TRENDS IN EDUCATION AND PHYSICAL THERAPY OF HEARING - IMPAIRED CHILDREN

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Abstract
School integration involves improvement of the environment for children with special educational needs, implementing a system of measures to provide the necessary educational services to meet their needs in such a way as to achieve the most effective education and development.

Integrated education affects not only children with special educational needs, but also their peers in the regular classroom.

In inclusive education the focus is laid on the individual needs of each child and on the optimal development of their individual potential abilities.

Parents need to be motivated to exercise initiative themselves so as to obtain more knowledge of parenting strategies for education.

Another prerequisite for the successful integration and development of the potential abilities and needs of children with hearing disabilities is effective training of the professionals working with them.

Successful integration means a fundamental change in the quality of life of children with special educational needs in terms of their acceptance and equal participation in society as full members.

Keywords: children, hearing disorders, models of integration, parenting strategy

1. INTEGRATED TRAINING
Modern trends in education of children with special educational needs are articulated by the desire to achieve a higher quality of education. It is this education that can provide the best possible social integration of the child reaching this level of development, which warrants integration into life "together with others".

The issues of education, training and personal development of children with special educational needs are considered in close relation to their social rehabilitation and preparation for life in the societies of their peers. The guideline is that it is necessary to apply to the children such an approach, allowing them to fully adapt to the environment they are part of. It is particularly important for them not only to be helped physically and mental, but to create the best optimal conditions, enabling them, along with others, to realize their right to lead a normal life, regardless of their adverse condition. The emphasis is on the need for proper interaction on a regular basis between normal children and children with special educational needs. Thus, having integration as its fundamental approach, the achievement of the main goal could be ensured - the formation of social adaptive behavior.

The term 'integration' is interpreted in many different ways. In some countries it is only understood as striving for a better future for people with disabilities, in others, it means inclusion of children with
special educational needs in ordinary schools as the education offered to them must be individualized to adapt to their learning pace and based on the cooperation of all who participate in the process.

Integration means uniting people towards a common goal, assuming a detailed action aimed at joining the community and holding together the components of a whole, without conceding any loss of individual traits in this community /group/, on the contrary, it is understood as mutual understanding, recognition, penetration. It would be wrong if the process of integration is seen in an insular fashion i.e., how society treats people with disabilities and their families. This process is two-sided as the role of the individual who is to be integrated and the importance of family could not be underestimated. Not only can and should society be useful for people with disabilities, but the reverse must also be true - they can in turn benefit society, as they have enough to offer, given the chance to do so. In this sense, it is very important to provide them with the necessary training and create conditions for their inclusion in the world of labor, consistent with their capabilities and interests Pavlov (2003).

It is necessary to overcome the misconception that disabled people should keep a low profile in society. On the contrary, not only would their problems be aggravated in this way, but their social inclusion would be inhibited and they would be deprived of the opportunity to show what they are capable of, so as to be useful to themselves and the society alike.

The integration process must be bilateral. On the one hand, it must include efforts aiming at the socialization of children with disabilities, while on the other hand –it must make provision for a change in people's attitude towards them.

This approach should take into account the fact that integrated education affects not only children with special educational needs, but also their peers in the regular classroom. In order for integrated education to be implemented, the entire educational system must be reformed and not merely those of its aspects relevant to children having educational needs.

Inclusive education focuses on meeting the individual needs of each child and ensuring optimal development of their potential individual abilities, thus facilitating their full involvement in all social and educational activities.

Inclusive education should be seen as a broad and inclusive term. Its ultimate goal is to lead to an inclusive society, a society which requires a new model of behavior of people with disabilities, society sufficiently tolerant to all its members.

Kindergartens and schools should open their doors to children with special educational needs, with an aim to develop a child-centered pedagogy capable of developing all children, a pedagogy all people need and according to which, human difficulties and peculiarities are normal, human differences are respected, as well as the dignity of all children Terziyska (2005).

