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EARLY CHILDHOOD INTERVENTION IN SPAIN

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This article highlights an area of work in Clinical Psychology which has become a discipline itself in work with children, and attempts to clarify the current concept of early intervention and its territorial structure in Spain. We begin with a general definition of early childhood intervention, continue by describing how early intervention began in Spain and its pioneers, and conclude by showing how this service is structured in the various Autonomous Regions, and in particular in the Region of Andalusia.
***Key words**: Early intervention, Childhood.*

Este artículo pretende destacar un ámbito de trabajo de la Psicología Clínica que se ha convertido en una disciplina propia de actuación en la población infantil, para ello se trata de esclarecer el concepto actual de atención temprana y su estructuración territorial vigente en nuestro país. Comenzamos por una definición general de la atención infantil temprana, se continúa especificando los inicios de la atención temprana en España y sus pioneros para finalizar planteando como se estructura este servicio en las diversas Comunidades Autónomas, y en particular en la Comunidad Autónoma de Andalucía.
***Palabras clave:** Atención temprana, Infancia.*

It is well known that the first years of human life are crucial to a person's adequate biological, psychological and social development (San Salvador, 1998). Experiences in the early years of life are said to leave their mark forever (Alonso, 1997). Therefore, exhaustive knowledge of this stage of childhood is especially important to human development, above all, when there are signs showing the existence of congenital, metabolic, maturity, or any other disorder or its risk. In fact, attention and early intervention greatly improve the possibilities for biopsychosocial development of these boys and girls.

Early intervention (EI) goes back to the early 20th century, when special attention to subjects showing some type of deficit began. But EI has only been as it is understood today for the last 30 years, and is still forming as a scientific discipline.

In the beginning, due to the work of several different authors who studied human developmental stages, importance began to be given the first stage of development, leading to the disabled being observed differently (Candel, 2005). Thus in the beginning, EI provided care, compensatory rehabilitation and therapy to the disabled, while in the last 30 years, this caregiving model has been replaced by prevention (Pons, 2007). It does not attempt to keep those deficits from interfering in the child's life, but avoid their appearance or act on biological factors and socioenvironmental privation that could cause their appearance. It begins working from a multidisciplinary perspective with the firm belief that children with these deficits can develop a useful life and become perfectly integrated in society, as long as they receive the necessary specific attention.

As EI is based largely on prevention, it can be related to primary, secondary and tertiary prevention. Primary prevention in EI deals with subjects at "high risk" of suffering from a deficit, although there are not yet any visible symptoms or they have not yet been diagnosed. These universal health protection measures are directed at the entire population. Secondary prevention avoids something that could cause the appearance of a disorder or deficit, slowing its evolution and duration, or palliating its effects, to reduce a disease in the population. EI attempts to make early detection of diseases, disorders or risk situations. Finally, tertiary prevention is intended to diminish the chronic impairment of a population and any disability due to illness. EI is directed at minimizing the consequences and effects of a deficit or disease once it has been diagnosed. An attempt is made to palliate the consequences derived from a child's metabolic, neurological, genetic or developmental disorders or pathologies.

However, today there is still a certain scientific discrepancy on the exact conceptualization of early

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childhood intervention and precisely what attention children receive under the umbrella of early childhood intervention in our country. From the beginning, EI has been a controversial field insofar as its sociopolitical value (never has there been so much legislation for a single concept that clarified so little), the subjects it should care for (wide range of age that varies from one community to another), and intervention strategies. It was not until the mid-eighties that concern intensified and a certain consensus was arrived at among the professionals involved. At the present time it is accepted as an effective strategy for preventing and compensating for the effects of any type of deficit (developmental, biological or social) which could appear together or individually early in a child's life.

THE EARLY CHILDHOOD INTERVENTION CONCEPT

At the present time, the concept used is EI, replacing early stimulation, which is what this type of intervention was original called. The basic purpose was treating the child who had some physical, mental or sensory deficiency which appeared at the start of life, with which the term was very closely linked to treatment of the disability. Intervention was based on a clinical model. This is why most of the treatments concentrated on structured behavioral methods to be able to teach the child new skills (De Linares and Rodríguez, 2004). The application of theoretical psychological models, such as ecological and transactional to psychoeducational spheres and the contributions of social psychology led to the child being viewed as the result of a complex process of interactions between the organism and the environment. Today the influence of variables as relevant as the emotional state of the family, social support, etc., is undeniable, and they have made the EI concept change significantly.

