

# STRATEGIES FOR THE INCLUSION OF HEARING IMPAIRED PEOPLE

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**Keywords:** hearing deficiencies, special education, inclusive schools, different approach

**Abstract:** Selection and proper orientation of hearing impaired children in special educational structures and inclusive school is one of the main concerns of specialists in the field of special psychopedagogy. The aims of this endeavour are either to create relatively homogeneous collectives of students (classes, groups), allowing for individual, differentiated treatment in the corrective process within special education programmes, or to include children with hearing impairments in mainstream classes whenever possible. Orientation must be preceded by early detection, followed by operative screening. Both the detection and differentiation of children with hearing impairments and their selection and classification in the appropriate category of disability, are part of the so-called phenomenon of external selection, that should be done with utmost proficiency, promptness, and interest.

**Cuvinte cheie:** deficiențe auditive, învățământ special, școli incluzive, abordare diferențiată.

**Rezumat:** Selecția și orientarea adecvată a copilului cu deficiențe auditive în structuri de învățământ special sau în cadrul școlilor incluzive este una din preocupările specialiștilor din psihopedagogia specială. Dezideratul acestui demers îl reprezintă formarea unor colective de elevi (clase, grupe) relativ omogene, care să permită tratarea individuală, diferențiată, în procesul corecțional din cadrul învățământului special sau încadrarea copilului cu deficiențe auditive, când este posibil, în cadrul claselor cu program normal. Orientarea trebuie să fie precedată de o depistare cât mai timpurie, urmată de o triere operativă. Atât depistarea, diferențierea copilului cu deficiențe auditive cât și trierea, încadrarea în categoria de deficiență corespunzătoare, sunt acțiuni care se includ în așa-zisul fenomen de selecție externă, ce trebuie efectuată cu maximă competență, promptitudine și interes.

## INTRODUCTION

### 1. Diagnosis

The action of diagnosing children with hearing impairment is currently carried out by diagnosis and screening committees within clinics. Identification at this level of children with hearing impairment involves complex investigations: medical history, social inquiry, medical diagnosis, psychological and pedagogical diagnosis, diagnosis of speech. In difficult cases, that require more sensitive investigations, additional psychological, pedagogical, physiological, and biological tests are needed for a correct educational orientation of children with hearing impairments. All the literature mentions the need for an early detection of disabilities in order to increase efficiency of therapy; the time of detection should not exceed the age of three, given that mild disabilities can be corrected as early as pre-school. Severe disabilities usually raise no problems in terms of detection (most cases are detected before starting primary school), or in terms of educational orientation, such cases being only suitable for special education. The process of hearing impairment detection differs from country to country. In our country, the act of identifying children with hearing impairments is performed at the level of clinics and children's hospitals, while diagnosis and educational orientation is done by county diagnosis and screening committees. There are internal selection committees within special schools, that work with the student population of the unit, by following the children's conduct throughout school and by making decisions about their inclusion in different classes/groups, about necessary reviews, or about a possible inclusion in mainstream education. The training and

education of children with hearing impairment is based on knowledge of organic and functional disorders in their dynamics. The study of these disorders should be done from the standpoint of the various disciplines concerned. The child is an inseparable whole; he/she is a synthesis of social, affective, and psychophysical relationships and reactions to the environment. No specialist, be it a doctor, a teacher, a psychologist or a sociologist can claim full knowledge of the child. Therefore, overall knowledge and understanding of a child's personality is possible only through team work (Anca, 2000). Medical diagnostic methods consist of interpreting the anatomical and physiological symptoms of disabilities. Only on the basis of medical examination can specialists determine the etiology, limits, and prognosis of various disorders. The most effective methods are the clinical history and examination (somatic, neuropsychiatric, ENT). Clinical investigation allows, on the one hand, the analysis of etiological and physiological mechanisms underlying the primary symptom, and on the other hand, the development of a scientifically based clinical diagnosis, which is the first step in knowing the child. This is the essential step in making a diagnosis of the disability that will determine the appropriate choice of corrective and educational activities. Identification of the primary symptom parameters and of the primary morphofunctional defect is achieved primarily through medical diagnosis: otorhinolaryngological diagnostic (ENT). However, the primary defect may be accompanied by secondary defects that influence each other in various ways, causing specific deviations of development, with repercussions on the child's personality. The summary and processing of data

