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Procedia Social and Behavioral Sciences 2 (2010) 2156–2161

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**Procedia**  
Social and Behavioral Sciences

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WCES-2010

# Ways of intervention in the education and recovery of children with multiple visual disabilities

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Received October 19, 2009; revised December 28, 2009; accepted January 11, 2010

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## Abstract

The inexistence of a totally coherent way of intervening in the case of multiple pathologies in children was also felt in the case of visual disabilities which incited to the finding of some efficient solutions that fit optimally on the casuistry, socio-material conditions, etc. The project “Luminita”, initiated in 1997 as a result of the cooperation of the Ability Foundation “Speranta” and the Perkins School for the Blind in Boston through the Hilton/Perkins Program represented an adequate response to the existent situation. The research followed the implementation, performance and the perfection of education – rehabilitation programs, improvement and extension of the education and rehabilitation services but also the formation and perfection of specialists, guidance for parents, etc. The specificity of the methodological alternatives used, of the individual rehabilitation programs and material resources provided, the partnership levels and the results obtained, the problems and difficulties met, represent the subject of this paper.

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*Keywords:* Multiple visual disabilities; educational and recovery services; evaluation; guidance; advocacy; professional skills.

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## 1. Introduction

The inexistence of a totally coherent way of intervening in the case of multiple pathologies in children raise special problems as far as the education and recovery aspects are concerned, because of the diversity and complexity of the cases, and this has been felt even in the case of multiple visual disabilities, which has incited to the finding of efficient solutions that optimally fit on the casuistry, socio-material conditions, etc.

The project “Luminita”, initiated in 1997 as a result of the cooperation of the Ability Foundation “Speranta” and the Centre of Resources and Educational Assistance “Speranta”-and the Perkins School for the Blind in Boston, USA, through the Hilton/Perkins Program had as a main goal the improvement of and extension of the educational and recovery services existent for blind children with multi-handicap. Because of its efficiency, it is performed even today with remarkable results, representing an adequate response to the existent situation.

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## 2. Methodological alternatives

The team responsible with solving this problem is made of psychologists, speech therapists, ergotherapists, art-therapists, kinetherapists, psychopedagogs, neuropsychiatric doctors and physiotherapists has aimed at not only the implementation, performance and perfection of educational – recovery programs for children with multiple visual disabilities, but also the improvement and extension of the educational and recovery services of which blind children with multi-handicap benefit and the formation and perfection of specialists who will work with this category of children with special needs, the guidance of their parents, the elaboration of specialized informational materials for parents, teachers and specialists, the performance of advocacy type activities, the development of partnerships with different factors of the community, the promotion of voluntary work of students, hereby developing a specific methodology for the recovery activity and projecting special institutions for nursery school children.

Besides all the other aspects, the development of the teachers' professional skills on types of specific intervention (evaluation/reevaluation and psychological, medical, social and specialty diagnosis, therapy, ambulatory and home services, sensorial integration, orientation and mobility, elaboration of intervention programs etc.) speech therapy, ergotherapy, orientation and mobility, kinetherapy, stories club, music therapy, art-therapy, parental guidance, elaboration of intervention programs, represented objectives which are vital for both the efficiency of the specialized interventions and the evolution of each child involved in this project we called hope, light - „Luminița”. Having as a target group the blind children with multi-handicap and their families, the project aims at:

- putting together 2 groups of nursery school for blind children with complex needs,
- developing and extending the children's daily program in the Centre of Resources and Educational Assistance “Speranta”,
- adapting materials to the necessities of blind children with multi-handicap,
- offering services of evaluation/guidance and recovery services,
- developing a specific methodology for the recovery and education activity,
- ensuring daily lunch and transport for children (special minibus),
- offering guidance services for the children's parents,
- elaborating specialty informational materials for parents, teachers and specialists

**The specific performed activities have been those of:** psychological and medical evaluation, physiotherapy/electrotherapy, communication and speech therapy, personal autonomy, orientation and mobility, acknowledging the environment, art, music therapy, relaxation Snoezelen. In section 2.1 we shall describe briefly some of the sequences from the personalized intervention programs and the weekly schedule of some of the subjects:

### 2.1. Personalized Intervention Program

**CHILD : Nadia CASE MANAGER : Olivera**

#### **General Objective 1 : Improvement of Movement**

*Specific objectives:*

- Acquirement of digital forceps
- Improvement of the capacity of bimanual coordination

*Operational objectives:*

- To introduce balls in the bottle/jar, to make up one piece puzzles to turn pages one by one
- To put 4 circles on a frame, to roll wax rodlets, to make wax spheres, to put together the parts of a toy, to paint with the finger.

