

Early intervention in Bosnia and Herzegovina- a description of a model implemented in Zenica-Doboj Canton

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Abstract

Early intervention (EI) is widely recognized system of providing supports to children aged 0-5 years of age. Current evidence suggests that EI is the most efficacious method for reducing and potentially eliminating the symptoms of developmental disabilities. It is also widely used with children at risk or with children who already have some developmental delay. Unfortunately, Bosnia and Herzegovina (BIH) does not have a well-developed system of EI. The goal of this paper is to describe the current trends in the field of EI in BIH and to describe one model of EI provision that is implemented in Zenica-Doboj Canton. There is a strong interest in creating the efficient system of early intervention in BIH. The different ideas about EI are coming from different stakeholders in the field, from Nongovernmental Organizations, UNICEF, local ministries of health, social welfare and education to the educational institutions providing services and supports to children with disabilities and their families. BIH needs to expand the system of EI and to improve the educational and rehabilitation opportunities for children with developmental disabilities. Centers, as the one described in this paper, need to be established across BIH.

Keywords:

Early intervention, Bosnia and Herzegovina, children with disabilities

Introduction

Early intervention (EI) can be defined as a set of planned measures aimed at optimizing child's early development. EI is used with children aged 0-3 years, although some authors propose that EI services should include children up to 5 years of age (Grantham-McGergor et al., 2007). Sometimes other terms, such as early childhood special education and preschool special education are used for the services provided to children aged 3-5 years (Bruder, 2010). EI services are delivered through a transdisciplinary team work that is used to maximize the child's development. Transdisciplinary in this context means experts from multiple disciplines such as early childhood special education, physical therapy, occupational therapy speech therapy etc. are all included in providing treatments for the child (Adridge, Kilgo, Bruton, 2015).

EI is primarily focused on children with developmental disabilities and/or developmental delays and on children at risk of developmental disabilities. The EI services are very important, given the fact that the number of children at risk of developmental disabilities is increasing due to many factors such as poverty, prematurity, low-birth weight etc. (Guralnick, 1998). There is plenty of evidence about the efficacy of EI on improving all developmental domains in children with disabilities. For example, Dawson, et al. (2010) have found substantial benefits of EI for children with autism in the area of cognitive development and adaptive behavior. Besides intellectual and adaptive behavior benefits, EI has positive effects on language, behavior and socio-emotional development (Roberts & Kaiser, 2015; Landsem et al., 2015).

The rationale behind EI is strongly rooted in neuroscience and the new evidence demonstrates

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that EI can affect brain activity (Iuculano et al., 2010; Koch & Moore, 2015). Here the general principle is that the earlier the child starts with EI the better are the outcomes for the child. There is a plethora of EI models that have proved to be efficacious with young children with disabilities. Most researched models and with strongest scientific validation have been behavioral interventions, especially with children with autistic spectrum disorder (Kasari, 2015). Depending on the location of EI provision they are generally center-based, home-based and recently community-based programs (Smith et al., 2010). Although previously regarded as less efficacious than center-based programs (Halpers, 1984), home-based programs, if conducted properly, can be very useful as well (Aytekin & Bayhan, 2016). Given its benefits, it is not surprising that the EI is a high priority in many countries around the world (Guralnick, 2016) including Bosnia and Herzegovina (BIH). Unfortunately, to date BIH does not have a well-developed system of EI. For example, BIH's neighbor EU country, Croatia, has much better system of EI. Croatia has very positive legislature regarding the provision of EI services and has established many Centers for EI. BIH should strive to align its legislation with Croatia and other European Union countries in regard to EI and also to start establishing Centers for EI throughout the country.

But prior to describing the EI in BIH, let us first give a brief overview of the political structure in BIH as it is related to the provision of EI services and to the establishment of EI system.

BIH context

BIH is a small country with the population of 3.600.000 people. According to the Dayton peace agreement from 1995, BIH is composed of two entities and one district: 1. Federation of Bosnia and Herzegovina (FBiH) and 2. Republic of Srpska (RS) and Brcko district. Each of these entities is pretty independent in creating legislature regarding education, health and social welfare among many others. Furthermore, FBiH is divided into 10 Cantons and each of these cantons has their own government and legislature. To illustrate this more clearly, we will take the sector of education as an example. There are 13 Ministries of Education in Bosnia and Herzegovina on different levels (FBiH, RS, Brcko District and 10 Cantons) and no ministry of education on the state level. There are 13 laws on education in Bosnia and Herzegovina, and although similar in structure they are not the same. It is important to point out that legislature regarding pre-

