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Early childhood intervention in Portugal: An overview based on the Developmental Systems
Model

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Abstract

Research studies on Early Childhood Intervention (ECI) in Portugal are diffuse regarding both program components and the geographical area under scrutiny. Since the 1990s, a growing body of knowledge and evidence in ECI is being gathered, based on post-graduate teaching, in-service training, and research. This article draws on the systems theory perspective outlined in the Developmental Systems Approach to Early Intervention (Guralnick, 2001, 2005a, 2011) in order to: (a) depict paradigmatic shifts and scientific evidence, as well as social and political factors, setting the ground for the development of ECI policies and services in Portugal; (b) describe the current Portuguese legislation that recently established a statewide ECI system, and deductively analyze its content regarding the *structural components* of Guralnick's Model; (c) examine the current status of ECI services according to the core principles and components of the Developmental Systems Model. Inspired in Guralnick's suggestion (2000) the discussion addresses existent problems at different levels of the system, proposing an agenda for change in ECI in Portugal, underlining the need for the co-construction of a new culture based on scientific evidence and on in-depth dialogues between researchers, practitioners, and communities.

Key words: Portuguese early intervention system; historical and political framework; systems perspective

Early intervention in Portugal: An overview based on the Developmental Systems Model

This manuscript provides an overview of the early childhood intervention (ECI) system in Portugal, considering the Developmental Systems Model proposed by Guralnick (2001, 2005a). Based on this theoretical framework we will analyze the current state of the art by describing the ECI legal provisions, existing guidelines, and current practices, while also providing information on the evolution of ECI up to the recent creation of the National Early Childhood Intervention System (NECIS). Research findings on specific features of the components of the Developmental Systems Model will be included when available. Finally, challenges and suggestions for the future will be discussed, namely the relevance of professional training and development in order to facilitate the implementation of recommended practices and the need for a closer dialogue between theory and practice.

It is important to notice that although the Portuguese law creating the NECIS was published in October 2009, only in September 2011 the system was partially in place. Therefore, systematic evaluation on the NECIS is currently not available. Furthermore, even though Portugal is a small country, the current Portuguese ECI system is characterized by considerable regional asymmetries.

Overview of Portuguese demographics

Portugal is located at the southwestern edge of the European Continent in the Iberian Peninsula. It became a sovereign country in 1143, and its present territory occupies an area of 36,390 square miles. Portugal is a parliamentary democracy and a full-member of the European Union. According to the 2011 census (Instituto Nacional de Estatística, 2012), the Portuguese total population is around 10,561,614 people. Recent reports document that Portugal has a high human development index (United Nations Development Program, 2011). Maternal child health care services improved steadily in the past few decades: infant mortality rate decreased from 24.3 per 1,000 in 1980 to 2.5 per 1,000 in 2010 (PORDATA, 2011). However, maternal educational level

is reported as one of the lowest in the European Union, with 70% of Portuguese mothers having less than 10 years of formal education (Organization for Economic Co-Operation and Development, 2008). Furthermore, Portugal has an illiteracy level of 9% and a risk of poverty around 17.9% for the population in general and 20.6% for families with children (Instituto Nacional de Estatística, 2010).

According to the Census 2001 (the most recent data available for the population aged 0 to 5), the proportion for children in this age group was equivalent to 1.3% of the mainland Portuguese population. Felgueiras and colleagues (2006) report the estimated incident rate of disability for this age group as being between 1.09% according to the Census 2001 and 1.5% according to the 1995 National Inquiry on Impairments, Disabilities, and Handicaps (Secretariado Nacional para a Reabilitação e Integração das Pessoas com Deficiência, 1996).

History of early childhood and early childhood intervention services in Portugal

The evolution of ECI is unquestionably connected with the development of health, education, and social security policies (Bairrão, 2001). In order to provide a better understanding of the development of ECI in Portugal, we will present a brief overview of the policies and practices related to early education and care, ECI, and special education provisions for children.

Regarding early childhood education and care (ECEC), in the last two decades, the coverage rate for children under 6 years of age has increased drastically: 30.2% of children between 4 months and 3 years (Gabinete de Estratégia e Planeamento, 2009) and 78.8% of children between 3 and 6 years (Ministério da Educação, 2010) attended nonparental care in 2008. Public and private preschool services for children between 3 and 6 years depend on the Ministry of Education; however, ECEC services for infants and toddlers (private for-profit and private non-profit organizations) are still dependent on the Ministry of Solidarity and Social Security (Bairrão, Barbosa, Borges, Cruz, & Macedo-Pinto, 1989; Ministério da Educação, 2000; Pessanha, Aguiar, & Bairrão, 2007).