#### **General Objective 2: Improvement of the Capacity of Sensorial Integration**

*Specific objective:*

- the formation of compensatory abilities
- the improvement of the capacity of taste, olfactory, tactile differentiation

*Operational objectives:*

- to identify an object according to its sound, to identify the place where it comes from (in front/the back, up/down), related to his body
- to explore materials of different textures (fur, linen, silk, wool) to differentiate according to taste sweet/salty, sour/sweet, bitter/sweet food, to tactile differentiate between cold and warm, austere/even, soft/hard, to olfactory differentiate smells (food, nature)

Table 1. Weekly activities specific to recover and general development (Schedule Alexia)

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9,00 - 9,30	Good morning <b>Group activity</b>	Good morning <b>Group activity</b>	Good morning <b>Group activity</b>	Good morning <b>Group activity</b>	Good morning <b>Group activity</b>
9,30 - 10,00	Personal autonomy <b>group activity</b>	Personal autonomy <b>Group activity</b>	Personal autonomy <b>Group activity</b>	Personal autonomy <b>Group activity</b>	Personal autonomy <b>Group activity</b>
10,00 -10,30	Language and communication <b>Group activity</b>	Movement <b>Alexia + Gabi</b>	Language and communication <b>Group activity</b>	Functional activity <b>Group activity</b>	Sensorial stimulation <b>Group activity</b>
10,30 -11,00	Cognitive stimulation <b>Alexia</b>	Sensorial stimulation <b>Group activity</b>	Tactile stimulation <b>Alexia - Sandra</b>	Environment knowledge <b>Group activity</b>	Cognitive stimulation <b>Alexia</b>
11,00 -11,30	Visual stimulation <b>Alexia</b>	Communication	Orientation and mobility <b>Alexia</b>	Visual stimulation <b>Alexia</b>	Eye-movement coordination <b>Alexia</b>
11,30-12,00	Music <b>Group activity</b>	Art <b>Group activity</b>	Music <b>Group activity</b>	Art <b>Group activity</b>	Stories club <b>Group activity</b>
12,00-12,30			Ludic activities <b>Group activity</b>	Movement <b>Alexia</b>	

**3. Results**

The quality of education and recovery services offered within the project have been improved considerably from year to year and it has ended with the official opening of the Nursery school for children with multiple visual disabilities “Luminita” in 24 January 2006, accomplishing the most wanted objective of the project. The idea of the Nursery School “Luminita” was born from the principle of education for everyone, education for each and it is a project carried out in partnership with the Centre of Resources and Educational assistance Speranta, Timisoara. The aim was an increase in the quality life of children with multiple visual disabilities through the extension of the provided educational services, the insurance of access to target groups:

- 22 children with multiple visual disabilities with ages between 1-10 years
- the families/guardians of these children,
- students from profile faculties and their integration in the society as active members.

Aimed at objectives:

- *performance and perfection of an educational/recovery program for children with multiple disabilities*
- *the development of a specific methodology in the educational-recovery process*
- *the insurance of necessary conditions for a proper development of the educational – recovery process*
- *the development of teachers’ professional skills according to types of specific intervention*
- *the offer of guidance and information services for the family*
- *the integration of children with multiple disabilities in special or normal schools*
- *the transformation of parents in permanent co-therapists not occasional ones*

**The services offered** highlighted through their seriousness and quality were materialized in:

- *Evaluation, reevaluation and psychological, medical and social diagnosis*
- *Specialty evaluation on therapy*
- *The improvement of the educational and recovery activity by applying the latest didactic strategies*
- *The carrying out of therapeutic procedures and instructive-educational, recovery/rehabilitation activities for children with multiple disabilities*

- Parental guidance
- The development of the specific didactic data base

Among the specific activities offered by the specialists of the nursery school one can list:

- **Daily compensatory educational/recovery activities for three nursery school groups;**
- **Educational –recovery activities in the Ambulatory Service for the children that have exceeded nursery school age**
- **Specific stimulation therapies within Home Services for the children with severe disabilities.**

The educational and recovery program within the nursery school is performed in a period of 3 hours in which the children participate to diverse individual and group activities:

**Group activities:** music, art (dactilo painting, waxwork ), personal autonomy, ludic, environment knowledge, communication, stories club;

**Individual activities:** cognitive stimulation, pre-braille elements, sensorial stimulation (tactile, olfactory, taste, visual), movement, pre-graphic elements, orientation and mobility, kinetherapy.

The severity of the disabilities imposed the presence of a reduced number of children, 6-8, in each nursery school group. This way of structuring the nursery school groups is according to the methodology of special education.

The **multidisciplinary team** made up of psychopedagogos, neuropsychiatrist doctor, psychologists, kiotherapists, social assistant, physiotherapist doctor, music therapist, has permanently searched for efficient solutions for all the problems of each of the cases.