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provided by the medical diagnosis correlated with the psychopedagogical diagnosis, as well as the identification of the relationship between the primary defect and the possible secondary defects underlie the defectological diagnosis, which is the diagnosis that assesses disabilities from the perspective of the educational process. Unlike the medical and psychological diagnoses, the defectological diagnosis includes references to the educational and compensatory potential of the child. By taking elements from the other diagnoses, which are relevant to the education process, the defectological diagnosis is aimed at identifying the corrective-adaptive potential of children with hearing impairments. It will determine the type and degree of impairment, compared with the characteristics of the damaged function. As a summary of medical data and psychopedagogical findings, the defectological diagnosis also includes information on the child's capacity to compensate for his/her hearing impairment, as prognostic factors. An essential condition for compensation is the training and special education provided for the child (Anca, 2003). The process of making a diagnosis includes various aspects regarding a broad range of extremely complex issues. The medical contents of the diagnosis, which should include comprehensive data, are supposed to provide specialists in psychopedagogy and defectology with the grounds for a possible inclusion of children with disabilities in mainstream education programmes.

For children with hearing impairment, the chance to achieve the maximum potential of development during the intensive and specific process of training and education requires not only a timely diagnosis, one made as early and as accurately as possible, but also a thorough diagnosis that should include the type of hearing loss, the results of clinical and laboratory investigations, hearing loss in dB (decibels), the use of hearing prostheses. The types of hearing loss in children are so varied that their identification requires a very thorough clinical, anamnestic and laboratory investigation.

a) Congenital hearing loss may be:

- recessive hereditary hearing loss (40.60%); hearing loss caused by obstetrical trauma as the initial factor or as an auxiliary element in a pathological complex (11.15%); hearing loss caused by nuclear jaundice (Rh incompatibility, estimated at 3-10%); hearing loss caused by post-rubeolar embryopathy (1.5%); early heredosyphilitic hearing loss, thyroidian hearing loss (from cretinism); hearing loss caused by hydrocephalic idiocy; hearing loss caused by Hurler-Ellis syndrome. Other factors that contribute to this type of hearing loss are: alcoholism, epilepsy, ear malformations, consanguinity between spouses, physical and mental trauma of the mother during pregnancy etc. b) Acquired hearing loss (occurring after birth) may be: post meningoenephalitis hearing loss; hearing loss caused by neurotropic viruses; hearing loss caused by streptomycin intoxication; dominant hereditary hearing loss (when one of two individuals of the same generation suffers from hearing loss, one of the ascendants always suffers from the same disorder, while the descendants of those who do not have the disorder will be free from it); hearing loss that occurs later, after speech acquisition; late heredosyphilitic hearing loss (that becomes manifest around the age of 10-15, especially in women); hearing loss caused by Lobstein disease (osteopsathyrosis - predominantly hereditary disease). The etiology of acquired hearing loss can also include: other infectious causes (kanamycin, neomycin, sodium salicylate, quinine, drugs with toxic, elective effects on the acoustic nerve, causing acoustic neuritis). The clinical and audiometric investigation, carried out with more accuracy after the age of 5, allows: assessment of the degree of hearing loss, establishing etiology, applying treatment, use of hearing aids, and

rehabilitation. The etiologic diagnosis of hearing loss is based on clinical and laboratory examinations, and goes through all otic pathology. Sometimes etiology remains unclear.

The hearing impairment is often the only pathological alteration, but sometimes hearing loss may be associated with other disorders that are independent or connected to it by etiology; while other times hearing loss and related disorders are correlated, but no common etiology can be identified.