Regarding special education, there has been a progressive increase of inclusive policies and practices since the 1990s, after the recognition of the Salamanca Statement and Framework for Action on Special Needs Education (United Nations Educational, Scientific and Cultural Organization, 1994). Until then, children with disabilities aged 0 to 6 with special needs were mainly supported by health and social security services, with limited intervention from the Ministry of Education. By the time, as the dominant conceptual framework followed a medical paradigm centered in specialized support structures, the few services available focused on deficits and were designed to define diagnosis. Service provision was segregated and fragmented, aiming to avoid deficit aggravation and ensure its reduction or even removal. Practices were mainly child-centered, delivered by different specialists, with families receiving almost exclusively financial and mental health supports (Bairrão, 2001, 2003; European Agency for Development in Special Needs Education, 2005). This unsatisfactory service provision created a very stressful situation for families of children with special needs, highlighting the need to develop a coherent and integrated system provision of special services and supports by well-trained professionals (Almeida, 2008; Bairrão & Almeida, 2003; Boavida & Borges, 1994; Felgueiras, 1997, 2000).

In Portugal the first ECI programs were developed at the beginning of the 1980s. During this decade concerns with early detection of biological, psychological, and sociocultural determinants of developmental problems triggered international collaboration with specialists from the United Kingdom and the United States of America (Bairrão & Felgueiras, 1978), encouraging the development of innovative projects. We will briefly describe two specific projects that were particularly influential for Portuguese ECI. The first, the home visiting project Portage Program for Parents, developed in the district of Lisbon in the early 1980s by the Direcção de Serviços de Orientação e Intervenção Psicológica, introduced innovative features in ECI services namely, individualized planning of objectives and intervention strategies, a model of service coordination and a system of in-service home visitors' training and supervision that created

opportunities for interdisciplinary collaboration (Felgueiras & Breia, 2005). By introducing parental involvement in the intervention process as an essential feature for success, this project made a relevant contribution to a paradigmatic shift in ECI services for children and their families (Almeida, 2000; Bairrão, 2003). The second, the collaborative and community-based ECI Project – Projecto Integrado de Intervenção Precoce de Coimbra (PIIP), was promoted from 1989 onwards in the district of Coimbra. This project provided individualized comprehensive and family-centered supports involving health, education, social security, and community services. The high-quality in-service professional training, at a national and international level as well as the continuous and collaborative supervision provided to teams were important variables associated with the program's effectiveness (Boavida & Borges, 1994; Boavida, Carvalho & Espes-Sherwindt, 2009). This coordinated, inter-services, and transdisciplinary program constituted the starting point in the development of ECI in Portugal (Serrano & Boavida, 2011) through a "bottom-up" process which led to a progressive awareness of Portuguese policy makers regarding ECI, thus influencing the outline of the legal provision (European Agency for the Development of Special Needs Education, 2005).

Evidence shows that parents participating in the Portage project and in the PIIP, respectively: (a) valued their active participation and reported an increased sense of parental competence (Almeida, Felgueiras, & Pimentel, 1997; Almeida, Felgueiras, Pimentel, & Morgado, 1991); (b) were satisfied with features of the parent-professional relationship (Boavida et al., 2009; Cruz, Fontes, & Carvalho, 2003).

Over the 1990s, an increase in the number of ECI projects was associated with professionals' enhanced awareness about the need to change the service delivery model for young children with disabilities, as well as with the availability of national and European funding. However, services were extremely variable from program to program, and even within the same program. Results of the few research studies conducted during these years document such

variability in diverse aspects, such as: delivery model, target population, goals, outcome measures, level of parental involvement, type, intensity or duration of interventions (Boavida et al., 2009; European Agency for Development in Special Needs Education, 2005; Veiga, 1995). A survey conducted in the district of Lisbon in 2000, reported the prevalence of mono and multidisciplinary interventions, a child-focused approach, and significant differences between professionals' and families' perceptions regarding effective practices (Pimentel, 2005).

A major national survey by the Ministry of Education conducted a few months before the publication of the first ECI legal provision in Portugal (Despacho Conjunto n.º 891/99 [DC 891/99]), depicted the state of the art on service delivery to children from 0 to 6 with special education needs, in a sample of 1121 teachers from special education teams around the country (Bairrão & Almeida, 2002, 2003). Results indicated that the majority of children receiving ECI were over 3 years of age (83%) and only 25% of children started the intervention before the age of 3. Assessment was predominantly monodisciplinary and informal and intervention was mainly child-centered. Relevant limitations were identified namely, the absence of a common theoretical framework in teachers' training in ECI, scarcity of professional supervision, and lack of program evaluation. However, 25% of the special education teachers working in community-based projects, reported innovative practices, namely inter/transdisciplinary team work, interventions in natural settings, family involvement, and Individualized Family Service Plan (IFSP) implementation.

Within this historical and conceptual context, a diversity of characteristics from different models coexisted in intervention services. By the 1990's the influences of systemic-developmental perspectives (Bronfenbrenner & Morris, 1998; Sameroff & Fiese, 1990) and of the family-centered approach (Dunst, 2000) on service delivery was still emergent. As a result, individualization of plans for families was scarce, with professionals evidencing difficulty in

assuming a consultant role and in developing reciprocal actions with families (Pinto, Grande, Felgueiras, Almeida, Pimentel, & Novais, 2009).

