*, 110, 361–387.
- Kantorová, K. (2007). *Týmová práce*. Ostrava: Ostravská Univerzita v Ostravě, 2007.
- Kerekrtiová, A. (2008). *Velofaryngální dysfunkce a palatolalie*. Havlíčkův Brod: Grada.
- Krahulcová, B. (2004). *Interdisciplinární přístupy, kooperace a poradenství. Qualification of Educational Staff Working with Hearing-impaired Children (QESWHIC)* [online]. 2004. [cit. 2011-03-07]. Retrieved from: [qeswhic.eu/downloads/letter10cz.pdf](http://qeswhic.eu/downloads/letter10cz.pdf).
- Lechta, V. (2002). *Symptomatické poruchy řeči u dětí*. Praha: Portál.
- Lechta, V. (2003). *Diagnostika narušené komunikační schopnosti*. Praha: Portál.
- Šedivá, Z. (2006). *Psychologie sluchově postižených ve školní praxi*. Praha: Septima, 2006.
- Škodová, E; Jedlička, I. (2003). *Klinická logopedie*. Praha: Portál.

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