The contents of the **Curriculum** approached : Sensorial movement education, Cognitive education, Language and communication, Personal and social autonomy, Environment knowledge, Artistic education (music, art), have all been adapted according to the pathology and its gravity, chronological and mental age, educational antecedents, individual evolution rhythm. And since the transformation of parents in co-therapists, not occasional ones, represented one of the specific objectives of the project, one has: *identified the needs of the parents based on the elaborated instruments and their guidance (parental, couple) through home visits, meetings of the mini-team with them, informative guides and materials, videos for parents and a partnership contract between the Centre of Resources and Educational Assistance and the parents of the children in “Luminita” Project.*

The photo camera captured important moments from the common activities that marked evolution at the level of socializing, orientation and mobility, personal autonomy, environment knowledge, communication and language, visual stimulation.



Figure 1. Moments from therapeutic activities realised with parents

#### 4. Discussions

The correctness of the diagnosis ensured by the complexity of tests applied, the personalized recovery programs, the human and professional quality of therapists, the specificity of the undergone evaluations according to the gravity and type of the multiple pathology from three to three, or six to six months, allowed the examination of the evolution of these children and facilitated the improvement of interventions according to the response reactions of the children. A file with all the evaluations and individual programs that ended with a descriptive report and a reevaluation, has been drawn up for each child. The recovery and development programs consisted of specific speech therapy activities, ergotherapy, kinetherapy, eurythmy, and within those of arttherapy – drawing, painting (on polystyrene, eggs, spoons, glass, painting elements.). The manipulation of puppets and interpretation of dramatic texts, waxwork, music therapy and zoo therapy solved the emotional problems that no other miraculous solution

could do. Some elaborated materials were not used in the purposed for which they were created but adapted and adopted in educational or recovery components for obtaining some indispensable skills. The best context for their use, establishing the levels of difficulties and their succession and the ways of intervening on the one with problems, were important to obtain maximum efficiency.

In the first year the project developed exploratory and with the ambition of finding the best variants of individual intervention, and to adequately equip the spaced designated for the offices. Through successive quantity accumulations, the services were performed using the latest technology. Even today, after 12 years from the start of the first project, it continues successfully, representing an efficient intervention alternative in the case of children with multiple visual disabilities. As in any other activity, there have been moments of difficulty regarding the level of adapting of the children to the new educational environment, of accepting the therapies and the therapist because of the high level of dependence of one of the parents, the persistence of crises moments in the evolution of the child despite the complexity of the interventions of the mini-team of specialists, inaction, the representation of different emotional status with the help of some mimical structures formed within reflexes, of gesture actions as a result of social learning (the most accessible for the blind was expressing joy, in all the other cases they experienced great difficulties), etc.

## 5. Conclusions

The specification in behavioural terms and control indexes of the aims and objectives, the use of reinforcements (food, games, music), of indicators, the permanent evaluation of the child's progress, the placement of the support teacher and of the parents in the middle of the educational process and assuming responsibility of the therapists for the progress of lack of progress in the evolution represented some efficient interaction techniques used.

The common activities and the special interpersonal relationships transformed all those involved in a big family whose members acquired a series of therapeutic techniques in order to help the child and also to help themselves overcome the frustration that gives them the bitter taste of an inexplicable injustice.

The main pedagogical goal was that of developing an instrument that could be used efficiently in:

- **the development:** of some compensatory behaviours capable to facilitate the social integration, of a positive emotion, of a general sensorial sensitivity, of self trust, action independence,
- the practice of all types of communication in order to keep the presence of disposition of interpersonal communication
- temporal and space orientation

The strong points of the project were represented by:

- *the application of development and therapy steps from the beginning and the tracking of the evolution of the child throughout the interventions*
- *the approach of the child from the perspective of a complex personality trying to positively influence the physical, social, psychosocial environment*
- *the position of the case manager as a key person for all the relations regarding the child within the institution and the family*
- *the fact that within the same space and time the child benefits from many sessions of therapy that complete each other and have as a result the development of his personality.*

## 6. Recommendations

Following the effects of the interventions made within these alternative methodologies, one has made an elaborated analysis and has established a series of recommendations that ensure:

- *the transfer and continuation of the project at a superior quality level*
- *the continuation in good conditions of the recovery and development therapy at the level of the family*
- *the selection of the recovery structures so that they optimally correspond to the pathology and the objectives and effects aimed at*
- *the creation of some interaction alternatives that can compensate for the incapacity of the subject to get totally involved in the relation imposed by the pre-established algorithms*
- *the use of some special elements conducting and concentrating the attention*

- *the insurance of a high level of independence in the interaction*
- *the maintenance of a constant equilibrium between the design and the kinetics of material supports*
- *the introduction of new elements of evaluation of the results obtained after the therapeutic and development interventions.*

But besides all these things, there is always the commitment of the adult (doctor, therapist, psychologist, parent) in the fight of solving the problems that at first sight seem with no viable solution and in unconditionally offering affection and emotional security to the one that does not work. And since the project will go on, due to its efficiency, it is in the hands of the members of the research team to look for and find the best strategies to obtain better results for a greater number of children with multiple visual disabilities.

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