Of the obvious disorders, the ones that should be monitored and diagnosed in children with hearing loss, are mainly: associated dysplasias, sensory disorders (amblyopia, vestibular disorders), motor disorders, mental and behavioral disorders.

All these disorders must be identified and included in the clinical diagnosis and in the orientation.

Assessment of the child's mental level plays an essential part in his inclusion in the education system. This is also important when it comes to deciding whether to use hearing aids, given that the use of a hearing aid requires a minimum level of intelligence and physiological integrity of the cerebral cortex. When recommending equipment, based on the results of IQ tests, Bourguet and Geofry state that people with disabilities and an IQ between 65-85 need an adapted education, while those with an IQ under 65 currently cannot benefit from any type of education. In their case, the assessments of the level of language development and of their adaptive potential is indispensable for an adequate school orientation.

Unfortunately, the lack of a uniform methodology, of a suitable diagnosis tool, the insufficient training of specialists, the relatively limited experience in the school orientation of children with hearing impairments result not only in incomplete diagnoses in the records of hearing impaired individuals, but also in inaccuracies that result in an inadequate school orientation of such children.

Therefore, due to the lack of a complex examination methodology and of a unified view when it comes to classifying categories of deficiencies, diagnoses are mostly general in nature, and fail to mention the level and complexity of the deficiency. The student's general somatic state, his physical development, the disorders associated with the primary defect are often not mentioned. The diagnosis often does not provide information about the personality of the child with hearing impairment, about the interrelationships between the primary deficiency and the possible secondary deficiencies, about their relationships and mutual conditioning, as well as their influence on the child development. There can also be missing details on compensatory and corrective-educational possibilities and on the level of psychomotoric or cognitive-intellectual development, essential elements for a comprehensive approach to student education.

Therefore, the diagnosis is often inaccurate or inconsistent. The clinical diagnosis in children with severe hearing impairment is often proven to be false by the audiogram results. Outcome: children with hearing impairment included in schools for the deaf, deaf children included in schools for the hearing impaired, and children with mild hearing loss, which may be included in normal schools, are oriented towards special education.

### **2. Family environment and the child with hearing impairment**

Children with hearing impairment may pose problems for their siblings, because they will absorb a great deal of their mother's time and attention. Some children with hearing loss progress so slowly that their progress is almost imperceptible for their parents. This may prove so for everyone involved, therefore the whole family must be optimistic and confident in

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the child's potential (Gherguț, 2001).

Another problem arises from the diversity of standards against which healthy children and impaired children must be treated; it occurs when there are children of different ages in a family. The attitude of the healthy children depends entirely and exclusively on their parents' attitude, on the mistakes they can make that will alter the true picture of the natural progress of events. If the parents have a sound and clear attitude, they will find in their healthy children the most valuable, honest and efficient support. But if they consider it unfair to apply different educational standards to the child with disabilities and to the healthy children in the family, the children will develop a natural feeling of resentment.

Up to the age of seven, children usually participate to a great extent in the conflicts and experiences they parents go through, without there being open communication among them. When parents learn to master the ambivalent relationship between themselves and their children with disabilities, they learn to manage both the symbiotic aspects that make the child's needs become their own, and the individual aspects whereby the child's efforts are felt to be those of a free individual in his own right, who struggles to assert himself. Then the other children in the family will not only be eager to help, but will soon take over. They will not encounter the slightest difficulty in meeting the specific needs of the sibling with hearing impairment, while treating him/her as their equal.

Left unresolved, conflicts in the parents' subconscious regarding the acceptance of hearing impairment can cause serious harm to the other healthy children, even when an open, positive decision has been made in this regard. In most cases, the response of healthy siblings will not be aggressive, but one of isolation, seclusion, regression, increased anxiety and even profound emotional shock, especially if they have a delicate constitution. Unfortunately, such situations lead to the exclusion of children with hearing impairment from the family, instead of solving the parents' fundamental problem.

