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Significance of Rehabilitation Camps in Hearing and Speech Therapy of Hearing-Impaired Children

Abstract

One of the important elements of the therapy of young hearing-impaired children is rehabilitation camps. They accelerate the process of language and communication skills acquisition. In the current social-legal and financial situation organisers of rehabilitation camps may encounter some difficulties. The aim of the research was an attempt to determine the role of rehabilitation camps by means of a diagnosis of their effectiveness using parents' and therapists' opinions and objective results of progress in the development of hearing, communication and language skills in children. The research demonstrated effectiveness of rehabilitation camps in the scope discussed.

Keywords: rehabilitation camp, therapy of hearing-impaired children

Introduction

Rehabilitation camps, understood as several-day stays of a certain group of parents, children and therapists away from home to achieve aims described in an earlier elaborated program (Pankowska et al. 2001) are in various variants an element of therapy of hearing-impaired children in many countries. In Poland, due to possibilities of financing, rehabilitation camps lasting up to two weeks have been adopted, assumptions concerning organization of rehabilitation camps for disabled persons are precisely formulated in two legal acts (Journal of Laws, 2011, No. 127, item 72 and Journal of Laws, 2007, No. 23, item 1694).

The main idea of rehabilitation camps for hearing-impaired children is shaping such an environment in which hearing, communication, and language skills can be effectively trained. Special emphasis is put on socialization, building relationships in a group, organization of active free time and recognition of individual hearing capabilities. An important aspect of rehabilitation camps is active participation of the child's parents or carers (Pankowska et al. 2001).

Financing

Rehabilitation camps are financed, among others, by the State Fund for the Rehabilitation of Disabled Persons (PFRON) [www.pfron.org.pl]. Also, non-governmental organizations, such as POLSAT Foundation, TVN Foundation, Orange Foundation and others, fulfil an important role in financing rehabilitation camps. Within their own activity non-governmental organizations also obtain funds for rehabilitation camps from other sources, among others, from European funds. It is estimated that in 2014 the real cost of stay at a camp of a child and one carer ranged between PLN 3700 and 4500 (EUR 880–1070). The costs incurred by individual families depend on the capabilities of finding sponsors by an organiser and the financial situation of a family. There are opportunities of free participation in a camp (Orange Foundation) or acquisition of individual subsidizing (e.g., from PFRON and other funds). However, many families cover the entire cost themselves.

In Poland in 2014 the organisers of camps for hearing-impaired children and youth, which most often take place in the summer, were among others: The Orange Foundation, The Institute for the Deaf and The Association of Parents and Friends of Hearing Impaired Children and Youth "To Hear the World" ("Usłyszeć Świat"), The Polish Foundation for Assistance To All Children With Hearing Problems ECHO, the Orator Centre and The Society of Parents and Friends of Hearing Impaired Children. It can be assumed that in the current year over 200 hearing-impaired children have received support in this form.

Research Methodology

The aim of the research was an attempt to determine the role of rehabilitation camps in the widely understood therapy of hearing-impaired children by analysing opinions of parents and therapists on the effectiveness of camps (qualitative research) and a diagnosis of therapeutic results (quantitative research). Research

on the effectiveness and legitimacy of camps may, on the one hand, contribute to the reflection on this form of rehabilitation and, on the other hand, increase organizational efforts to provide the therapy to more and more patients. As a result of actions undertaken, more hearing-impaired children can become more proficient in language communication.

In the analyses results of quantitative research were used. It was attempted to answer the question whether there is dependence between participation of hearing-impaired children in rehabilitation camps (independent variable) and effects in their speech and hearing rehabilitation (dependent variable).

The research on the results of speech and hearing therapy of young hearing-impaired children was conducted within The Orange Foundation's program "Sounds of Dreams" ("Dźwięki Marzeń") [www.fundacja.orange.pl], on the basis of diagnostics according to the Evaluation Card for the program "60 Steps" by Bieńkowska [2007]. This tool allows for an evaluation of a child's communication and language skills. The research is nationwide, long-term and is realized by trained therapists, who observe a child's skills on a daily basis. The research results are entered into an Internet database. Since 2012 they have been used for preparation of detailed reports on the evaluation of the program "Sounds of Dreams" for The Orange Foundation. Researchers' task is to enter point results obtained using the Evaluation Card (effectiveness of a conducted therapy – dependent variable) and additional data which enable to analyse therapy effectiveness depending on the criteria assumed (independent variables), such as a child's age, psycho-motor development, the type and degree of hearing loss, the type of hearing aid, socio-demographic data, participation in rehabilitation camps, experience of a leading therapist and frequency of rehabilitation. The article discusses the results of speech and hearing therapy in the context of children's participation in rehabilitation camps.