2. PSYCHOLOGICAL AND EDUCATIONAL CHARACTERISTICS OF CHILDREN WITH HEARING DISORDERS

In auditory impairment, two common diagnoses are usually placed - deafness and hearing impairment. Where a breach of the auditory function affects only one ear, the child is not regarded as auditory impaired, ie it should not be trained in special education. In such cases, the channel for perception of auditory information is preserved, although the direction of sound perception is distorted.

Talking about normal hearing usually means that the person has the ability to perceive, understand and reproduce expressive speech. According to audiometric data, the provisional boundary between normal and impaired hearing is considered as hearing impairment up to 10 Ab, as this limit is considered only with respect to children of early age, who are going to master the auditory speech through hearing imitation of speech patterns of others.

Also, a hearing loss of over 80Ab is considered as a completely conventional boundary between deafness and hearing impairment. As deaf are considered children with severe hearing impairments responding only to very loud sound stimuli.
In audiometric testing, taking into account the condition of the auditory residues and the level of oral speech, there can be differentiated four major groups of deaf children:

Deaf/becoming deaf early /no speech experience;

Deaf/becoming deaf late / with some speech experience;

Hearing- impaired people with relatively good level of spoken language ;

Hearing- impaired people with immature spoken language ;

What is important in this classification is that the hearing analyzer can not be used alone in the formation and development of speech in the first two groups of children. In the children of the third and fourth group, the auditory sensory residues form stable base in the process of correction, improvement and consolidation of speech capabilities Dionisieva (1996).

What language defects are found in the speech of people with hearing impairment? Depending on the time and degree of hearing damage, they can be summarized as follows:

1. Defects in the pronunciation of sounds and words .

2. Limited and poor vocabulary.

3. Insufficient acquisition of the sound composition of words, resulting in inaccurate pronunciation and misspelled words.

4. Misunderstanding and misuse of words.

5. Shortcomings in the grammar of the language;
   a/ improper construction of the sentence;
   b /improper agreement of words in a sentence;


7. Limited understanding of the text read.

As a result of the abovementioned language digressions, children with hearing impairment have the following learning problems :

1. Difficulties in acquiring reading skills and writing /literacy/.

2. Special errors in dictations and self- written speech .

3. Difficulties in understanding teachers’ explanations.

4. Difficulties in understanding textbooks due to the limited understanding of speech Lessinska (2009).
3. INTEGRATION OF CHILDREN WITH HEARING DISORDERS

Today, public institutions, social and community organizations, educational centres for deaf children, their families and friends join forces to revolutionize their treatment. This change is so vital that it can be defined as a new educational policy for this category of children.

Radulov views integrated education as "joint education of children with special educational needs and healthy children in ordinary schools through qualified support by a special teacher." Radulov (2009).

Numerous factors influence the development of integration. The individual characteristics of the child constitute the first and foremost group of factors which encompasses the physical, psychological, intellectual and communicative capabilities of the child, the degree and type of hearing disorder, the age of commencement, the adaptive abilities of the child, etc. Establishing these factors serves only as the first step. The second one involves assessment by a team of professionals of the capacity of the child to overcome the primary and secondary effects of deafness, among which stands the lack of speech and underdeveloped language skills. The imitative and learning abilities of the child should not be considered in isolation, but in relation to the conditions in which they can develop Terziyska (2005).

Of particular importance are the intellectual capabilities of the child. Lower intellectual capabilities will hardly allow integrated training at current conditions.

When choosing a mainstream school the emotional state and behavioral characteristics of the child should be assessed as well.

From the outset, the medical history of each child should be analyzed to establish preliminary, if orientational, estimate for successful integrated training and with a view to subsequent preparation of individual work plan of the child’s interaction with a teacher in a mainstream school, as well as a detailed specialist program for hearing and speech therapy /specialist in surdopedagogy/.

This preliminary estimate should be familiar to mainstream school teachers who will teach the child, heads of school and parents. The latter have the right to make the final choice, but the opinion of the experts shall be stated and well-grounded before them. Parents in their turn should present their arguments for or against the choice of a mainstream school Terziyska (2006).

