

Available online at: <https://specjournal.aspu.am/index.php/se>

MACEDONIAN EARLY CHILDHOOD INTERVENTION: CHALLENGES AND OPPORTUNITIES

DOI: 10.24234/se.v9i2.64

AUTHORS' DATA

Daniela Dimitrova-Radojichikj, PhD, Professor Institute for Special Education and Rehabilitation, Faculty of Philosophy

St. Cyril and Methodius University, Skopje, N. Macedonia

Contacts: daniela@fzf.ukim.edu.mk

Valentina Dukovska, PhD, Early Intervention Specialist

University Clinic for Pediatric Diseases, Skopje, N. Macedonia

Contacts: drvalentinadukovska@yahoo.com

ABSTRACT

Early childhood intervention is vital in supporting the development of children with disabilities or those at risk of developmental delays. Despite its well-known benefits, Macedonian Early Childhood Intervention services still encounter significant challenges. This study included 33 ECI professionals nationwide, who participated in six focus group discussions. The focus groups addressed the daily obstacles these professionals encounter - from screening procedures to parental involvement in Early childhood intervention services. Participants highlighted the lack of standardized Early childhood intervention protocols, the need for ongoing training, and greater financial support from the state.

Keywords: *Early childhood intervention (ECI), Children with disabilities, ECI services, ECI staff, ECI training*

INTRODUCTION

Early childhood intervention (ECI) is aimed at children with developmental disabilities or risk of developmental delay during their most critical years, from birth to age six, when their brains are rapidly developing. Specifically, ECI is a form of intervention that involves comprehensive care provided to children and their families in the first years of life (Perera, 2011). In the past, ECI services focused

exclusively on habilitation or rehabilitation of the child's disability with little family involvement (Romero-Galisteo et al., 2020; Bricker, Xie & Bohjanen, 2018). In the 1970s, more and more professionals emphasized the vital role of the family in the development of children with disabilities or at risk of developmental delay (Leal, 1999). Namely, ECI helps children develop the independence necessary for future success, often reducing their dependence on special education services later in life. According to Tollan et al. (2023), intensive and individualized ECI programs significantly improve the development of children with significant needs. In addition, Caron et al. (2024) suggest that ECI improves key adaptive skills, including communication, daily living, and socialization, which are essential for fostering independence in children with disabilities. The need for early identification and intervention is further emphasized by Joshua, Soko, and Mapfumo (2024), who emphasize their importance in improving developmental outcomes in children with autism spectrum disorders or attention deficit disorders. Generally, ECI plays a key role in fostering cognitive, communication, motor, and social skills in children at risk of developmental delays or disabilities. In particular, it has positive effects on children with behavioral challenges, enabling them to develop healthier and more effective communication and interaction skills, key components for building positive relationships (Carrington et al., 2016). Today, personalized ECI strategies are available to promote the social and cognitive growth of children with disabilities. For example, McCollough and Hoffman (2019) propose practical tools designed to help children acquire basic social skills, which are crucial for their academic achievement.

Another benefit of ECI is its economic cost-effectiveness, meaning that it reduces the long-term costs of later intervention, such as special education, healthcare, and social services. For example, for children with severe autism spectrum disorders, engaging them in intensive behavioral intervention (IBI) before the age of four promotes their development, makes them more independent, and certainly has economic benefits (Piccininni, Bisnaire & Penner, 2017). Similarly, implementing literacy programs in preschool settings has financial benefits because it provides an academic foundation for better school performance for children, which also means that fewer resources will need to be spent on support programs (Fillman, 2020). These findings highlight that investing in ECI programs benefits both individuals and society.

Although the benefits of ECI are well known, it faces significant barriers in less developed countries. There are several reasons for these barriers. For example, research on the Early Start Denver Model (ESDM) in Senegal highlights the complexity of implementing evidence-based interventions in resource-limited settings, with poverty and inadequate infrastructure limiting the availability of services for children with autism (Der Dieye, Reis & Delven, 2024). Many studies have shown that training of ECI professionals is necessary to provide effective ECI services, especially the need for them to obtain additional certifications, diplomas, or continuing education (Pretis, 2006). Also, Stahmer et al. (2024) point out that the potential for child development is significantly reduced if ECI personnel are not adequately trained.