school education and inclusive education is very positive on all levels, enabling parents to choose which school or preschool institution their child will attend and declaratively stating that all children will have all the necessary professional supports. The positive legislature regarding this field is an obligation of the BIH, as the state has signed and ratified the UN Convention on the Rights of Persons with Disabilities (UNCRPD) from 2006. But unfortunately, the things on paper are not implemented in practice. Although nominally parents have the option to choose which preschool their child will attend, the child will not get the necessary supports such as speech therapy, occupational therapy, early special education etc. in most of the regular preschool institutions. As already mentioned, all these supports are supposed to be provided for every child according to the law. The number and quality of supports provided depends heavily upon the place of residence of the child. If we take school children for example, very few schools, and most of them in urban areas, have the capacity to provide supports for children with disabilities. In the vast majority of schools the resources are too scarce to provide such supports. Also, and this is the case in developed countries as well, children in urban areas have more therapeutic options than children in rural areas. Children with disabilities in rural areas are facing with what is called double disadvantage, disadvantage based on external environment and on disability status (Gething, 1997). To sum up, although there is positive legislature regarding supports to children with disabilities, very few children are actually getting these supports within their regular preschools and schools.

Now let us turn our attention to the EI services for children with disabilities in BIH. There are no data on the number of children with developmental disabilities in BIH. The recent census from 2013 represented a great opportunity to collect this kind of data but unfortunately the census did not contain questions regarding disability. The difficulty in collecting the data on the number of children who might need EI services is also present in other countries (Paik, Healey, 1999). In addition to this, there is no legislature on any level of government, in any sector (health, education, social welfare) that covers the field of EI and its provision. However, there are some policy documents adopted by FBiH and RS governments regarding EI. The government of FBiH adopted the policy for improvement of early child development in the period of 2013-2017 and the RS government adopted the similar document even earlier for the period 2011-2016. Although these policies were adopted, little has been

done in the field to improve the early childhood education and to install the EI system. It is obvious that EI has been a focus of many domestic and international initiatives but there is still no concrete legislature covering this area. Organizations such as UNICEF and local Ministries of Health, Social Welfare and Education have provided strong support to the creation of system of EI. These initiatives have resulted in opening of the Early Childhood Development Centers (ECDC) that provide EI services. To date, there are 7 such Centers throughout Bosnia and Herzegovina but they are not remotely enough to answer to the needs for EI. As the municipalities took responsibility for funding these ECDC for a limited time, the very sustainability of these ECDC is questionable. Besides these Early Childhood Developmental Centers there are numerous Non-governmental organizations (NGO) that provide EI services to children with developmental disabilities. Some of these NGOs are professionally run by experts in the field of child development, but majority of them are run by the parents. EI services provided by these NGOs are mainly dependent upon available funds obtained through projects financed by international organizations and local authorities (USAID, European Union, local authorities such as municipalities and Cantons). These funds, obtained mostly through projects, are not permanent and continuous and do not secure the stability and sustainability of these services. As is the case with ECDC, the EI services provided by NGOs are very useful and of extreme importance to children with developmental disabilities, but due to their limited number they cannot respond to the needs of children with disabilities. On the other hand, they should complement the services provided by the state-run, systematic, top-down approach in providing EI services. Systematic in this sense means run and coordinated through the proper Ministry, such as Ministry of Education, Ministry of Health and/or Ministry of Social Welfare, with secured financial stability and sustainability. As can be seen from above, the EI services and its provision vary depending on the part of the country but they are not sufficient, not even in urban areas. Thus, what is necessary is governmentally funded system of EI that is incorporated in the system, in the legislation and which will be fully sustainable. To date, there is only one such center in Bosnia and Herzegovina, the Center for Early Child Development and Early Intervention in Zenica-Doboj Canton. The goal of the present study was to describe the organization and structure of the Center which is supported by the Cantonal Ministry of Social Welfare. Further we

propose this model to be widely accepted throughout Bosnia and Herzegovina.

Center for Early child development and early intervention Zenica

The Center for Early child development and early intervention Zenica (further referred to as the Center), started in 2008 through a project initiated by the NGO Humanitas and 12 municipalities in Zenica-Doboj Canton. Zenica-Doboj Canton is one of 10 Cantons in FBiH. Population of Zenica-Doboj Canton is 390.000 people according to the latest census from 2013. Given the relative paucity of EI services for children with developmental disabilities and the great need for such services, the Center was the first one to provide treatments to children aged 3 years and younger in Zenica-Doboj Canton. In 2015, the Center was fully funded by the government of Zenica-Doboj Canton and became the first public institution for early intervention in Bosnia and Herzegovina. Currently the Center provides services to around 50 children weekly, who either have developmental disability or are at risk of having developmental disability. The services these children receive range from speech and language therapy to the physical therapy, described later in the article.