The qualification of parents should not be perceived as a one-sided process in which a specialist feeds them with information, but as a bilatera onel. The family must provide feedback on their attitude to the read or heard information and on the possibility to apply that knowledge in their immediate work with the child at home. This will enhance the bond between them and will eventually become an important factor in overcoming difficulties.

The child's relatives - brothers, sisters, grandparents, neighbors should also get some knowledge and skills to establish contacts and concretely support the child. These contacts are especially important for the child’s language development and for their speech communication Katsarska et al. (2000).

The professional competence of specialists /therapists, teachers - or speech therapists/ is a factor of particular importance.

The choice is often determined by the proximity of the doctor’s surgery, by the personal preferences of the parents which in their turn are based on information coming to them from word of mouth. Parents usually seek the services of a specialist who has good knowledge and skills for the formation and development of spoken language in deaf or children with impaired hearing. However, this is not enough. Professional competence should be associated with:

- The ability of physical therapists to establish direct contacts with the child, family and thier teachers from mainstream schools;
- The ability of the former to act as coordinators between the family, school and child;
- The ability to motivate well both the child and the parents for what is to follow;
- The ability of physical therapists to alter when necessary the therapeutical program for work with the child as a result of suddenly changed conditions /absence from school due to being sick, failure to prepare at home, etc./;

- The possession of personal qualities on the part of the physical therapist that enable the application of specific vocational skills.

The physical therapist’s ability to assess the child where he or she does not feel put at a disadvantage or unduly stimulated. The assessment by the specialist – speech therapist and teachers from mainstream schools should reflect the dynamics of the development of the knowledge, skills and habits of the particular student Nenov (2006).

4. THE FAMILY AS A FACTOR FOR INTEGRATION. PARENTAL SUPPORT AND EDUCATION STRATEGIES

The birth of a child with severe congenital hearing loss is a problem that affects the whole family. It is accompanied by significant emotional experiences not only for parents but also for the closest relatives and friends. Deafness disrupts the natural rhythm of life and may for various periods of time become a pretext for violating family relationships. Actually, the main reason is not really deafness, but the lack of clarity about its nature, about the prospects of the child’s development and the likelihood of subsequent hereditary transmission.

In terms of their thoughts and feelings, parents can go through different stages – initial shock, understanding, protective denial, acceptance of deafness and active involvement in the child’s education, its hearing and speech therapy, its training and socialization.

The passage of the family as a whole and of each member individually through these stages takes place over a different period. It depends on many factors, but primarily on the family cohesiveness, the support it will receive from the extended family/grandparents, other relatives/ from friends, from the experience in communication with other deaf people and the knowledge about deafness prior to the birth of their child.

Parents relate differently to their hearing impaired child. As a rule, highly moral people accept and nurture the child, providing it with all the necessary care, treat it with understanding and attention and stimulate its development.

Although rare, there are cases where the attitude is exactly the opposite - some parents fail to accept the problem and even show indifference Katsarska at al. (2000).

There are also parents who accept a child with deafness, show love for it, but are overly doting towards it. Parents like these accept the child's deafness not as a difference, but as a disease. Such a child subsequently grows incapable of fending for itself and dealing with different challenges.

Fortunately, in most cases the child is properly treated. To others, who find it more difficult to control their feelings and experiences and to form proper attitude of the child, the activities of psychologists, hearing-speech therapists, teachers of mainstream groups and classes are directed.

It is very important to choose a good style for the child’s education. The style is a relatively stable manner in the choice of methods of education.

In psychology and pedagogy, great attention is paid to the styles as the effects of their implementation are different.

The authoritarian style does not imply good results. Authoritarian parents, who mainly resort to prohibitions, do not take account of children’s needs and desires, they do not comply with them, do not compromise and do not explain their decisions. At first glance, the authoritarian style might give the impression that its application leads to rapid effect, but in fact, this effect is transient. Children of authoritarian parents, including deaf ones, have lower self-esteem, lower grades in school, do not always speak the truth for fear of being punished.