Today the concept of Early Intervention, generally taken to be as described in the "White paper on Early Intervention" (Grupo de Atención Temprana-GAT, 2005, p. 14), would be as follows: *"Early Intervention is understood as the set of interventions directed at the population of children from 0-6 years of age, their family and setting, the purpose of which is to provide the quickest response possible to the transitory or permanent needs of children with developmental disorders or who are at risk of acquiring them. Such intervention, which must consider the child in his entirety, has to be planned by an interdisciplinary or transdisciplinary team of professionals."*

In keeping with the conceptual change, not only must action be directed at the population from 0 to 6 years old, but also their family and community.

Many scientific disciplines, such as neurology, developmental psychology, education, physiotherapy, speech therapy, etc. support the theoretical basis of EI. What is called neurohabilitation or early rehabilitation is based on neurology, on the plasticity of the brain in the early months of life, on the basis of activation and functional use of all the central nervous system structures that retain their normal functioning, and even those with incomplete functions related to brain damage. The effectiveness of EI programs is based, then, on how early the intervention is, which in turn depends on early diagnosis of problems leading to later development of a neurological pathology. This diagnosis enables work with children to begin early and is more effective the earlier it is, since the capacity for assimilating and integrating new experiences is much greater in the early stages of development, because neural connections can increase in response to environmental stimulation (Perez-López and Brito, 2004). All these disciplines on which EI is based make it possible to acquire the tools necessary to provide children with deficits or their risk with a set of planned, organized actions that facilitate their maturing in all areas, and thereby enabling them to reach maximum development and social integration (Quiros, 2009).

The concept of "Early Intervention" emerged during the nineties. According to Candel (2005), EI should not be understood as a treatment for the child, but as a series of actions directed at the children, their families and the general community. There is a belief in the cerebral plasticity of the nervous system, and the child is no longer seen as a passive object (GAT, 2005), leading to the conclusion that the process of brain maturation does not end with the child's birth, but continues developing for some time, and with hard work and effort, can be modified (Gútiez, 2005). It is now when importance is also beginning to be given the child's environmental factors, in the belief that shortage of resources could influence development of a possible deficit.

EI activity began to become rooted during the nineties as a number of different studies and research projects in different areas gave rise to the concept that is used at

present and which found the consensus of professionals in the field as described in the book entitled, *"Libro de Atención Temprana"* "Early Intervention Book" (GAT, 2005). This book is a reference for all the sectors involved in EI: associations, professionals, institutions, researchers, families, or anyone who intending to offer proper intervention to this group. Today, EI areas and competent authorities are social services, education and health-care. These areas are regulated by a national and regional legislative framework which is coordinated and takes action to ensure that EI centers in Spain are free of charge and universal. The main goals to be met are prevention measures, detection as early as possible and intervention focused on the maximum development of physical, mental and social faculties of the children diagnosed.

The model described by the *Grupo de Atención Temprana* [Early Intervention Group] has a series of characteristics as enumerated below (Gútiez, 2005):

a) The child as the main agent of his development
b) Change to the educational model
c) Intervention linked to the first diagnostic evaluation
d) Prominent role of the family
e) Natural settings with significant activities
f) Importance of support of a (multidisciplinary) professional team

The main goal of EI is to favor the child's development and wellbeing and that of his family, making his integration in the family, school and social settings and his personal autonomy as complete as possible (Candel, 2005). This is why work is in cognitive, autonomy, language and communication, and motor areas, in addition to advising, orienting and intervening individually and/or in groups with the families who have a child with any disability or are at risk of one, according to the diagnosis given in the Early Intervention Diagnostic Organization (*Federación Estatal de Associaciones de Profesionales de Atención Temprana*[1] – FEAPAPT, 2008).

WHO RECEIVES EARLY CHILDHOOD INTERVENTION

At present, children with a "deficit", "disability" or "handicap" and children at high risk in whom any disability in general could take root are included in the primary prevention programs under a general childhood protection policy, abandoning the EI model which enumerated subjects eligible for intervention. A huge step forward in the quality of EI services was taken with the three levels of intervention established. In this sense, it is important to emphasize that not all children that receive EI treatment are disabled or handicapped, according to Royal Decree 1971/1999, of December 23rd, on procedure for examination, declaration and qualification of the extent of handicaps.