The main purpose of the Center was to become a “one-stop shop” for all the EI services. The goals of the EI offered at the Center are to maximize the developmental outcomes of children with developmental disabilities aged 6 years and younger through individually tailored educational and rehabilitation services and to provide necessary information for the parents. The Center follows main trends in EI research in regard to increasing parent-sensitive responsiveness and improving the child’s cognitive, social and emotional outcomes in inclusive preschool settings (Guralnick, 2016). More specifically, the following goals were set in relation to the children:

- 1.Improving the developmental outcomes of the child with developmental disabilities;
- 2.Learning the basic functional skills in the area of adaptive behavior, independence and self-care;
- 3.Preparing the child to better adapt in the kindergarten and subsequently in the school;

In relation to the parents, the goals are:

- 1.Psycho-social supports to parents;
- 2.Education of the parents for the co-therapists’ roles;
- 3.Empowerment of families through education and support groups.

As can be seen from the above, the Center aims to provide comprehensive family centered care which proved to be efficacious (Tomasello et al., 2010).

Procedures at the Center

After the project was initiated, the employees (professionals) of the Center went to advertize the EI services in the hospitals throughout the Canton, including the Cantonal Pediatric Clinic. This action had resulted in the agreement between a Center and medical institutions about the referral procedure. As soon as the child is suspected to have a developmental delay or has a developmental disability, he/she is referred to the Center, where a range of services is offered to the child and to the child's family. At the Center, a comprehensive assessment of child's developmental domains is made including fine motor skills, gross motor skills, cognitive functioning, adaptive functioning and language. Fine motor skills are assessed using the Lafayette Pegboard Test and Acadia subtests of fine motor coordination and integration. These tests are described in more detail in Memisevic and Hadzic (2013). Gross motor skills are assessed using the Gross Motor Function Measure (Russel et al., 2002). Cognitive development is assessed using the Developmental Test (Cuturic, 1988) and adaptive and language skills are assessed using the AAMD Adaptive Behavior Scale (Igric, Fulgosi-Masnjak, 1991). All these tests offer very valuable information in the context of individualizing work with children. Many existing programs served as a model for creating services at the Center, most notably the Head Start Program (Raver & Zigler, 1997), where important components of the program are social and emotional adjustment of the child. In line with Head Start program, The Center has a strong focus on the parents and their education (Zigler & Styfco, 2000). The Center serves children aged 0-6 years and all the services offered at the Center are free of charge to the service users. Some of the services offered to the children at the Center are:

1. Special education and rehabilitation services

Some of the services that are offered within this therapeutic modality are: 1. fine motor exercises; 2. Audio and visual perception exercises; 3. Visual-motor integration exercises; and 4. Attention exercises. Fine motor exercises including playing with dough, clay, putting buttons on strings etc. Audio perception exercises include making and imitating different sounds, recognizing different sounds etc. Visual perception exercises include tasks based on visual search paradigm, such as searching for lions

in the Zoo etc. Visual motor integration is improved through copying different shapes and playing with pegs. Lastly attention exercises include trainings of different aspects of attention such as sustained and selective attention through various computer games Pressing the button (space) whenever the wolf appears on the screen. These games and activities are very interesting for the children and they enjoy participating in them. All this exercises have a strong theoretical background as being very useful for the child's overall development (Memisevic, Hadzic, 2013).

2. Speech therapy

Within this modality, special attention is given to the oral-motor exercises and to the development of phonological awareness. These exercises include blowing bubbles, blowing small papers from the table, blowing through the straw in the glass of water etc. Phonological awareness is improved with the therapist through the games such as guess the first letter, guess the last letter, finding rhyming words etc.

3. Physiotherapy

Physiotherapy is mainly used with children with motor disabilities such as children with cerebral palsy.

The main principle is that early locomotor training will promote locomotors skills (Richards et al., 1997). The physiotherapy is mostly home-based, the therapist from the Center go the child's home and provide therapy. The schematic description of the procedures at the Center is presented in Table 1.

Staff at the Center

Staff at the Center is composed of transdisciplinary team of experts including one psychologist, three special education teachers (one of them with specialization in early intervention), two speech therapists, one occupational therapist and one physiotherapist. Although the expert team has some experience in EI provision, most of them have not received advanced trainings and education in the EI. This is also the case in even more developed countries as well (Taafe Young, Marsland & Zigler, 1997). However, it is important to point out that professional development of the personnel is one of the priorities of the Center policies. Professional development of the staff is implemented according to the annual plan. Usually experts from BIH Universities or professionals with many years of practical experience provide these educations to the staff.