As stated above, part of the evolution of ECI was triggered by the implementation of an early intervention community-based program in Coimbra (Boavida & Carvalho, 2003). Emerging from such ECI experience and recognizing the need to create an organizational and integrated model of shared inter-service responsibilities for ECI, a task force involving representatives from the Ministries of Education, Solidarity and Social Security, and Health was established in 1994. This group developed the ECI model that framed the first legislation exclusively dedicated to ECI – the DC 891/99 - a Joint Order establishing the “Guidelines regulating early intervention for children from 0 to 6 years with disabilities or at risk for severe developmental delay, and their families” (p. 15,566). This legal provision, unique in Europe, was a landmark in the development of nationwide ECI services, acknowledging an identity for ECI service provision in Portugal. Strongly influenced by the USA legislation, the DC 891/99 included innovative features, some of which can now be characterized as being connected to the Developmental Systems Model proposed by Guralnick (2001), namely: (1) interagency network of resources based on an intersectorial coordination of education, health, and social security services at the local, regional, and national level; (2) transdisciplinary team work and service coordinator; (3) family-centered approach in order to meet families’ diverse needs by identifying and using their internal resources and the ones existing in the community, thus reinforcing the power of families on the decision-making process; (4) ISFPs implemented according to a family-centered philosophy; (5) preventive role of ECI, by serving children at-risk; and (6) the importance of interventions based on natural opportunities occurring on family and community settings.

The issuing of the DC 891/99 triggered the development of numerous ECI projects. Results of a national study conducted by an interdepartmental group on the implementation of the DC 891/99 documented some relevant positive aspects (Felgueiras et al., 2006) namely, a substantial

increase in the number of children from 0 to 3 covered by services – 41% compared with the 25% reported by Bairrão and Almeida (2002). Such an increase was especially noteworthy in regions where both local ECI teams and interdepartmental coordination teams at a district and regional level were created. This was the case for the center region (Coimbra and Aveiro) as well as Alentejo, in the south of Portugal, where Franco and Apolónio (2008) report an increase of 300% in the number of children aged 0 to 6 covered by ECI services, between 2000 and 2007. Although the report by Felgueiras et al. (2006) was never made public, it documented cross-country asymmetries, namely in family involvement as well as on the level of participation of public agencies. The main barriers identified by this national evaluation were associated with difficulties in implementing integrated actions among health, education, and social security sectors, financial constraints, and limitations in professional training and supervision (Felgueiras et al., 2006).

Other studies conducted at a national level reported a discrepancy between professionals' ideas valuing the family-centered approach and their actual practices. Specifically, professional practices failed to comply with the participative component of the family-centered approach, as described by Dunst (2000), confining their interventions to its relational component (Almeida, 2008; Pereira, 2009). The aspects found to be more problematic were related to: (a) the use of the IFSP; (b) engaging and strengthening family social networks, namely the informal supports; (c) building networks based on existing community services and resources; and (d) developing intervention with environmentally at risk families (Almeida, 2008). In-service training in ECI and capability to articulate with other professionals were found to be relevant variables in family-centeredness (Pereira, 2009).

Current Legislation that governs Early Childhood Intervention and Early Childhood Special Education

In October 2009, the Portuguese Parliament approved a new legislation establishing the Portuguese National Early Childhood Intervention System (NECIS) – Decreto-Lei n.º 281/99

[Decree-law - DL 281/09]. This legislation is a Public-Law, which may increase its effect in the provision of mandatory ECI for all eligible children from 0 to 6 years old (Serrano & Boavida, 2011). However, as relevant findings and recommendations of previous evidence were not accounted for in the formulation of the new Law, advocacy movements of parents, ECI professionals, researchers, and politicians were created in an effort to assure the maintenance of ECI recommended practices. It is of crucial importance to consider that this legal provision establishing the NECIS was published one year after the legislation for special education (Decreto-Lei n.º 3/2008 [Decree-Law - DL 3/2008]), also targeting preschool-aged children (3-6) in need of special support. Thus, regarding service provision for this age-group, there is an overlap between these two DL which has not been regulated by specific guidelines, resulting in incoherencies in the application of DL 281/2009 that should be addressed in the future.

According to the DL 281/2009, ECI is defined as a set of measures of integrated support centered in the child and family and includes preventive and rehabilitation interventions in the scope of education, health, and social security. This legislation builds on national, regional, and local coordination structures involving at each level shared responsibility from the Ministries of Health, Education, and Solidarity and Social Security, with the collaboration of Private Institutions of Social Solidarity. Services aim to provide ECI to children between 0-6 years at risk of developmental delay or with established conditions. Identifying the biopsychosocial model (Engel, 1977) as a framework for approaching disability, this DL recommends the use of the International Classification of Functioning Disability, and Health – Children and Youth version (ICF-CY; World Health Organization [WHO], 2007) for eligibility and documentation purposes, stating that, in addition to developmental problems, the child's potentialities should be taken into account, and underlines the need to plan for changes in the child's environment.