EI, as mentioned above, is therefore directed at all children from zero to six years who show some type of deficiency, although the age varies depending on the region, and also all those children at any high biological, psychological or social risk (Gútiez, 2005) which could affect their development.

The first group refers to children who suffer from a documented impairment or disability (motor, cognitive, language, sensory or generalized development disorders, behavioral, emotional, somatic expression, development disorder, etc.). The second group is comprised of children who during their period of prenatal, perinatal, postnatal or early development, have been subjected to situations that could impair maturing, such as prematurity, low weight or anoxia at birth (GAT, 2005) (Table 1).

Finally, children at psychosocial risk are those who live under unfavorable social conditions, such as lack of care or adequate interaction with parents and family, maltreatment, negligence, or abuse that could impair their maturation (GAT, 2011; Pina, 2007). Sometimes, the parents of these children have poor attitudes that the EI programs should reduce or modify (see Table 2), such as anxiety or incompetence for taking on responsibility and covering the special needs of their children. And so the child's development is improved, or at least, is not under its negative influence.

When the White Paper on EI was being written, it became clear that specific diagnostic criteria would have to be set for EI, which by consensus could enable epidemiological studies to be done, research to be designed, preventive measures facilitated, means of action contracted and a common language established among professionals in the various disciplines involved in EI. This awareness pointed out the need to create the *Organización Diagnóstica para la Atención Temprana* - ODAT [Diagnostic Organization for Early Intervention]

[1] State Federation of Early Attention Professional Associations

(FE-APAT, 2004, 2008), which enables not only disorders or difficulties in development to be identified based on prior international classifications, but also etiological factors that cause them, whether biological, psychological and/or social.

This classification system is organized around a series of axes that have been modeled to contain the lists of biological, psychological and social aspects, and the continuum represented by detection, diagnosis and treatment. The structure consists of three levels:

The **first level** describes risk factors for developmental disorders by context, in the child, in the family, and in the setting. It includes:

1. Biological risk factors
2. Family risk factors
3. Environmental risk factors

The **second level** describes the type of disorder or dysfunction that might be diagnosed in the child, in his interaction with the family and the characteristics of the setting. It includes:

TABLE 1
EARLY BIOLOGICAL RISK FACTORS

A. NEWBORN AT NEUROLOGICAL RISK	
✔ NB weighing < P10 for their gestational age or weight < 1500 grs or gestational age < at 32 weeks (*) ✔ Apgar < 3 at one minute or < 7 at 5 minutes. ✔ NB with mechanical ventilation for over 24 hours ✔ Hyperbilirrubinemia requiring exchange transfusion ✔ Neonatal convulsions ✔ Neonatal sepsis, meningitis or encephalitis ✔ Persistent neurological dysfunction (over 7 days)	✔ Brain damage shown by sonogram or CAT ✔ Malformations of the Central Nervous System ✔ Neuro-Metabolopathies ✔ Chromosomopathies and other dysmorphic syndromes ✔ Child of mother with mental pathology and/or infections and/or drugs that could affect the fetus ✔ NB with sibling with unclarified neurological pathology or risk of recurrence ✔ Twin, if the brother shows neurological risk ✔ Whenever the pediatrician deems appropriate
B. NEWBORN WITH SENSORY RISK - VISUAL	
✔ Extended mechanical ventilation ✔ Very premature ✔ NB weighing < 1500 grs. ✔ Hydrocephalus ✔ Congenital infections of the Central Nervous System	✔ Cranial pathology detected by sonogram/CAT ✔ Malformation syndrome compromising vision ✔ Postnatal infections of the Central Nervous System ✔ Severe asphyxia
C. NEWBORN WITH SENSORY RISK – AUDITORY	
✔ Hyperbilirrubinemia requiring exchange transfusion ✔ Very premature ✔ NB weighing < 1500 grs. ✔ Congenital infections of the Central Nervous System ✔ Ingestion of aminoglycosides during an extended period or at high plasma levels during pregnancy	✔ Malformation syndrome compromising hearing ✔ Family history of hypoacusia ✔ Postnatal infections of the Central Nervous System ✔ Severe asphyxia
Source: GAT (2005; 2011)	

TABLE 2
SOCIAL-FAMILY RISK FACTORS

✔ Severe economic privation ✔ Traumatizing accidental pregnancy ✔ Conflictive coexistence in the family ✔ Traumatizing separation in the family ✔ Parents with low IQ/Unstimulating setting ✔ Severe illness/Exitus ✔ Alcoholism/Drug addiction	✔ Prostitution ✔ Delinquency/Imprisonment ✔ Adolescent mothers ✔ Suspicion of abuse ✔ Children admitted to children's homes ✔ Families that repeatedly do not meet health inspections
Source: GAT (2005; 2011)	

1. Developmental disorders
2. Family
3. Setting

The **third level** must include the resources distributed on three axes: for the child, his family and his setting, which is developed in a later stage of the ODAT.