In order to find out what parents of hearing-impaired children and therapists think about rehabilitation camps as a form of speech and hearing rehabilitation away from home and outside of a speech therapy room, the diagnostic interview method was used and within it the technique of problem-oriented interview. The researchers' aim was to find out the opinions of parents and therapists regarding the following questions: "What is effectiveness of rehabilitation camps?" and "Should rehabilitation camps be a permanent and necessary element of therapy of hearing-impaired children and youth?" The indicators were inferential in the form of answers to the questions included in the interview questionnaire.

The questionnaire of an interview with a parent consisted of two parts: the first part consisted of 22 questions, which were mostly closed-ended, and this part

of the interview was conducted at the beginning of a rehabilitation camp. The second part consisted of 14 open-ended questions and was filled in at the end of the camp. The questions concerned, among others, reasons for participation in the rehabilitation camp, parents' concerns and expectations of therapists, effects of hearing and speech rehabilitation. The final questionnaire was designed to answer the questions if parents' expectations were met, what kinds of advantages they noticed after their child's stay at the camp.

To examine opinions of therapists - the didactic staff consisting of teachers of the deaf and speech therapists - also an interview questionnaire, consisting of 9 open-ended questions, was used. The questions concerned experience in work with hearing-impaired children and their parents, effectiveness of the therapy held during camps, variety of methods of work and advantages for little patients.

The surveys were conducted during a rehabilitation camp in 2013 (in the winter season) by Maszlucha (2014), a volunteer, and in 2014 (in the summer season) by Bieńkowska, a co-organiser of a rehabilitation camp.

An assumption was made that rehabilitation camps are the optimum form of the rehabilitation of hearing-impaired children, whose aim is to improve their functioning in society and to ensure the best possible preparation for independent life in the future. The therapy away from home creates favourable conditions for practising many social skills, which are indispensable in a group of hearing peers.

Effectiveness of rehabilitation camps in the therapy of young hearing-impaired children

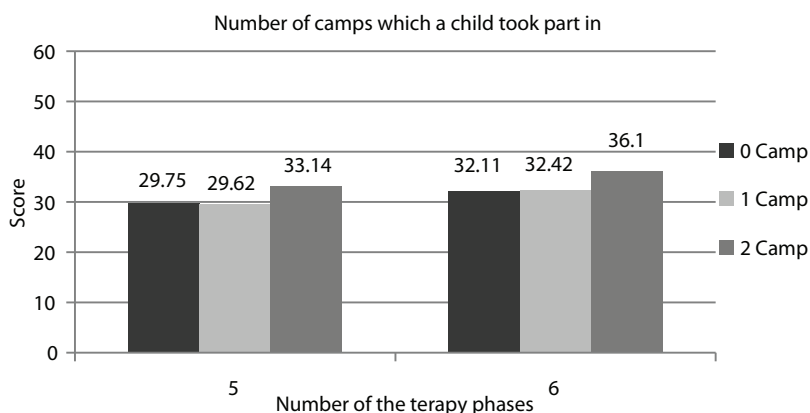
According to its assumptions, children at the age from the 3rd to 49th month participate in the home rehabilitation program "Sounds of Dreams". One of the elements of the therapy, which lasts three years (six half-year phases, 2 hours a week), is participation of a child accompanied by a parent in a 10-day rehabilitation camp. The progress in developing hearing perception, communication and language skills throughout the three-year therapy is systematically evaluated using the Evaluation Card for the program "60 Steps" (Bieńkowska 2007, 2014a,b).

In order to obtain an answer to the research problem, the relationship between a number of camps a hearing-impaired child had taken part in and the effects of hearing and speech therapy was analysed. The source of data gathered is the so far unpublished report from January 2014, which covers examinations of children in 2012 (from January, June, September and December) and 2013 (January, June) (the article co-author, Bieńkowska, is responsible for the merits of evaluation of

the program “Sounds of Dreams”). Out of the group of children examined, the results of the children after the 5th phase of the therapy (111 children – average age 38 months) and after the 6th phase of the therapy (62 children – average age 43 months) who had participated in a rehabilitation camp once (76 children) or twice (64 children) were selected. These results were compared with the results of the children who had not taken part in a rehabilitation camp, were at the same age and had an analogous hearing defect (33 children). Both, after the 5th and the 6th phases there were no significant differences noted in the results between the group that had not taken part in a rehabilitation camp and the group that had taken part in a rehabilitation camp once. However, the analysis of average, general results of the groups, taking into account the criteria of age and participation in two rehabilitation camps, shows quicker development in the group of children rehabilitated both at home and at rehabilitation camps. The difference is at least 3.5 points (8.9%) (cf. Figure 1). Thus, it can be stated, that the child’s participation in two rehabilitation camps by the age of four accelerates the child’s progress by at least 6 months (this is equivalent to 1 phase of home therapy).