Specifically, the NECIS includes (a) a national coordination committee consisting of two delegates from each Ministry and chaired by a delegate from the Ministry of Solidarity and Social

Security, (b) five regional subcommittees, and (c) 149 local intervention teams. Each Ministry is responsible for nominating professionals for regional subcommittees and for ensuring the allocation of professionals to local intervention teams.

At the regional level the subcommittees are responsible for managing human, material, and financial resources, for collecting and updating information between the national and the local level, as well as for planning, organizing, and coordinating the actions of the local intervention teams. At each subcommittee's level, efforts were made to rapidly constitute the local intervention teams, but it was only in September 2011 that the NECIS was partially in place.

The national coordination committee, in collaboration with the regional subcommittees, recently created a Technical Manual that includes a set of guidelines aiming to regulate the implementation of legal requirements, as well as documentation for local intervention teams, namely: eligibility criteria, child referral forms, child/family characterization forms, Individualized Early Intervention Plan (IEIP) form, etc. According to this Technical Manual, the functions of the Technical Supervision Nucleus include supporting the regional subcommittees in (a) coordinating local agencies and services; (b) planning, organizing, and evaluating the functioning of local intervention teams; (c) analyzing and verifying the use of the eligibility criteria; and (d) providing technical support to local intervention teams.

Principles underlying the Developmental Systems model

In the last decades there has been an international growing consensus around the conceptual framework and recommended practices in ECI, indicating a paradigmatic shift from a traditional approach to disability based on a child-centered medical model to a developmental contextualism framework (Bronfenbrenner & Morris 1998; Lerner, 2002, 2005). However, the impact of theoretical perspectives, ideas, and legal requirements on the innovation of ECI professional practices is a long standing process.

Prior to an analysis of how the *structural components* of the Guralnick's developmental systems model (Guralnick, 2001, 2005a, 2011) are represented in the new Portuguese legislation and in the current status of ECI in Portugal, we will consider how the three most prominent principles in the field (Guralnick, 2005a) are embedded in the Portuguese current legislation.

Principle of Developmental Orientation. The Developmental Systems Model is explicitly centered on families and organized to address family and child characteristics and stressors in an attempt to strengthen family's abilities (Guralnick, 2001). DL 281/2009 states that intervention should be implemented according to the needs of the family and should support families in accessing social, health, and educational services and resources. Similarly, the special education policy, DL 3/2008, states that family should actively participate both in assessment and in Individualized Education Program (IEP) development. However, as specific guidelines and procedures were not established, this principle is not fully acknowledged in the legislation.

Principle of Inclusion. According to Guralnick's Developmental Systems Model (Guralnick, 2001, 2005a, 2011), inclusion involves support and service provision in natural environments, maximizing children and families' participation in typical community activities. DL 281/2009 also states that the NECIS should be developed accounting for family circumstances and within community contexts and that, among other responsibilities, the local intervention teams should identify community needs and resources, streamlining formal and informal social support networks. Local intervention teams should also implement ECI in full coordination with preschool teachers, whenever children are attending infant-toddler home-based or center-based child care or preschools. The legislation clearly states the right of children to inclusion and full participation.

Principle of Integration and Coordination. DL 281/2009 clearly addresses the principle of integration at all levels of the NECIS, as described above. However, as will further be discussed in the next section where services are described, we do not find any specific guidelines concerning the processes of team work related to assessment, intervention, plan development, and

implementation. Furthermore, coordination among the three Ministries and even inside each Ministry is still far from being achieved. This process is a complex and long lasting endeavor involving the co-construction of meaning among agents from diverse backgrounds about how to organize and coordinate services. Such venture is highly challenging as it needs continuous and ongoing joint efforts for improvement. An example of this kind of challenge in keeping integrated and coordinated actions is the coexistence of two different legislations that currently regulate ECI and special education in Portugal, thus overlapping in the provision of services for children aged 3 to 6 and their families. If not addressed, this challenge may compromise the integration and coordination of ECI services in our country.

Current status of services for children with disabilities or at risk under the age of 6

In this section, we analyze the Portuguese NECIS according to the components of the Developmental Systems Model for ECI for vulnerable children and their families (Guralnick, 2001, 2005a), as represented in Figure 1.

----- Insert Figure 1 about here -----

Screening program and referral. The Ministry of Health is responsible for ensuring the detection and referral of children to ECI. However, any individual (including parents) or agency may signal a potentially vulnerable child to ECI, through the local intervention teams. Presently under reform, the national health system includes local health centers and an increasing number of family health units (serving communities between 4.000 and 18.000 citizens). Both centers and units comprise child and youth services which implement overall screening procedures, based on the attainment of growth and development milestones. Within the national health system, upon

referral, developmental assessment is provided in development centers situated in five main hospitals and in development clinics located in the district hospitals that include pediatric services. However, specific guidelines on the procedures and measures to be used for developmental screening and assessment are not available. Consequently, decisions about referral lack consistency, as they do not follow specific criteria and depend predominantly on the individual judgment of primary health providers. Any decision about subsequent services is taken only after families enter the ECI system.