In our country, few ECI services face numerous challenges, such as limited access to services and insufficiently certified staff. In particular, there is no unified strategy or formal network to support children with developmental delays or disabilities and their families. As a result, many families do not have access to ECI services, especially in small towns and rural areas. This research aimed to identify the challenges faced by families and professionals in early childhood care. In other words, this research aimed to assess how ECI services are implemented in our country.

METHODOLOGY

Participants

The survey included 33 participants, a total of 75% of professionals invited to participate in the focus groups. Participants were from six cities in different parts of our country, in order to ensure different perspectives in the focus groups. The sample consisted of professionals working in public and private ECI services, as can be seen in Table 1.

Table 1.

Participants in the Focus groups

Sector	Service Personal	Number of Participants
Government ECI Service (N=9)	ECI Service Directors	1
	Special Educators and rehabilitators	13
	Speech Therapists	1
Private ECI Service (N=9)	ECI Service Directors	4
	Special Educators and rehabilitators	10
	Speech Therapists	3
	Psychologists	1
Total		33

Instrument

The research was conducted according to the Methodological Guide: Research on National Situational Analyses of Early Childhood Intervention (Vargas-Baron et al., 2022). Specifically, the section of this guide on the analysis of ECI services through a focus group analyzes eight critical aspects of the ECI system. These areas mainly relate to the availability and current status of ECI services. The overall quality

of the services provided and the effectiveness of the staff training process, including pre- and in-service training, were also discussed. In addition, challenges related to staff retention and career progression were discussed, as well as the existing systems for monitoring and evaluating the ECI programs.

Procedure

Six focus groups were organized, each with 5-6 participants. ECI directors were first asked via email to select 2-3 staff members from their programs who worked directly with families and young children. To minimize travel costs, most focus groups were conducted virtually via Zoom. That is, four focus groups were held online, and two were hybrid (combined in-person and virtual participation). Participants were first invited via email, which outlined the purpose and structure of the focus group discussions. A follow-up email was sent requesting written consent to confirm their voluntary participation. Also, with the participants' consent, all sessions were audio-recorded to ensure data integrity. Participants were assured that the recordings would be securely stored, accessible only to the research team, and permanently deleted after the analysis was completed. Each session lasted approximately 1 hour and 20 minutes and was led by two moderators. The recordings were fully transcribed to ensure the accuracy of all information shared.

RESULTS AND DISCUSSION

The first topic discussed in the focus groups was the key services that a high-quality ECI program should provide to support the development of children and their families. According to the participants, this would primarily be the early detection of developmental delays or disorders in children. One participant noted that *"Children are rarely diagnosed early and do not have a complete report and opinion."* Another important prerequisite for a quality ECI service is the creation of Individual Family Service Plans (IFSPs). Participants emphasized that these plans must be family-centered, designed in collaboration with parents, and tailored to the developmental needs of each child. As one participant noted: *"We achieve the best results when we focus on strengthening the competencies of parents."* According to them, parental participation is crucial for the success of an ECI program. They believe that parents need information, training, and financial support from the state. As one participant said, *"Parents need to be better informed about possible ECI programs because most do not know where to turn for support."* In addition, home visits and early childhood support were mentioned as key strategies for quality ECI. Participants also highlighted the need for systemic reforms, including the development of national policies and multi-sectoral programmes to create a consistent, comprehensive framework for ECI services. One participant concluded: *"We need a national strategy that connects all sectors – only then can we truly provide effective early intervention."*

The second topic discussed in the focus groups was the challenges families face in accessing ECI services. Particular emphasis was placed on whether families with lower incomes and ethnic backgrounds have the same access to ECI services. Most participants noted that most families have financial problems

accessing ECI services. In addition, they face negative attitudes by society (e.g., *“Parents have financial problems, they additionally face prejudice, or they also do not want to accept that their child has special needs”*). Some of the private ECI programs have discounts for low-income families (e.g., parents pay 13% or 25% of the total price). These centers provide additional funds mainly from donations and project activities. They also have organized transportation for children. There was a consensus among participants that low-income families face various obstacles in accessing ECI services. However, some of them stated that *“More and more Roma parents are now bringing their children to ECI services”*. To overcome these shortcomings, several participants stated that the decentralization of the ECI system is necessary, with the opening of centers in all major cities. Equally important is the education of family doctors on the importance of ECI. It was generally emphasized that the ECI is more concerned with the family and working with it, but at the same time, there is still no law in our country that would enable the provision of ECI services at home. Therefore, institutions strive to train parents when they bring their child for treatment. It was emphasized that *“working with parents is necessary for overcoming, resolving, and accepting the child’s diagnosis.”*