Table 1.*Description of the procedures at the Center*

Activity	Personnel responsible	Result
1. Initial interview with parents	Psychologist	Reason for referral, parental concerns
2. Assessment of the child	Psychologist, special education practitioner, speech therapist, occupational therapist	Detailed insight into the developmental status of every child in all developmental domains
3. Creation of individual educational-rehabilitation plan	----- -----	Individualized program (IP) for promoting child's development in all areas. In addition to this, a family support program is made
4. Early intervention services	----- -----	Implementation of IP. After each session, a professional working with a child makes a report about the session (success, failures)
5. Evaluation	----- -----	Every three months the evaluation is made about the child's progress and the decision about the continuation of the program is made
6. Final interview with the parents	Social worker and any other member of interdisciplinary team if necessary	Parents are informed about the child's progress and are given recommendations and suggestions about child's continuation of education (preschool institutions with or without supports/ individual treatments- speech therapy etc.

Feedback from parents

Current research has indicated slightly positive attitudes of parents of school and preschool children towards treatment options for their children with autism in Bosnia and Herzegovina. (Mujkanovic et al., 2016). Parents from the Center are very satisfied with the services offered and with the personnel at the Center. Parents need to sign a written consent form to participate in the EI program. The Center's expert team makes an Individual Program for the child in cooperation with the parents and the parents need to approve its implementation. They also receive all the progress reports about their child. At the end of the treatment, parents receive the final recommendation for their child. Parents are encouraged to come for advice or potential additional treatment at the Center. Also, regarding the parental satisfaction, there has been no systematically conducted study on the comparison between the parental satisfaction of the parents whose children attend the Center and those who do not. This is an area that should be investigated in the future.

Cooperation with other institutions

A wide network of cooperation with other institutions has been established so the whole system of early care works flawlessly. The Center has an excellent cooperation with municipal Centers for Social Welfare, health institutions and preschool institutions. Cooperation with health institutions includes referrals from health institutions (hospitals) to the Center of children with developmental disabilities or children at risk. Centers for Social Welfare also refer children at risk to the Center. Children referred through the Centers for Social Welfare are usually children from socially and economically disadvantaged families. Cooperation with preschool institutions is of particular interest. The children are followed through their adaptation period in the kindergartens. If certain problem is persistent or reappears, the children go back to the Center for additional support services. Also, if staff at the kindergartens notices that some children might benefit from the services at the Center, the parents of those children are advised to come to the Center for assessment.

At the end of this short description, as an illustration, we would like to concretely present the procedure at the Center for a child.

Case description

The child, aged 2.5 years, went for a regular medical check-up at the hospital. The pediatrician at the hospital noticed that there was a certain developmental delay in the area of speech and fine motor skills. Thus, she referred the child to the Center. Parents called the Center to schedule the appointment and got the appointment term (usually within the two days from the call). At the interview parents stated their main concerns and filled the developmental profile checklist for their child. They also provided all anamnestic data for the child. On the second and third term, the child is further assessed in all developmental domains. The assessment is made by a psychologist, speech therapist and special education teacher/ occupational therapist (earlier referred as a defectologist) in a structured way and through the observation of the child in the play activities. Parents answer to additional questions that the expert team might have. On the fourth term (within a week from the assessment), parents receive report on the assessment and suggestion for the Individual Program (IP). The parents sign the consent form for the implementation of the IP. The therapists then implement the IP, which consists of two weekly sessions for three months. One session is speech therapy session and the other is special education/occupational therapy session. Parents are also involved in the treatment of their child. Parents receive instructions on what and how to work with the child at home. After three months of treatments, the assessment is made again. The report is given to parents. As the child achieved all the set goals, the team decided the child does not need treatments anymore and parents are told to come to the Center if there were any problems at the kindergarten. Parents are given information about the stimulation exercises for the child. Generally, parents are very satisfied about the services offered at the Center. This is best illustrated with the statement of one parent: *My child's speech is much better now. He has better attention and his behavior also improved. I am very thankful to the staff at the Center.*

Conclusion

Establishment of early intervention system in Bosnia and Herzegovina is still at an early stage. The model presented in this paper can serve as a model for successful early intervention. It is focused on the child, his/her current level of functioning, de-

velopmental strengths, support to the family, which is the fundamental principle of the social model of disability. The parents of children need to have a one place where they can get all necessary information about the available treatments for their children. This will, in turn, significantly reduce the stress that parents are experiencing (Kaarsen et al., 2006). Although small in its scope, we believe the Center for Early Child Development and Early Intervention in Zenica can serve as a great example for providing EI in Bosnia and Herzegovina. This model of EI provision should be expanded throughout Bosnia and Herzegovina. In addition to this, although the financial benefits were not described or elaborated in this paper, there are numerous economic benefits of the EI services, which are best illustrated in the article by Heckman (2006) about the economic advantages of EI.

The authorities in BIH on all levels, especially on cantonal level, need to realize the real importance of early intervention and to start investing more money into this field. In the long run, it is not an expenditure, but investment in the future.

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