Monitoring and surveillance. Local intervention teams must ensure the surveillance of children who are referred for assessment and do not meet eligibility criteria but require periodic assessment, due to the nature of existing risk factors. Local intervention teams must also ensure referral of non-eligible children that require social support and should cooperate with child protection services supporting those families. Specific protocols or guidelines regarding the frequency and format of such surveillance need to be provided to local intervention teams by either regional or national coordinating structures. Also, as will be further described, no protocols are available to support professionals in identifying risk factors and associated family stressors. In the lack of such protocols, the monitoring program may be at risk of being jeopardized and replaced by the periodic clinical assessment/survey of children from families at risk, as part of the health services regular practice (see Fig. 1).

Point of access. There is no clear specification of a point of access. Local intervention teams, as community-based ECI services, can be considered the point of access to the NECIS as they are mandated to gather and manage referral, eligibility, and surveillance information. However, due to lack of diffusion procedures, communities often ignore the existence of ECI services. Thus, the health professional area may tend to continue being the point of access for most children. In fact, the legislation states that the ministry of health, in addition to detection and referral responsibilities, should activate the early intervention process, as well as provide

diagnoses and specialized orientation. The national ECI legislation and technical guidelines do not specify different service provisions for children with disabilities or developmental delays and for children at biological or environmental risk. Although this legal framework appears theoretically sound and conveys an inclusive philosophy, some factors may compromise the right of accessibility to the ECI system mainly for children at sociocultural risk. In fact, although children at risk may be referred for social support, no specific guidelines are available regarding their monitoring by local intervention teams. Also, the development of preventive intervention programs is not foreseen in the legal framework.

Comprehensive interdisciplinary assessment. As we can see in Figure 1, the schematic structure of the NECIS purposefully lacks this specific component, as the legislation and technical guidelines available to local intervention teams do not include any reference to a comprehensive interdisciplinary assessment between the point of access and eligibility decisions. Although the technical guidelines made available to local intervention teams require professionals to use a transdisciplinary model, they are merely required to analyze the referral form and to assess the eligibility criteria in order to decide on children's admission to the program. However, as previously mentioned, prior to referral, services under the Ministry of Health are required to refer children to hospital-based development centers or clinics to gather information for diagnostic and specialized guidance purposes. At the present, no precise data is available on the comprehensive and interdisciplinary nature of this assessment. Based on previously conducted research studies in Portugal (Bairrão & Almeida, 2002; Cardoso, 2006; Mendes, 2010; Pimentel, 2005) we may assume that both at the screening and at referral level, the assessment is still predominantly mono or multidisciplinary, with professionals implementing isolated assessment procedures and subsequently exchanging reports or oral information during meetings or informally.

Eligibility. In compliance with DL 281/2009, the NECIS Coordinating Committee released, in 2011, national eligibility criteria. By law, ECI services are provided to two groups of

children between 0 and 6 years of age and their families: (1) children with limitations in body functions or body structures that limit their normal development and participation in typical activities, considering their age and social context; and (2) children at severe risk for developmental delay, that is, with biological, psycho-emotional or environmental conditions that determine a high probability of a relevant developmental delay. All children with established conditions, as well as children from group 1 are eligible, when their situation is documented by specialized professionals. Children from group 2 are eligible only when they accumulate four or more biological and/or environmental risk factors. This number has been considered the cut off point for the cumulative effect of risk factors to take place.

Assessment of stressors. Once families enter the ECI Program, the IEIP is developed by the local intervention teams. The IEIP is a two-fold process that should include children's assessment within their family setting as well as a description of the measures and actions that need to be implemented. In accordance with the elements required in this plan, assessment should focus on the needs and resources of both the child and the family. The IEIP should include information on the changes needed in the environment so that the child's potential may be actualized. The ICF-CY (WHO, 2007) is mandated as a framework to document children's activities and participation (and respective limitations in functions), as well as the environmental factors that represent barriers or facilitators in their daily settings. The guidelines from the Technical Manual require local intervention teams to describe families' formal and informal support networks, needs, and priorities. Nevertheless, some conceptual contradiction is evident, as the IEIP requires teams to describe children solely based on developmental domains. Although some focus on families is present both in the legislation and in the IEIP requirements, we may affirm, based on the last studies about the Portuguese reality, that the assumption of a family centered approach by professionals is still not a reality which, therefore, compromises the effective assessment of family stressors. In fact, in addition to the conceptual contradictions

mirrored in the IEIP structure, no protocols are available to guide professionals in capturing the complexity of intra and interpersonal factors and characteristics at the family level that may be causing distress and disruption of optimal patterns of interaction. Considering that assessment of stressors is conceptualized as the core component of the developmental systems model in ECI (Guralnick, 2001, 2005a, 2011), it is crucial to address this issue as it compromises all subsequent components of ECI.