The third set of questions in the study focused on the implementation of children's development assessments in ECI centers. Almost all participants in this group responded that they do developmental screening (e.g., *“In our center, developmental screening is performed by a pediatrician, and in addition, a special educational assessment is performed.”*). All participants wanted to learn new tools for developmental screening for infants and young children. All public and private institutions have procedures for conducting developmental screening and developmental assessments. Some participants stated that they use a compilation of several developmental screening tests (e.g., *“We have developmental screening tests from Germany, Italy, and Serbia, and we do some combination of them”*). They further stated that there is a shortage of physicians in public ECI services. All agreed that they would like to participate in special training on developmental screening of infants and young children. They also emphasized that this training must be for all members of the ECI team.

In the fourth set, the focus group discussed what policies and procedures, as well as service and staff standards, help guide ECI services. Participants believe that the best effect of providing quality ECI services is writing an individual plan for children (e.g., *“Because one type of treatment does not work for every child.”*). Some participants reported creating both short-term (2-3 weeks) and long-term (4-6 months) plans for working with children. Others have weekly and monthly work plans. All emphasized that decisions are made as a team. Participants also stated that education of staff on working with parents, communication skills, how to convey the diagnosis and training of parents to improve the child’s functional level is needed. In this regard, it was emphasized that staff training is needed to support parents and that programs focused on parental resilience are needed. It was said that a system for ECI is needed. The problem is that there is

no coordination of the system between health institutions (e.g., *“If we know what has been done and what needs to be done, it will be easier...”*). The next question was how they encourage and show parents how to implement developmentally appropriate activities during their daily activities with their child. ECI experts said that they have intensive communication with parents (e.g., *“Every day we tell them what we did that day and give them instructions on how to work with the child at home.”*). One participant noted that parents can attend the child’s treatment and gain practical experience in working with the child at home. However, working with parents depends on their interest in the child’s development. Some of them mentioned sending videos to help parents work with their children at home. Participants stated that when they organized workshops for parents, very often they did not register (because the training is not free). They also emphasized that financial resources need to be found to make the training for parents free.

The fifth topic for focus group discussion was related to pre- and in-service training, employee retention, careers, and salary scale. They were first asked whether pre- and in-service training on modern ECI methods should be improved. Regarding pre-service training, the primary response was that they had acquired fundamental knowledge about ECI and that they needed more in-depth knowledge (e.g., *“...what we lacked at the beginning was the Strategy for working with parents.”*). Participants stated that they had much practice and that they had good courses at the Faculty. One of them said that the Faculty puts more emphasis on education than on early intervention. Most of them agreed that it is necessary to have specialist studies in ECI at the Faculty. ECI professionals commented that they often attend seminars and training. However, all of this is introductory (i.e., Introduction to Primitive Reflexes, Introduction to Art Therapy, Introduction to Music Therapy, etc.). They need complete licensed training, which is too expensive for them. Some of them stated that they submit their career development plans to the institution where they work, but it rarely allocates funds for this. Staff also emphasized that on-the-job training should be more frequent, whether online, through visits and exchanges between centers, or in-center training. This ongoing training is essential for contemporary trends in ECI. Professional development and certification are essential for maintaining the quality of ECI services. In contrast, insufficient training poses a significant challenge to the effectiveness of ECI programs (McManus et al., 2020). The next topic of discussion is whether ECI programs retain their professional staff and have mandatory certification requirements, career ladders, and pay scales. Participants stated that they do not have an ECI-certified program, nor do they have a career ladder and salary scale. One of them noted that only two state institutions are listed as ECI centers in the ICF, but that there are no private centers. It was emphasized that they are not subject to any of these conditions. There are no operating licenses, and therefore no criteria for work and promotion. They stated that ECI programs cannot retain their professional ECI staff (e.g., *“.. no arrangements have helped us to retain them!”*). Participants spoke about motivation, the need for continuous training, and rewarding their staff. Other aspects mentioned are the creation of national registration criteria for ECI service providers.