The analysis allows for confirming the effectiveness of rehabilitation camps and their significance in faster acquisition of hearing, communication and language skills by camp participants - young hearing-impaired children.

Figure 1. Comparison of average results of therapy effectiveness (according to the program of 60 Steps) in children who have participated in at least one camp with results of the group of children at the same age who have not taken part in a camp



Significance of rehabilitation camps in parents' opinions

The parents taking part in the survey answered the questions included in the interview questionnaire (categorized). The interviews were conducted during the camp which took place in Preszow, Slovakia, within the project "Our Heritage of Borderland - Shaping Cultural Identity in Hearing-Impaired Children", organised by The Society of Parents and Friends of Hearing Impaired Children in Krosno, in cooperation with the Logosluuch Association in Preszow.

Twelve parents (10 women and 2 men) took part in the survey; 8 parents at the age brackets 26 to 40 and 4 parents at the age brackets 41 to 55. Five respondents declared higher education, 4 respondents - vocational education and 3 respondents - secondary education.

Most of the parents examined are convinced that their children¹ willingly participate in therapy away from home and outside of a speech therapy room. They agree that it is more beneficial for children than stationary rehabilitation, it is more interesting, connected with unforgettable experience, positive emotions, it brings visible effects in the form of a new knowledge and skills, teaches how to spend free time actively.

The parents note improvement of their children's pronunciation as a result of hearing and speech therapy, they stress the fact that the children are more self-reliant in everyday psycho-social functioning, which enables them to attend public schools.

The parents who observe intensive and satisfactory development of communication and language skills in their child more willingly make a decision about the child's participation in the next camp. Moreover, they emphasize that contacts with other parents, social development of their children, the opportunities of acquiring further knowledge on rehabilitation at home, close and often sociable contacts with therapists are precious experience. It is also important that parents can spend a lot of time with their children, go sightseeing with them, or just relax. In many cases this is the only holiday trip in a particular year, thus, it is very important to combine rehabilitation and attractive forms of spending free time.

¹ 7 girls and 5 boys at the age 7 to 13 – the average age of children was 8.4 2 persons have moderate hearing loss, 3 – severe hearing loss, 7 – profound hearing loss. Seven children have implants, five children use hearing aids. In the case of 10 children hearing impairment was diagnosed before they were 3, 2 children were diagnosed before they were 6. All the children have been rehabilitated from the moment of being diagnosed in the scope of enhancing hearing and speech (the average period of rehabilitation was 7 years).

The parents were satisfied with the stay. In the parents' opinions the disabled children staying together and different communication exercises in the field were some of the advantages of the camp. The parents stressed many times that during the camp children had learnt tolerance, self-reliance, overcoming barriers in language communication, and supporting each other. They become more open, make friends, and learn to cooperate in a group.

Only 2 parents examined stated that "international" camps did not have any special meaning for the therapy. For 10 parents this kind of camp is more beneficial because children learn new words in a foreign language, learn about another culture, monuments, and customs of another nation. In the parents' opinions, a language barrier was not a problem for the children, and if difficulties occurred, they made the children think and deal with the difficult situation.

For 3 parents the most important advantage of the rehabilitation camp was the opportunity to spend time together with the child and deepen their bond. The remaining parents focused more on describing advantages for the children themselves. The majority of the parents stated that the camp confirmed their conviction that the current therapy was properly conducted and camps were a form of therapy they would use in the future. All the parents examined stated they would recommend this form of therapy to others.

Rehabilitation camps and their role in therapists' opinions

According to 11 specialists taking part in the interview (individual, categorized), several days' participation of parents in the therapy of their children enables them to properly work and proceed at home, and thanks to spending time together, participating in activities and play they deepen emotional family bonds and learn to conduct longer talks with their disabled child. The therapists observe that parents taking part in the camp for the first time appreciate the need for rehabilitation to a greater degree, which is demonstrated by their eagerness to learn about its different forms and to observe effects, not only in their own child, but also in other children. They are more motivated to work in the next school year.