The ODAT must be used by any professional or Child Development and Early Intervention Center as a tool for collecting information and diagnostic classification.

The treatment is carried out in the Child Development and Early Intervention Centers, which in Andalusia are called Early Childhood Intervention Centers, and respond to the regional need for a resource that encourage activities at all levels of prevention related to a child's upbringing, education and socialization, although each service or sector participates in each with a different intensity and responsibility.

EARLY CHILDHOOD INTERVENTION IN SPAIN

Early intervention, known at first as "early stimulation" (San Salvador, 1998), began in Spain in the late seventies, and today is considered a set of recently implanted actions. Although the American continent may be considered the pioneer in this activity, it emerged practically simultaneously in several different countries. The first institutional program was "Head Start" (Westinghouse Learning Corporation's Assessment of Head Start, 1969), which is based on early stimulation of school-age children who are socioculturally deprived or have some deficiency. This program was already being applied in the USA with children at risk from marginal environments (San Salvador, 1998).

BRIEF HISTORY OF EARLY INTERVENTION IN SPAIN

As mentioned above, EI is very recent, and as in most similar processes, began in private centers or associations of parents with children with certain deficiencies or disabilities (Coriat, 1997). Part of their treatment was funded by the *Servicio Social de Recuperación y de Rehabilitación de Minusválidos* – SEREM [Handicapped Recovery and Rehabilitation Social Service] in 1970, under the *Instituto Nacional de Servicios Sociales* – INSERSO [National Social Service Institute] in 1978, which finally went on to form its own service network. It was not until 1980 when EI became established as an individual recovery benefit.

The first cities to work in this area were Madrid and Barcelona (Alonso, 1997). Later centers in other autonomous regions, such as Navarra, Basque Country, Murcia, Madrid and Catalonia began to develop activities (San Salvador, 1998). This discipline is believed to have been triggered by a course entitled, "Brief Theoretical-Practical Course in Early Stimulation for Children under Five," given in Madrid from March 6 to May 11, 1973, in the Madrid School of Physiotherapy. EI began to be known in this country from that time on and awakened the interest of other professionals related to early stages of development. Stemming from this movement, the first Early Stimulation Unit in Spain was created at the Santa Cristina Hospital Maternity Ward in Madrid. That same year, the first services seeking to develop and strengthen childhood deficiencies were set up.

Several studies have been done in the last thirty years showing the evident effectiveness of these programs and many professionals from different areas have tested the data (Quirós, 2009). Some of the results that should be mentioned are the confirmation of the improvement in the child's overall development, diminishing or eliminating the effects of the impairments the child suffers from, as well as those caused by social deprivation. The influence of these programs on the family by contributing to parent training in EI has also been pointed out (Gútiez, 2005).

Once this effectiveness in early stimulation had been demonstrated, it was the parents of affected children who decided to get organized and collect information so their children could receive these treatments. Later legal and governmental measures were taken, and institutional subsidies, specialized centers and individual assistance were set up. All of this appeared for the first time in the SEREM "*Plan de Acciones de Recuperación para Minusválidos Psíquicos*" [Recovery Action Plan for the Mentally Handicapped] (1977) (Alonso, 1997).

The Ministry of Labor and Social Security was responsible for EI services (Alonso, 1997), which provided economic and social benefits for children who required them. Thus, on one hand, the Ministry of Labor entrusted the INSERSO with starting up the Recovery Action Plan for the Mentally Handicapped in 1980, and on the other, Healthcare Services, which observed the decrease in infant mortality and morbidity due to EI, also demanded attention for children already diagnosed or considered at "high risk".

LEGISLATION AND ORGANIZATION

Due to the characteristic structure of government in Spain, EI led to several different services related to childhood: healthcare, social and education (Table 3). This situation made certain difficulties obvious, such as coordination between services, difficulty for users in continuing treatments, for creating information channels or each service having its own way of carrying out its therapeutic practices.