The intimate style makes children dependent, the results are also conceivably undesirable.
The adoption of a liberal style means that the parent is full of confidence in the child, likes it, rarely punishes it, but does not exercise sufficient control over the execution of tasks Katsarska at al. (2000).

A particularly harmful effect on the child has the “passive indifference” style. It presupposes parents satisfying only the child’s basic needs, without devoting sufficient time and attention. Ignoring the child as a whole, its higher-order needs, the isolation it falls in, leads to its instability in the behavioral emotional sphere, to frequent mood swings, to depression and in certain cases to severely expressed aggression.

The authoritative style is seen as the best one in a child’s upbringing. In essence, it is a democratic style. Feelings of love and trust hold between parents and their children. Control is done tactfully, without underestimating its importance. Parents use encouragement, praise, support desired behavior. They are well aware that the effective control mechanism is based on good communication.

Parents need to be motivated themselves to exercise initiative to obtain better knowledge about deafness and parental educational strategies. Collaboration in this respect is to be built on the basis of mutual respect, cooperation and partnership. Society and the child itself need a change in parenting strategies and their replacement with adequate ones, but this must be done with proven and highly effective methods.

To develop common strategies for cooperation, there can be organized discussions, situations, trainings, meetings with the participation of the children themselves. Under this or any other reasonable means, many parents will be able to change their attitude to their child, to support and educate it with respect to its needs Popzlateva (1999).

5. MODELS OF INTEGRATION

Individual partially integrated learning is done through the model providing for a separate child to attend some subjects in the mainstream school or participate in the implementation of some common educational programs alongside hearing children. The most common subjects suitable for involving children in the described model to their hearing peers are physical education, art and mathematics.

Individual partially integrated learning is sometimes used as a transition to full integration of the child in mainstream schools, sometimes for a longer period when the next step towards a full integration is difficult to achieve due to various reasons.

There is also back integration training. Groups of children from the special class and the class in mainstream school are swapped. This model plays an important role in the lives of both groups of children, motivating them to school work, encouraging them to show responsibility, instilling feelings of respect and consideration of the individuality of children who are “different”, stimulating them to show help, expanding their knowledge Baltadzhieva at al. (2000), Nenov (2006).

The most complete integration is accomplished by the model of full integration. From an early age children enter the mainstream school, supported by resource teachers. The latter work with the child either in the former spare time or assist the child directly in the learning process.

There are different models which are used in different countries, but the most common ones are: full integration in ordinary class, selective integration, special classes in mainstream schools, integration in various extracurricular activities.

It is essential that teachers create conditions for overcoming the prejudice and stereotypical notions of "a different child". For this purpose, it is better to use in their work with students, with and without disabilities, socio-psychological and pedagogical training, which could successfully raise their interpersonal skills, understanding of others, develop reflective attitudes adequately representing the others and oneself Baltadzhieva at al. (2000).

There are also models of integrated education in the practice of individual countries, each of which has its positive aspects and some disadvantages, but which one shall we choose, which one is the best? This question has no simple answer. There are no universal models applicable to each case and all conditions. There are no ready to use answers with instructions which model is the best, and when and
how to use it. There is something that should be known by all who undertake to perform the heavy and very responsible task to create conditions and implement integrated education for children with special educational needs, namely:

- There cannot be applied a particular model of integrated education which could be claimed the best one;
- There is nothing like “best model” for integrated education, but there is one that is most appropriate for the individual child.

The people specifically involved with the child and its integration into mainstream education are bound to find this model and implement it successfully.

Training and rehabilitation of children with hearing impairment are related to solving a number of tasks, suggesting discussions on various issues. Currently, together with them, there arise new questions posed by the current situation in terms of which the integration of children with impaired hearing and cochlear implantation acquires greater relevance.