Develop and implement a comprehensive program. The IEIP must define the measures and actions needed to ensure the complementary of services and agencies and local intervention teams must promote the cooperation between all parties involved in plan implementation. Local intervention teams are also required to promote the families' active participation in the assessment and intervention process, with case managers participating, together with families, in the identification of resources, concerns, and priorities and in decision making. According to ECI goals, services are to be tailored according to the needs of the family and interventions must prevent or reduce risks for developmental delay, support families in accessing social security, education, and health services and resources, and involve the community through social support mechanisms. However, and as previously stated, there is a lack of tools that may support professional practices, allowing them to acknowledge specific aspects of parent-child processes, as well as stressors that may influence child development. The need for such tool to support professional practice is even more relevant if we consider data from a review of studies on ECI in Portugal that shows evidence of the difficulties professionals have in assuming families as partners, although their ideas frequently express the need to develop family centered practices (Pinto et al., 2009). Decision rules for individualizing interventions are not available at this point, despite the fact that research on the individualization of services and on the quality of IEP and IFSP goals and objectives, prior to the implementation of the NECIS, suggested these were areas

of concern (e.g., Boavida, Aguiar, McWilliam, & Pimentel, 2010; Castro, Pinto, & Simeonsson, 2012; Ferreira, Pinto, & Coelho, 2011; Simões & Brandão, 2010).

Monitoring and outcome evaluations. At the individual level, the IEIP must include information regarding the timing of child and family evaluations. Although a time frame is not specified for this task, these evaluations must be completed, at least, annually. However, as assessment-intervention processes often seem to lack coherence (Boavida et al., 2010; Castro et al., 2012) and the assessment of family stressors is not clearly defined, the monitoring system is highly compromised. Based on this information, asymmetries between different teams are expected to occur, both at monitoring and at program evaluation levels, and there is high probability that both processes may occur in a mono-disciplinary basis. At the national level, the National Committee is required to evaluate the NECIS every 2 years.

Transition planning. The new law requires that the IEIP includes a description of the procedures that ensure an appropriate transition process to preschool or to primary school. This intervention plan must be harmonized with the IEP when children enter public preschool or school. However, specific guidelines regarding the joint use of IEIP and IEP are not available. Although this component is of great relevance, as there are numerous transitions in children's lives that may affect family routines and thus be a cause of stress, research regarding transition planning is scarce in our country (Fonseca, 2006). Also, specific guidelines are needed to assist professionals in implementing a thorough assessment of the various transitions that may cause disruption for children and their families. Only then can they design planning processes for transition that specify the unique circumstances of each case within a specific community.

Future recommendations for the expansion and improvement of services in Portugal

Although noticeable progress was achieved in the Portuguese ECI system over the past 30 years, some constraints that hinder the implementation of a quality ECI system should be

underlined. In this section, we propose an agenda for change in ECI in Portugal, inspired in Guralnick's suggestion (2000), in scientific and historical evidence and relying on the value of a long lasting in-depth dialogue between researchers and practitioners.

Agenda Item #1 – Develop a set of guidelines providing local intervention teams with a common conceptual framework on family-driven, community-based, transdisciplinary practices, and specifying evaluation procedures. There is an urgent need to define quality criteria for ECI practices as well as corresponding indicators, and to provide professionals with specific tools that operationalize the main principles of ECI, according to recent literature in the field (Dunst & Trivette, 2009; Guralnick, 2001, 2005a, 2011; McWilliam, 2003, 2010). Although some of these principles are embedded in the legislation, a common set of guidelines specifying the organization of resources and materials at different levels are needed, in order to reduce undesirable asymmetries and support teams in implementing recommended practices and in evaluating outcomes. This endeavor requires a profound dialogue between researchers/experts in the field and service coordinators at a national, regional, and local level. With this aim, a consulting committee should be established at national level comprising such specialists of recognized scientific and academic expertise.

Agenda Item #2 – Explore approaches for professional training that are recognized in the ECI literature as appropriate and effective. Two levels of training should be considered: (a) professional training in ECI available as an option in the national list of qualifications; (b) definition of national in-service training and supervision guidelines, comprising specific knowledge on the main ECI concepts, embedded in practicum experiences and conveying consultant and collaborative models. Instead of focusing on specific domains of professional expertise, such training should be targeted to the team as a whole, should be developed according to principles of adult learning and based on methods and strategies found to be effective in promoting positive learning outcomes (Dunst, Trivette, & Hamby, 2010). Such training should

involve professionals in local intervention teams (under DL 281/2009) as well as teachers from schools of reference for ECI (under DL 3/2008), thus favoring the coordination of services and practices between professionals covered by the two different laws.

Agenda Item #3 – Develop an in-service training and supervision network at the national level clearly specifying a technical supervision role by professionals with recognized expertise in ECI, and clearly differentiating this role from the coordination and administrative functions stated in DL 281/2009. Here we emphasize the role of the supervisor in ECI as a facilitator for communicational processes in the team, assuring actions of translation and mediation of ideas, research findings, and legislation contents.