To organize the action from these three areas, it was necessary to establish a legal framework that would organize and regulate EI functioning and development in these areas. The laws in effect on EI are few and rather recent and began by recognizing the rights of the child, giving rise to a new model of childhood intervention.

Spain has signed International EI legislation (GAT, 2005; GAT, 2011; Gútiez, 2005; Quirós, 2009) including the Declaration of the Rights of the Child (UN 1959), the Convention on Rights of the Child (UN 1989), ratified on November 30, 1990 (BOE 30-12-1990) and the European Social Charter, ratified on April 29, 1980.

Spain also has its own national legislation on EI in childhood, although as we mentioned above, these laws are still few and passed only recently (Quirós, 2009). However, more research on it is being done every day and a body of state regulations is developing little by little that spans the territorial diversity and legislation characteristic of our country (Table 4).

There is another important law in our country which should be mentioned: Law 131/1982, April 7th, on Social Integration of the Handicapped (LISMI). This regulation contains a series of *General Principles* (Article 1 and Article 3.1) which are based on Article 49 and the first article of the Spanish Constitution reinforcing the dignity and right of the disabled to receive all the resources possible to care for their needs. In the same law, we should mention its *Title Three: Prevention of Handicaps*, in Article 8 of which the right of preventing handicaps is specified as a priority obligation of the State, both in public health and in social services. Article 9.1 establishes the obligation of creating a law that sets basic organizational and coordination regulations in handicap prevention matters. It also ensures the creation of a *National Plan for Prevention of Handicaps*, in Article 9.2 of the same title. And finally, Article 9.3 enumerates the services considered most important and that must be included in detail in both the National Plan and in the law mentioned above.

Another transcendental law on EI is Law 14/1986, April 25th, on *General Health Care (LGS)*. Its *Title One* on the Health System, Chapter One, General Principles (Articles 3.1, 6 and 6.3) describes the type of action that is the competence of government public healthcare authorities, ensuring that healthcare would be directed at both preventing illness and promoting health. Furthermore, in *Chapter II on Healthcare Action by the Health System,* Article 18 on Government Administrations (Article 18.5) shows that care, protection and prevention programs are to be carried out for the population at risk, with risk factors and deficiencies, respectively. Finally, in its *Chapter III on Mental Health, Article 20,* on the basis of Mental Health action fully integrated in the general healthcare system and total equivalence of the mental patient with other persons, we are going to stress three relevant principles (Articles 20.4, 26.1 and 55.2(A)) in which aspects of primary prevention and care of

TABLE 3
MILESTONES IN EARLY INTERVENTION DEVELOPMENT IN EDUCATION SOCIAL SERVICES AND HEALTHCARE

AREA	FACT	ACTION
Education	Royal Decree on Organization of Special Education (1985), and especially the LOGSE	The principles of individualization and integration in the ordinary educational context are set out, the most common practice being classroom assistance
Social Services	Linked to Base Centers	In most cases they act through outpatient centers and give special importance to participation of parents and other family members.
Healthcare	The model that is least present in Early Intervention outside of Andalusia	The model that is least present in Early Intervention outside of Andalusia

Source: Pina (2007)

psychosocial problems are framed in Mental Health Services and Psychiatric Care in coordination with Social Services. Preventive measures for eminent risk situations, and finally, they describe in a generalized manner the type of activities to be carried out by the Areas of Health in the scope of primary care.

As observed when reading the legislation (Table 4), the immense majority of the autonomous regions consider EI

TABLE 4
NATIONAL AND REGIONAL LEGISLATION ON EARLY INTERVENTION

National

- ✔ Spanish Constitution of 1978
- ✔ Law 13/1982, April 7th, on social integration of handicapped. (BOE 30-4-1982)
- ✔ Royal Decree 383/1984, February 1st, promoting conciliation of family life and work for workers (BOE 6-11-1999)
- ✔ Royal Decree 1971/1999, December 23rd, on procedure for recognition, declaration and qualification of extent of handicap (BOE 26-12-2003)
- ✔ Real Decreto 1971/1999, de 23 de diciembre, de procedimiento para el reconocimiento, declaración y calificación del grado de minusvalía. (BOE 26-1-2000)
- ✔ Ley 51/2003, de 2 de diciembre, de igualdad de oportunidades, no discriminación y accesibilidad universal de las personas con discapacidad. (BOE 3-12-2003)