From the standpoint of pedagogy, there can be distinguished two main concepts: formal and social integration.

1. Formal integration represents the inclusion of children with hearing impairment in the environment of hearing children while functionally linking them to it to realize a particular purpose. The mere formal school integration occurs when the child with hearing impairment becomes a member of the class of hearing children and participates in the learning process, but it is ignored as a partner in gaming and communication as a whole because of speech problems.

2. Social integration is achieved when, without any formal framework or through any formal affiliation of deaf children and hearing children, a complete communication is carried out, i.e., this means acceptance of children with hearing disorders by their hearing peers. However, it should be noted that in our country formal integration prevails where the hearing-impaired children are part of the learning process of the school, but not a full part of the environment of their hearing peers. In other words, the former remain outside the social processes that accompany academic activities and are a key factor for the overall emotional and personal development of children Lessinska (2009).

In this sense, integrated education can cause massive injuries instead of being helpful. This is an indication that integrating children with hearing impairments in a hearing environment should offer a variety of alternatives to integrated education, not simply the traditional forms of inclusion in general education classes or special classes in mainstream schools.

To build an effective educational system to ensure maximum inclusion of hearing-impaired children into the world of the hearing ones means knowing the forms of integrated education directed towards the specific group of children.

There are two types of integrated education: external and internal. The first involves the education of hearing-impaired children together with hearing children, and the second - joint education of deaf and hearing-impaired children. In order to satisfy the maximum individual needs of each child different models of integrated education are applied.

1. Combined model - in this model, 1-2 children with hearing impairments who have psycho-physical and speech development levels close to normal children are integrated in the class of hearing peers in the presence of a resource teacher.

2. Partial model - in this model, hearing-impaired students who are not yet able to cope with the requirements of comprehensive school on a par with their hearing peers engage in mass groups and classes for only part of the day (for example, for the second half).

3. Temporary model - in this model, all hearing-impaired children from special schools, regardless of their level of development, meet with hearing children no less than 1-2 times per month in the form of organizing various events.
For establishing closer informal contacts it is a good idea that joint activities be organized in such a way that in their preparation and realization classes of either group (special class and class from comprehensive school) could interact within which children are in mixed pairs (students from special classes are partnered with students from mainstream classes). It is desirable that this partnership should become permanent. Thus, children have the opportunity to know each other better so that their contacts go beyond the school environment.

Within this model, hearing-impaired children accumulate social experience in the world outside of the special school and boarding house, acquire new values, master new communication skills to socialize.

A very important role in these events is played by educators, they steer and regulate the process of formation of contacts between the two groups of children. Their task is not easy and is linked to the prevention of possible conflicts, resolving conflicts, conducting explanatory work between the two groups Baltadzhieva at al. (2000), Terziyska (2005), Popov (2003).

An interesting form of integrated education is applied in German-speaking countries – preventative one, in which hearing children and hearing-impaired children at the same level of development are taught in a special school. In the process of special education some children stand out demonstrating higher scores so they can be targeted to partial integration in order to ascertain if integrated training is appropriate for them.

In other words, integration could and should be done through special school classrooms as well. Special schools as an institution do not preclude the inclusion of hearing-impaired children in the environment of hearing children. Integrated education can not meet and satisfy the needs of each child with impaired hearing.

In deciding on the integration of the hearing-impaired child into mainstream school there should be taken into account a number of conditions, which can be external and internal. The former are connected with the educational system in terms of which a hearing-impaired child's education is to be performed, while the latter involves the level of psycho-physical and speech development of the child. The external conditions also include:

1. Early detection of hearing impairment (in the first year of life) and beginning of therapeutic work immediately after diagnosis.

The desire of parents to have their children study together with hearing children, as well as their abilities and willingness to assist the learning process. Currently, many parents of integrated hearing-impaired children take a passive stance on the activities of the child at home. It is true that in the past there were cases of successful integration of hearing-impaired children thanks to the dedication and hard work of the parents at home.