The focus groups were also asked about two key aspects of ECI services: supervision and evaluation. According to Krauss and Seltzer (1993), structured supervision of ECI services was necessary to support professionals and maintain service quality effectively. Similarly, Dunst and Trivette (2009) emphasized the importance of systematic monitoring, focusing on tracking child development and parental satisfaction as key indicators for improving the outcomes of ECI programs. Participants from the public sector pointed out that the Ministry of Health supervises their work formally. Participants from private centers stated that none of the private centers have professional supervision (*"Nobody asks us what we do!"*). They stated that they have no official supervision over their work. One of them stated that they tried to certify their ECI program, but did not receive feedback from the Certification Institute. They proposed the establishment of a national body for licensing ECI services. According to them, it is necessary to pass the Law on Special Education and the Law on Speech Therapists and establish a Chamber. They also point out that, currently, anyone can organize training. It is necessary to know who can organize these trainings and who can certify. Additionally, there was a discussion about how they evaluate the efficiency and results of their ECI services. All participants stated that there should be a body that would carry out supervision, licensing, and criteria for professional development. An example was given of a private center that keeps a file for each child, preparing an assessment report after a specific period. Another mentioned that the whole team meets once a month to see the achievements of all children (*"... the child's developmental success."*). It is said that many dilemmas arise during work, and internal meetings are organized to gather a second opinion, but this is an informal process. Most participants reported that the ECI services managers monitor their work. One of the managers mentioned that they find it challenging due to their heavy workload. They would like to have a formal protocol for monitoring program services and assessing the effectiveness and results of ECI services.

The seventh or penultimate topic discussed with participants was networking, coordination, and referral within ECI services. Namely, they were first asked whether a coalition or network of ECI programs had been established to provide technical support to ECI programs. Participants indicated that there is no coordination between institutions. Horizontal and vertical inter-sectoral connectivity is needed. Namely, there is a lack of networking of all institutions working in the field of ECI. If the problem is solved systematically, there will be greater results. All stated that they had some cooperation with other ECI services. ECI experts indicate that there is no coalition or network between ECI programs. They all have some network with other ECI services on a private basis (*"Networking is only on a personal, friendly basis"*). Also, participants stated that they mainly cooperate with pediatricians. At the same time, some government ECI services stated that they would like to have an official list of licensed private ECI services (i.e., *to know where to send parents*). They suggested establishing a Resource Center and cooperating with everyone.

At the end of the focus group discussion, participants were asked to list five recommendations for improving and expanding ECI services in our country. In summary, these five priorities were listed in all six focus groups: National strategic plan and Legislation for ECI; National guidelines and procedures for ECI; Certified ECI training; National monitoring and evaluation of ECI services; and Multi-sectoral networking and cooperation.

CONCLUSION

In our country, it is necessary to enact legal provisions to support ECI services for children with disabilities. Specifically, eligibility criteria, entry points into services, family participation, service coordination, performance indicators, workforce training, applicable rights of children with disabilities and their families, as well as legal provisions for financing, should be legally defined. It is also necessary to establish a multi-sectoral system for the coordination and monitoring of ECI services.

ACKNOWLEDGMENTS

Thanks to the focus group participants for their responses and recommendations, which significantly contributed to the findings of this study.

CONFLICT OF INTEREST

This research is part of the project "Situation Analysis on Early Childhood Intervention in North Macedonia", financed by UNICEF. The funding organization did not influence the design, data collection, analysis, interpretation of results, or the writing of this manuscript. The authors declare no other conflicts of interest related to this study.

REFERENCES

1. Bricker, D., Xie, H., & Bohjanen, S. (2018). A history of EI/ECSE in the United States: A personal perspective. *Journal of Early Intervention*, 40(2), 121–137.
2. Caron, V., Badaracco, S., Petitpierre, G., & Yousefi, S. (2024). Assessment of the adaptive behavior of young children with visual impairments in an early intervention service: A pilot study. *Children (Basel)*, 11(10), 1263. <https://doi.org/10.3390/children11101263>
3. Carrington, S. B., Berthelsen, D., Nickerson, J., Nicholson, J. M., Walker, S., & Meldrum, K. (2016). Teachers' experiences of inclusion of children with developmental disabilities across the early years of school. *Journal of Psychologists and Counsellors in Schools*, 26(2), 139–154. <https://doi.org/10.1017/jgc.2016.19>