The therapists emphasize that the stay on the camp allowed them to observe a child in social relationships different from those observed in a speech therapy room. Very often the therapists do not have an opportunity of observing how the child behaves in a peer group, what his or her position in a peer group is, how he or she functions in difficult acoustic conditions. In consequence, these observations allow for preparing a therapy plan more precisely, which corresponds to real

needs and abilities of the child. It is essential that during a camp a child should be accompanied by specialists working with him or her during the school year (e.g., specialists from the child's speech therapy outpatient clinic). An additional argument is the fact that these specialists know the child and his or her family so they do not have to spend time getting to know the child.

The therapists listed the following benefits of the camps: the child's socialisation, preparation for regular, intensive work in a group (school duties), hearing training in the open space - natural physical-social conditions, various activities, positive emotional stimuli, which motivate for language communication, exchange of information, experience and observations, support for parents and teaching them. In the therapists' opinions organisation of "international" camps also provides some benefits. They allow for learning about the language, culture and customs of another nation and teach to overcome language and social barriers.

Talks with the therapists confirmed that rehabilitation camps provide more opportunities of observing the child in natural situations, when he or she engages in spontaneous communication with other participants of the camp. During therapy in a speech therapy room artificial conditions for development of language and communication are created. Rehabilitation camps are a natural environment not only for the development of language skills, but they also provide opportunities for creative problem solving, cooperation in a group, holding activities in the field and during everyday situations - self-service, meals, and walks. On the one hand, the presence of parents gives children a sense of safety, and on the other hand, it motivates them. Parents have an opportunity to observe their child, share experience and gain support.

Conclusions

The problems regarding effectiveness of rehabilitation camps have not been a frequent topic of research papers so far. This is probably due to difficult access to persons examined, mainly parents and their disabled children. Additionally, a relatively small number of organisations undertake an effort to organise such camps. Thus, as presented above, not so many people who need support use this form of rehabilitation. However, it should be stressed that due to its multisensory, long-term influence this is one of the most effective forms of therapy for hearing-impaired children and support for their parents.

One of main purposes of rehabilitation camps for young hearing-impaired children is to create the most natural conditions possible for intensive development of language skills. Conducting systematic and intensive hearing, communication and language exercises, taking into account assumptions resulting from neurobiological theories concerning brain plasticity (among others, Flexer, 2011), result in quicker language learning by young hearing-impaired children, which has been confirmed by the research presented in this article.

Camps are an important element accelerating the development of hearing, communication, language as well as social skills in hearing-impaired children at every age. They allow for training important hearing and social skills in conditions close to natural ones, which is indispensable for proper functioning in everyday life and cannot be achieved in speech therapists' rooms. This is confirmed not only by the opinions of therapists and parents, but also by measurable results. With regard to the above, providing therapy in the form of rehabilitation camps to a larger number of children and monitoring its measurable results seems to be essential. Financial obstacles cannot be a reason for abandoning this form of therapy. To sum up, it should be stated that:

- rehabilitation camps, thanks to intensity of therapeutic activities, significantly contribute in a short time to developing hearing, communication and language skills in children;
- parents acquire necessary skills and communication strategies;
- socialisation of children, forming new social skills in a peer group, in interactions with adults - therapists, parents of other children – is an important aspect;
- staying away from home enables participants – parents and their children – to spend time together, which is often difficult in everyday life due to numerous duties and limitations;
- therapists have an opportunity to observe and correct, if necessary, language behaviours of children and parents on a current basis.

The research results presented are indicative only and we will continue our research on the questions posed. However, the data obtained allows for confirming the assumption that rehabilitation camps are a form of therapy highly valued by parents and therapists, which in spite of much organisational effort needed should be continued due to its significant effectiveness in the therapy of young hearing-impaired children.

Postulates

Thanks to the Polish Universal Neonatal Hearing Screening Program children receive hearing implants at a very early age. Early, multi-disciplinary activities are undertaken to prepare children for beginning education in public schools. In connection with lowering the school age also with regards to hearing-impaired children, participation of a hearing-impaired child and his or her parent (carer) in at least two rehabilitation camps before beginning education should be a standard. This will allow for an increase in the child's educational chances at a later age. In the case of children at school age and adolescents a stay and therapy away from home allow for practising many social skills. Rehabilitation camps should remain a standard solution in the long-term therapy of hearing-impaired children and youth.

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