Autonomous Regions

Region	Childhood	Social Service or Equality and Social Welfare	Healthcare
Andalusia	Law 1/1998, April 20th, Rights and care of minors (BOJA 12-5-98)	Law 2/1998, April 4th, on Andalusian social services. (BOJA 12-4-88) Law 1/1999, March 31st, care of disabled in Andalusia (BOJA 17-04-99)	Law 8/1986, May 6th, Andalusian Health Service (BOJA 10-05-86) Law 2/1998, June 15th, Andalusian Healthcare (BOJA 4-7-98)
Aragon	Law 12/2001, July 2nd, on Childhood and Adolescence in Aragon (BOA 20-07-01)	Law 4/1987, March 25th, on organization of social action (BOA 30-3-87)	Law 2/1989, April 21st, Aragon Health Service (BOA 28-4-98) Law 8/1999, April 9th, revised ver. Of Law 2/1989, April 21st, on Aragon Health Services Law 6/2002, of April 15th, on Healthcare in Aragon (BOA 19/04/2002)
Principality of Asturias	Law 1/1995, January 27th, on protection of minors (BOPA 9-2-95)	Law of the Principality of Asturias	Law 1/1992, July 2nd, on Health Service in the Principality of Asturias (BOPA 13-7-92) Law 4/1992, July 15th, Balearic Health Service (BOCAIB 15-8-92)
Balearic Islands	Law 7/1995, March 21st, security and protection of defenseless minors (BOCAIB 8-4-95)	Law 9/1987, February 11th, Social Action (BOCAIB 28-4-87)	Law 5/2003 of April 4th, Health in the Balearic Islands
Canary Islands	Law 1/1997, of February 7th, Integral care of minors (BOC 17-2-97)	Law 9/1987, April 28th, Social Services (BOC 4-5-87)	Law 11/1994, July 26th, Organization of Healthcare in the Canary Islands (5-8-94)
Cantabria	Law 7/1999, April 28th, Child and Adolescent Protection (BOCA 6-5-99)	Law 5/1992, May 27th, on Social Action (BOCA 5-6-92) Cantabria Law 6/2001, November 20th, Protection of Dependent Persons (BOC 28-11-01)	Cantabria Law 7/2002, December 10th, Healthcare organization in Cantabria (BOCA 18-12-02)
Castile and Leon	Law 14/2002, July 25th, on Promotion, Care and Protection of Children in Castile and Leon	Law 18/1988, December 28th on Social Action and Social Services (BOCYL 9-1-89)	Law 1/1993, April 6th, Organization of the Healthcare System (BOCYL 27-4-93) Law 8/2003, April 8th, by the Courts of Castile and Leon, on laws and duties of people with regard to health
Castile-La Mancha	Law 3/1999, March 31st, on minors (DOCM 16-4-99)	Law 3/1986, April 16th, Social Services in Castile-La Mancha (DOCM 20-5-1986) Law 3/1994, November 3rd, on Protection of Users of Entities, Centers and Social Services in Castile-La Mancha (DOCM 25-11-1994) Law 5/1995, March 23rd, Solidarity in Castile-La Mancha (DOCM 21-4-1995)	Law 8/2000, November 30th, Healthcare Organization in Castile-La Mancha (BOCM 19-12-2000)

early intervention in childhood deficiencies, disabilities or development disorders, or their risk, but the ages vary from 0-6 (Aragon, Asturias, Castile-Leon, Castile-La Mancha, Catalonia, Madrid, Murcia, La Rious) 0-3 (Cantabria, Basque Country, Region of Valencia) or intermediate solutions (0-3 or 0-4 extendable to 6 years) in Andalusia and Galicia. In this context, Decree 54/2003, April 22nd, of the Government of Extremadura is worth highlighting for its uniqueness. This law creates the Extremadura Center for Child Development, which is the Extremadura Public Healthcare System's unit in charge of providing the care required by all children in the Autonomous Region of Extremadura with development disorders or dysfunctions. In this case, the time span covers all ages from 0 to 18 years.

Example of implementation of early childhood intervention

Since 2005 in Andalusia, the Regional Ministry of Health has been in charge of promoting the EI project, with an overall view and integrated approach. But it was not until the summer of 2006, insofar as EI is concerned, that this law started to be developed, and as of today's date, both the structure and organization of the EI service

TABLE 4
NATIONAL AND REGIONAL LEGISLATION ON EARLY INTERVENTION (Cont'd.)