2. Adequate social conditions – the presence of opportunities for children with hearing impairments to communicate with the hearing ones in the former’s daily round. This mainly refers to children with deaf parents whose prevailing environment consists mostly of hearing-impaired people, so in these cases temporary integration would be more efficient.

The presence of appropriate conditions to render effective and skilled extra help to the child - a resource teacher and speech therapist. The fact is that in our country at present, there is still a large number of schools, educating deaf children without providing specialized help for lack of resource teachers and speech therapists. This attests to the system’s inability to implement quality integrated education.

Performing systemic control on children’s development and effectiveness of integrated education for them.

3. Creating flexible conditions in which the child, if necessary, can pass from a mainstream school into a special one and vice versa. Only in this way can the individual idiosyncrasies of the particular child be taken into account so as to pursue the optimal course for its full development. In other words, the educational system should provide a variety of options that can meet a variety of needs. It would be a
huge mistake if the educational system offers a single option to all hearing-impaired children—for example, only special training or only integrated training.  

4. Providing hearing-impaired children with high quality sound amplification equipment and technical resources to assist their work in class Baltadzhieva at al. (2000), Lessinska (2009).

The internal indicators include:

1. Higher level of psycho-physical and speech level corresponding to the norm and close to it. This condition is essential as it allows hearing-impaired children to feel equal partners with their hearing classmates both in school activities and in the process of communication.  

2. Real opportunities to manage the material within the terms prescribed in the curriculum. It could be said that this condition is closely related to the previous one and is a prerequisite for building confidence in the hearing-impaired children in their own capabilities, and creating a sense of equality with the other children in the class. All this plays a huge role in the psychological comfort and stability of the child, its emotional characteristics and its mental stability.

3. Personal and behavioral qualities such as spontaneity, ease of establishing contacts, ability to concentrate, tolerance of others.

These conditions should be assessed by a team of specialists that includes: a resource teacher, hearing-speech therapist, an elementary school teacher, a representative of the management of the school and the child’s parents. The process of making a decision to integrate or target a child to a special school should not be considered as a procedure of selection, but rather as making a choice of the most appropriate educational environment for the particular child. With respect to this, it is desirable that the functions of the resource teacher and the hearing-speech therapist be distinguished, as in practice they are often equated.

Resource teachers assist in learning the material. Moreover, they continuously interact with the other teachers in the school, helping them to adapt the environment and teaching methods to meet the needs of the child. Another task of the resource teacher is to establish a contact with the management of the school and with the classmates of the hearing-impaired child for the purpose of understanding and acceptance Terziyska (2006), Radulov (2009).

The physiotherapist should form the features of the correct speech and also assist the understanding and mastery of verbal material taught in class Nenov (2006).

Finally, it should be noted that we are facing very serious and important issues that require special attention and quick response from the professionals working in the field of hearing and speech rehabilitation. Of paramount importance in solving these problems is reporting the needs of hearing-impaired children, who constitute a very diverse group. This requires the application of an individual approach to each case and the provision of adequate alternatives.

Although children with special educational needs entered mainstream schools, there are still people who choose to ignore the problems of hearing-impaired children and do not want their healthy child to communicate with the "special child." To deal with the contemporary challenges that face us, the people working with these children, we need the support of all the society, so that all people could realize that children with disabilities have needs other than those of theirs’ but that former are also children having parents and are entitled to being given a chance in life.

Another prerequisite for successful integration, development of potential abilities and satisfying the special needs of hearing-impaired children is the appropriate training of the professionals working with them so that the latter are able to meet and develop those needs.

Access to special equipment and the availability of supportive educational environment also play important roles in the integration and development of hearing-impaired children.

Successful integration means a fundamental change in the quality of life of children with special educational needs, in terms of their inclusion and equal participation in society as full members. This means acceptance of disabled people by the others, and full entitlement of these people to the benefits...
and rights enjoyed by others within the limits of former’s abilities. In other words, to live like others! For this to happen, they need our support and understanding.

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