Agenda Item #4 – Promote national efforts to integrate the special education services and the ECI legal dispositions currently overlapping. This issue is directly related with the overlap and incongruence between the two legislations that currently define services for children between 3 and 6 years of age and their families. Note that while the special education law (DL 3/2008) is characterized by a child-centered approach and based on a monodisciplinary framework of service delivery, with children receiving support by professionals from different areas according to their needs in specific developmental domains, the ECI law (DL 281/2009) requires that multidisciplinary local teams are responsible for the development of integrated community-based services.

According to Guralnick (2005b), improving the quality and scope of community-based systems is the most complex problem faced in field of ECI. To accomplish this, the author claims the need for adequate resources and professional training goals that are only likely to occur in case communities identify a “series of ECI system components along with corresponding protocols, assessment tools, and decision-making processes that represent an agreed upon conceptual framework for ECI principles and practices” (p. 321).

Agenda Item #5 – Develop new guidelines at a national level concerning the rules for placement of teachers within the ECI system. In addition to the professional training outlined in the previous item of the agenda, specific rules for teachers' placement should be created, considering the following priority criteria: graduate and post-graduate training in ECI, experience in the field, as well as in-service training. Professionals working with children with a disability or at risk, from birth to 6, should integrate a unique system of service delivery, with local intervention teams serving as an aggregating structure. Professionals' roles in the team should be clearly stated within a family-centered community-based approach. The Developmental Systems Model (Guralnick 2001, 2005a) provides a strong conceptual tool to help overcome this issue.

Agenda Item #6 – Develop comprehensive protocols to support the decision making process concerning the monitoring and surveillance of children at risk that do not meet referral criteria for intervention services. Although the NECIS currently comprises a monitoring and surveillance component, as described by Guralnick (2001, 2005a), if we consider the multiplicity of adverse socioeconomic factors (aggravated by the present financial and economic crisis) that may be associated with non-optimal child development, it is a priority to develop comprehensive guidelines to assure that children with a large variety of vulnerable conditions are not left out of the system. This issue is related to another component of the developmental systems model, the assessment of stressors present in families' patterns of interaction (Guralnick, 2011) which will be addressed in the next item.

Agenda Item #7 – Develop comprehensive protocols to support professionals in their interactions with families. Within a family-centered perspective, interaction patterns assume a crucial relevance in ECI. As risk factors can act as stressors, specific guidelines for assessment-intervention processes and procedures should be available to guide professionals in their interactions with families, enabling them to determine relevant family characteristics, such as

needs and distress that may mediate children's negative developmental outcomes (Guralnick, 2005b, 2011).

Agenda Item #8 – Develop nationwide screening protocols. Screening and referral, a key structural component of the Developmental Systems Model, should be based on the use of reliable, valid, and culturally relevant screening tools. This cautionary statement is relevant, as Portuguese researchers and practitioners often use instruments developed in other countries (mainly in the USA). In addition to the need to attend to the features of screening tools, equal opportunity of access to the NECIS requires the adoption of a coherent and universal developmental screening protocol. The need to develop mechanisms which promote a more active role from health professionals, especially from pediatric services, in early detection and screening should also be highlighted. In addition, at the community level, a consensus should be reached among relevant local entities in the establishment of guidelines for decision making regarding different levels of screening (i.e., universal, selected, and targeted) and related instruments and assessment protocols.

Agenda Item #9 – Defining nationwide protocols for comprehensive interdisciplinary assessment. Presently, the NECIS does not acknowledge the need for a comprehensive interdisciplinary assessment between referral and eligibility decisions. In fact, decisions about initial assessment and eligibility for the ECI services are merged and may tend to be triggered by the team coordinator, usually a medical doctor. Bypassing this structural component may result in insufficient information to support eligibility decisions and to make general recommendations, including decisions about referral to social support or about inclusion in the monitoring program (Guralnick, 2005).

Concluding remarks

This manuscript may help clarify directions of change towards a family-centered comprehensive ECI system and to state orientations for professional practice. Despite the fact

that Portugal is currently one of the few European countries with a specific legislation on ECI (European Agency for Development in Special Needs Education, 2010), several legal specifications and practical changes are needed to improve the effectiveness of the systems included in the Portuguese NECIS. Guralnick's model (2001, 2005a) provides a structure to apply organizational changes based on its principles and describes specific components that highlight weaknesses in the system and support practical changes.

Further, as the NECIS is still in its first few months of implementation, efforts are being developed in the co-construction of coordinated and integrated processes within and between services at national, regional and local levels. We need a better understanding on how ECI professionals build their practices and potentially become agents of change. In fact, concerning Portuguese ECI, one problem that cuts across the system is the need for an effective cooperation between policies, regulations, and practices in diverse sectors and at different levels (national, regional, and local). Such cooperation between policymakers and professionals may stem from the development of shared responsibility and common aims in order to guarantee the families' and children's rights to ECI services, as stated by law.