It is essential that the whole family should not change their lifestyle and reduce their needs to those of the child with hearing impairment. On the one hand, the family can be a source of frustration for the hearing impaired child, and on the other hand, the child also has the ability to frustrate the whole family, which subsequently leads to a worsening of the situation and the impossibility of integration.

A symbiotic family relationship is ideal in which the needs of each member should be met and harmonized with the needs of the other members.

This is certainly more difficult to achieve when the child with hearing impairment is an only child, because parents will tend to focus exclusively on the child's needs. If parents are not careful and tactful, this will help create an atmosphere that will only worsen the child's problem.

The entire family needs to have a mature attitude and not make the child ever doubt the love of his parents. Even when the child causes suffering, or when restrictive measures need to be taken against him/her, the loving relationship needs to be preserved. It is essential that parents react when they are hurt, troubled or afraid, and not according to a particular ethical or educational principle. The child needs to feel the joy and suffering or disappointment his actions produce, but not indirectly. He needs to feel that his family's disapproval of his actions does not mean that he will be excluded from family life. The hearing impaired child needs to feel that the whole family is convinced of his good intentions, of his wish to be loved and to do things that will bring them joy. Even when he fails, the family should not suspect him of malice and premeditation, but believe it was just a mistake that the child wishes to make

amends for as soon as possible. The family, the parents in particular, should never think that the child's success or failure is a measure of his intent. However frequently the child may fail, his intentions may still be positive, only their accomplishment may be delayed.

This atmosphere in which "mistakes are not kept track of" is indispensable for any child's development and even more so for children with hearing impairment, who have to overcome many obstacles, especially their own disability, in order to be successfully integrated in their family and in society.

What is essential for parents of children with hearing impairment is to understand and accept the fact that their children can learn. Once this is acknowledged, the choice of language learning methodology is mainly up to the parents and is no longer a problem in itself. Given their lack of experience, parents may think that the child's hearing impairment limits his ability to acquire speech.

Studies consistently show that parents who receive information about hearing impairment and participate in special working groups, gradually become able to accept their child's deficiency and begin to make plans for his immediate and long term needs. Parents accept and understand their children's hearing impairment and need to be allowed to be upset, angry and feel frustrated. It is difficult for parents to keep a balance between their own emotions and the educational and therapeutic needs of the child. The role of specialists is to help the child begin speech acquisition in the best conditions and, at the same time, to help parents learn how to continue the work of recovery at home. It is beneficial for the child that both parents be involved (Popovici, 1999).

Preverbal communication, and, in particular, the quality and success of interactions, is an important factor in speech acquisition. He acknowledges the important role of verbalization by the parents during the babbling stage and the influence of this behavior in the further development of speech. Children who are diagnosed and use hearing aids early on, have a greater chance to benefit from the auditory field around them. Children who are diagnosed later, if included in a special program, will also be able to acquire speech, but their voice quality will rarely be as good as that of children who were diagnosed earlier, used hearing aids, and benefited from an appropriate audiology program. Early babbling in itself may have communicative intent. There are many parents of hearing impaired children who include their verbalization in their verbal games with the children. The parents' contribution is higher when they do not ignore the children's vocalizations and talk to them as much as possible. Most teachers and researchers agree that the problems of hearing impaired children in terms of speech acquisition stem from the way they are helped, in as far as the communication method is concerned.

A full communicative approach by the mother, that is the complementary use of voice and gestures, allows her to provide a stimulating communicative environment for the child, as early as his first months of life. There are a variety of types of interaction, according to the mother and the context of activity with the child. But in addition to these variables, there is also a set of constants. Mention should be made of the importance of physical contact and touching in the process of communication between mothers with hearing impairment and their children.

### **3. Barriers in communication with hearing impaired children**

Obstacles to the first dialogues between parents and their child may come up in various situations. Difficulties in treating the child as a "conversation partner" become obvious when the child is unable to integrate himself because of his disability. Awareness of the disability and its irreversible nature may

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disrupt to a greater or lesser extent natural parental behaviour (Păun, 1998).