4. Der Dieye, N. A., Reis, J., & Delvenne, V. (2024). Implementing the Early Start Denver Model in Senegal: Outcomes and insights from a low-resource context. *Psychiatria Danubina*, 36(Suppl 2), 411–416. <https://doi.org/10.24869/psyd.2024.411>
5. Dunst, C. J., & Trivette, C. M. (2009). Capacity-building family systems intervention practices. *Journal of Family Social Work*, 12(2), 119–143. <https://doi.org/10.1080/10522150802713322>
6. Fillman, B. A. (2020). A cost-effectiveness analysis of early literacy growth in public pre-kindergarten programs (Doctoral dissertation, Virginia Commonwealth University). <https://doi.org/10.25772/7V0H-MN52>
7. Joshua, S. S., Soko, M., & Mapfumo, W. (2024). The crucial need for child assessments and interventions training in Zimbabwe. *International Journal of Research and Innovation in Social Science*, 8(6), 2836–2845. <https://doi.org/10.47772/IJRISS.2024.806216>
8. Krauss, M. W., & Seltzer, M. M. (1993). Child-related and parenting stress: Similarities and differences between mothers and fathers of children with disabilities. *American Journal on Mental Retardation*, 97(4), 393–404. <https://pubmed.ncbi.nlm.nih.gov/8427694/>
9. Leal, L. (1999). A family-centered approach to people with mental retardation. *American Association on Mental Retardation*.
10. McCollow, M. M., & Hoffman, H. H. (2019). Supporting social development in young children with disabilities: Building a practitioner's toolkit. *Early Childhood Education Journal*, 47(3), 309–320. <https://doi.org/10.1007/s10643-019-00930-y>
11. McManus, B. M., Richardson, Z., Schenkman, M., Murphy, N. J., Everhart, R. M., Hambidge, S., & Morrato, E. (2020). Child characteristics and early intervention referral and receipt of services: A retrospective cohort study. *BMC Pediatrics*, 20(1), 84. <https://doi.org/10.1186/s12887-020-1965-x>
12. Perera, J. (2011). Atención temprana: Definición, objetivos, modelos de intervención y retos planteados [Early intervention: Definition, objectives, intervention models and challenges]. *Revista Síndrome de Down*, 1(28), 140–152. <http://familias.mobile.centrodocumentaciondown.com/uploads/documentos/ebe03bcda5b04a9a500ae9511c6d3f5fe74209.pdf>
13. Piccininni, C., Bisnaire, L., & Penner, M. (2017). Cost-effectiveness of wait time reduction for intensive behavioral intervention services in Ontario, Canada. *JAMA Pediatrics*, 171(1), 23–30. <https://doi.org/10.1001/jamapediatrics.2016.2695>
14. Pretis, M. (2006). Professional training in early intervention: A European perspective. *Journal of Policy and Practice in Intellectual Disabilities*, 3(1), 26–32. <https://doi.org/10.1111/j.1741-1130.2006.00051.x>

15. Romero-Galisteo, R. P., Gálvez Ruiz, P., Blanco Villaseñor, A., Rodríguez-Bailón, M., & González-Sánchez, M. (2020). What families really think about the quality of early intervention centers: A perspective from mixed methods. *PeerJ*, 8, e10193. <https://doi.org/10.7717/peerj.10193>
16. Stahmer, A. C., Dufek, S., Rogers, S. J., & Iosif, A. M. (2024). Study protocol for a cluster, randomized, controlled community effectiveness trial of the Early Start Denver Model (ESDM) compared to community early behavioral intervention (EBI) in community programs serving young autistic children: Partnering for Autism: Learning more to improve services (PALMS). *BMC Psychology*, 12(1), 513. <https://doi.org/10.1186/s40359-024-02020-0>
17. Tollan, K., Jezrawi, R., Underwood, K., & Janus, M. (2023). A review on early intervention systems. *Current Developmental Disorders Reports*, 10(2), 147–153. <https://doi.org/10.1007/s40474-023-00274-8>
18. Vargas-Barón, E., Diehl, K., & Kakabadze, N. (2022). Methodological guide: Research for national situation analyses on early childhood intervention. United Nations Children's Fund (UNICEF). <https://www.unicef.org/eca/reports/research-national-situation-analyses-early-childhood-intervention>

The article submitted and sent to review: 29.11.2024

Accepted for publication: 11.08.2025



This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 International License.