Considering that services are acculturating systems that promote the development of attitudes, beliefs, and patterns of behavior in their participants, most families have been acculturated by former experiences, namely throughout contacts with health and educational services in child-centered practices. Thus, practices which are not family-centered may be reinforced by families, and it is the professionals' responsibility to contribute to changes in parental expectations and to involve them in the co-construction of a new culture (Lopes-dos-Santos & Carvalho, 2008). This is a challenging and long-term process that will require trust, perseverance and good-will in long-standing dialogues between scientific and practical discourse, embedded in the real life situations of families and communities.

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Table 1

Agenda for change in ECI in Portugal

Focus of change	Recommendations
ECI framework	<ul style="list-style-type: none"> • To develop a set of guidelines providing local intervention teams with a common conceptual framework on family-driven, community-based, transdisciplinary practices. • To define quality criteria and indicators for ECI practices, specifying evaluation procedures. • To establish a consulting committee at the national level comprising specialists of recognized scientific expertise.
In-service training and supervision	<ul style="list-style-type: none"> • To define national in-service training and supervision guidelines targeting both local intervention teams and teachers from schools of reference in ECI. • To develop in-service training according to principles of adult learning and based on effective methods. • To differentiate technical supervision from the coordination and administrative functions stated in DL 281/2009, ensuring that technical supervision is provided by professionals with recognized expertise in ECI.
Integrating legal dispositions	Promote national efforts to integrate the early childhood special education services and the ECI legal dispositions, currently overlapping, assuring that all children from birth to six and their families receive support from transdisciplinary teams, responsible for the development of integrated, community-based services, within a family-centered approach.

Placement of teachers	<ul style="list-style-type: none"> • To develop specific rules and priority criteria, at a national level, for the placement of teachers within the ECI system. Priority criteria should include: graduate and post-graduate training in ECI, experience in the field, and in-service training. • To assure that all professionals working with children with a disability or at risk, from birth to six, integrate a unique system of service delivery, with local intervention teams serving as an aggregating structure.
Monitoring and surveillance	To develop comprehensive protocols to support decision making regarding the monitoring and surveillance of children at risk that do not meet referral criteria for ECI, assuring that children with vulnerable conditions are not left out of the system.
Interactions with families	To define specific guidelines for assessment-intervention processes and procedures to guide professionals in their interactions with families, enabling them to determine relevant family characteristics, such as needs and distress.
Screening	<ul style="list-style-type: none"> • To develop a coherent and universal developmental screening protocol, using adapted and validated screening tools and related instruments, assuring equal opportunity of access to the NECIS. • To ensure a more active role of health professionals, especially from pediatric services, in early detection and screening;
Interdisciplinary assessment	To define nationwide protocols for comprehensive interdisciplinary assessment, ensuring that essential information on children's health and development and families needs is obtained and used in intervention plans and recommendations.

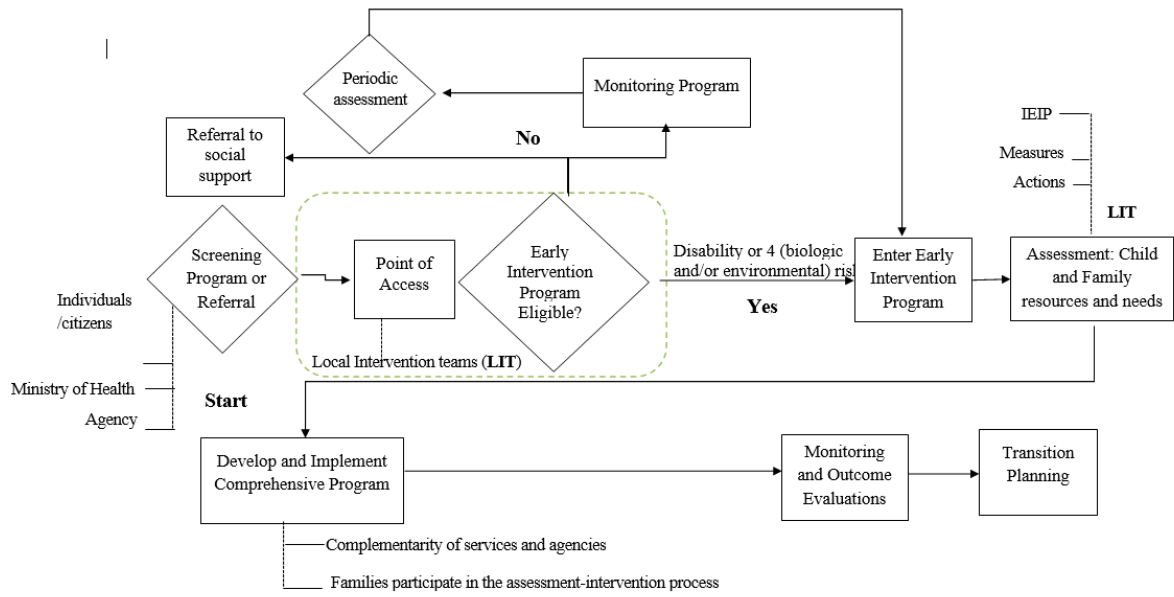


Figure 1. Portuguese national ECI system according to the developmental systems model for early intervention for vulnerable children and their families.