First obstacle: at first the mother is unable to establish a relationship with her hearing impaired child, and it is precisely the frequent and repeated interactions with the child that build up a dialog.

Second obstacle: the sense of educational responsibility becomes imperative and makes the mother adopt a directive, normative style in her interactions with the child, rather than a playful one. According to Bruner, if the playful attitude that usually characterises interactions between mother and child disappears, these interactions become sterile, as everything becomes too deliberate and too serious, and communication regresses.

Third obstacle: the mother fails to see her child as “a speaking being”, while this belief plays the part of a “creative illusion” in any mother-child relationship. This illusion allows the mother to ascribe some kind of intentionality to the child during the prelinguistic stage; to see and recognize various behavioral manifestations of the child as acts of communication, as expressions of ideas and feelings; to respond in various ways to these “messages”. When the child has a severe hearing impairment, this “creative illusion” is likely to be compromised.

At the same time, one should not underestimate the importance of hearing aids for vocalization. They seem to prevent the cessation or reduction of vocalization seen at a particular stage of development. Acoustic information provided by the hearing aids improves hearing performance of hearing impaired children, on all the characteristics considered critical. Thanks to such equipment, vocalization becomes more melodically diverse, but unfortunately parents fail to acknowledge it.

Auditory feedback received by children to their own vocalizations encourages further vocal performances. The relationship between prattling and listening is very significant. Prattling noises disappear in the absence of acoustic information, even when social stimulation is very intense. Comparisons with the voice production of hearing children show that voice production of hearing impaired persons is characterised not only by delay, but also by deviation.

In one form or another, the mother is very sensitive to her child's voice productions. The mother's ability to see as communication attempts all voice productions by the child appears to facilitate the formation of rhythmic and melodic structures in the child.

#### 4. The importance of early intervention

Normal hearing works 24 hours a day, through walls, in the dark, over greater distances. Along with sight, hearing controls the child's motor coordination and his awareness, bringing things and happenings in the spotlight. Therefore, any hearing problem brings about a diminishing of the other senses, unless special care is given to compensation. This requires a planned intervention, directed towards the use of both residual hearing and of the other senses. The question arises: how can an active and healthy sensory stimulation of children with hearing loss be so planned as to make full use of residual hearing, to replace inevitable loss with information from other senses, to develop stimulation of the other senses in order to maximize their complementary contribution in information acquisition (Ungureanu, 2000).

Early use of hearing aids needs to be based also on the limited and imprecise information that can be obtained initially, and to be followed by frequent reassessments to emphasize the need to find additional ways to provide the best possible sensory stimulation and development (Preda, 2000).

Sight, touch, hearing and motion can be used

simultaneously, in a number of ways. Body contact between mother and child, as well as rhythmic movements (swinging, rocking, singing, dancing) are activities that stimulate sensory activity. Touch, vibration and sight can be used to attract and direct attention. There are various interesting expressive means, such as imitation, mimicry, mime, that can be used to stimulate the child's curiosity, to ensure awareness and retain attention.

Mimic language spontaneously used by hearing impaired parents includes many of the aspects already mentioned and has proved to be one of the most effective means of compensating for the hearing loss and helping the child work up his full potential, despite a severe hearing loss. The use of sign language by hearing parents, also ensures the development of hearing impaired children. However, hearing parents should make efforts to meet and watch parents with hearing loss as early as possible, and should try to include in their own body language as much of the natural body language of hearing impaired parents.

## CONCLUSIONS

Hearing impairment may have negative effects on the following aspects: emotional, communicational, social, cognitive. The aim of early intervention is to prevent the situations mentioned above from occurring, thus offering hearing impaired children the same opportunities of development as hearing children. Recent research and practical experience shows that the vast majority of hearing impaired children, if diagnosed early, provided with appropriate hearing aids and stimulated, learn to hear and are able to develop their speech the same way as any hearing child.

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