Region	Childhood	Social Service or Equality and Social Welfare	Healthcare
Catalonia	Law 8/1995, July 27th, Care and protection of children and adolescents and modification of Law 37/1991, December 30th, on protective measures for defenseless minors and adoption (DOGC 2-8-95) Law 18/2003, July 4th, Family assistance (DOGC 16-07-03)	Legislative Decree 17/1994, November 16th, approving the fusion of Laws 12/1983, July 14th, 26/1985, December 27th and 4/1994, April 20th on social services and care, (DOGC 13-1-95)	Law 15/1990, July 9th, Organization of Healthcare in Catalonia (DOGC 18-10-95) Law 7/2003, April 25th, on health protection (DOGC 8-05-03)
Extremadura	Law 4/1994, November 10th, on protection and care of minors (DOE 24-11-94)	Law 5/1987, April 23rd, on social services (DOE 12-5-87)	Law 10/2001, June 28th, on health in Extremadura (DOE 3-7-03)
Galicia	Law 3/1997, June 9th, on childhood and adolescence (DOG 20-6-97)	Law 4/1993, April 14th, Social Services (DOG 23-4-93)	
Region of Madrid	Law 6/1995, March 28th, on guarantees of the rights of children and adolescents (BOCM 7-4-95)	Law 11/1984, June 6th, Social Services (BOCM 23-6-84) Law 11/2003, March 27th, Social Services in the Region of Madrid (BOCM 14-4-03)	Law 12/2001, December 21st, Organization of Healthcare in the Region of Madrid (BOCM 26-12-2001)
Murcia	Law 3/1995, of March 21st on childhood in the Region of Murcia, (BORM 12-4-95)	Law 3/2003 April 10th, Social Services Sytem in the Region of Murcia (BORM 2-5-03)	
Navarra		Navarra Law 14/1983, March 30th, on Social Services (BON 8-4-1983)	Navarra Law 10/1990, November 23rd, on health Navarra Law 5/2002, March 21st, modification of Navarra Law 10/1990 November 23rd, on health
Basque Country		Law 5/1996, October 18th on Social Services (BOPV 12-11-96) Law 12/1998, May 22, against social exclusion (BOPV 8-6-98)	Law 8/1997, June 26th, Organization of Healthcare in Euskadi (BOPV 21-7-1997)
La Rioja	Law 4/1998, March 18th, on minors (BOR 24-3-98)	Law 1/2002, March 1st, Social Services (BOR 7-3-02)	Law 4/1991 March 25th, Creation of Rioja Health Service (BOLR 18-4-1991) Law 2/2002, April 17th, on health in La Rioja (BOLR 3-5-02)
Region of Valencia	Law 7/1994, December 5, on childhood (DOGV 16-12-94)	Law 5/1989, July 6th, Social Services in the Region of Valencia (DOGV 12-6-89) Law 5/1997, June 25th regulating social service systems in the Region of Valencia (DOGV 4-7-97) Law 11/2003, April 10th on the Statute of Disabled Persons (DOGV 11-04-03)	Regional Govt. Law 3/2003, February 5th, on Health-care organization in the Region of Valencia (DOGV 14-2-03)

Source: GAT (2005; 2011)

as an economic and budget allotment, with the help and interference of other institutions, are responsibility of the Regional Ministry of Health.

At present, there is no specific legislation regulating EI in the Autonomous Region and the law mentioned above (1/1999, March 31st) which transfers competence for EI to the Regional Ministry of Health (GAT, 2011) continues to be in effect. There is also a decree on EI regulating coordination of the Andalusian Regional Ministries of Health/Education/Equality (Gat, 2011).

The eligible age in Andalusia for receiving EI varies by province and type of funding. By subsidies or agreements, from 0 to 4 years or to 6 years if there are no resources in other areas. The resources for EI in our region are allotted by sector and only cases referred by the government administration are admitted. It is unnecessary to be certified as handicapped for access to them. In Andalusia there are 129 Early Childhood Intervention Centers, 60 Special Education Centers, 799 Special Education Classrooms, 156 Therapeutic Education professionals, 892 Hearing and Language professionals, and 43,292 openings in schools (GAT,2011).

The professional profiles for EI resources are going to depend on the province and the funding model:

- ✔ Concerted agreement: Psychologist, Speech Therapist and Physiotherapist
- ✔ Agreement: Psychologist, Speech Therapist and others (variable depending on the center and the province: Physiotherapist, teacher, educational psychologist, etc.)
- ✔ Subsidies: Depend on the association subsidized, the subsidy order does not require a certain profile.

In the Autonomous Region of Andalusia there are protocols including them. Attention is given the child (individual, group, home care), family (individual and group) and in the educational and social-healthcare settings.

In the integrated care process provided by the Regional Ministry of Health (2006), EI requires adequate deployment of activities directed at primary prevention of developmental impairments (family planning, birth control, childhood vaccinations, prevention of accidents in childhood, etc.); secondary prevention activities (prenatal diagnosis, detection of congenital metabolopathies, early detection of development alert signs in children's health monitoring and in neurodevelopmental monitoring of NB with psychoneurosensorial risk, early detection of congenital hypoacusis, etc.); and the corresponding tertiary prevention (basically through intervention programs). All these activities, defined and developed either as Attention Processes or in the framework of specific programs, must provide EI support.

The EI Process makes special reference to interventions by the healthcare sector that can contribute to reducing the incidence and severity of developmental impairments, whether by avoiding their presentation, slowing their progress, or counteracting their consequences, and taking care that these activities are performed following quality criteria in terms of effectiveness, benefits and satisfaction of the persons affected. All of this must be in continuity of and complementarity to the activities that social services, the education system and other social sectors perform for it.

CONCLUSIONS

As we have observed throughout the article, legislation on EI services in Spain, the main subject we are concerned with, is very recent, and there are even some regions like Andalusia where there is no specific law regulating it at all. Today there are many inequalities among the various autonomous regions in our country, and differences in coordination of centers devoted to this service (healthcare, educational and social services).

Even so, we should point out the huge advance in development of programs directed at children, parents and community in prevention, detection, treatment or information on EI. Progress is especially due to the parents' associations of children affected and to professionals in a variety of areas that were concerned enough to study and intervene in the progress of these actions.

In all the different editions of the White Paper on Early Intervention (GAT, 2000, 2005, 2011), research appears as a need for developing intervention programs, however, even though time has gone by, this idea has not materialized. It is true that development of research in psychology of early childhood intervention would increase knowledge on the characteristics typical of the various disabilities or disorders in development, their repercussions on family dynamics, sources of stress, and to evaluate which types of intervention are the most effective, however, in Spain, research in this area of clinical childhood intervention has yet to be carried out.

For a long time, research in EI has concentrated almost exclusively on showing that any intervention is more effective than none. Today, more than continue insisting on this, it must be shown what specific intervention approaches are the most effective, what concrete aspects of each form of intervention leads some children to achieve better results, what program characteristics are most effective, and what characteristics of the child and the family contribute to achieving the best results. Greater practical involvement in research in the field of EI is in demand; quality research from which direct consequences can be deduced to improve future interventions. In this sense, it should be stressed how important it is to carry out interdisciplinary studies that can be followed up in the medium and long-term development of the child, results of which are reported to services and intervention programs which are the first to care for the child's and/or family's needs, so the real repercussions of those resources and how to promote improvements in the quality of all the services can be evaluated.

Evaluation of an EI program pursues a double purpose: on one hand find out the child's skills and abilities and on the other how the family lives and is organized (Robles-Bello and Sánchez-Teruel, 2011). With this knowledge, better individual treatment programs could be carried out for each child within his family. So in addition to continual evaluation of the child's development, the family also has to be evaluated.

In the USA, an attempt has been made to respond to the challenge of evaluation in EI and to document its effectiveness at the same time it fights against inadequate measures used and the inevitable wear on the sample, limited funds to sustain this type of long-range evaluation, longitudinal studies and the ethical barriers to maintaining untreated control groups of children with documented problems (Meisels and Shonkoff, 2000).

Historically, EI professionals have used curricular guidelines that describe skills or development hierarchies, so that elements of those hierarchies can be used for both evaluation and intervention. This approach to development represents one of the main axes in monitoring the progress of children who receive EI, so a child's progress can be evaluated. The intervention program can also be established following such progress. McConnell (2000) believes that if evaluation is collecting and analyzing information for decision-making, better collection and analytical tools have to be provided to assist in making better decisions contributing directly to better results with young children in EI.

Simeonsson, Cooper and Scheiner (1982) found that 93% of their studies, done on subjective bases, defended the efficacy of EI programs. However Guralnick (1977), found methodological and ethical problems in demonstrating empirical evidence that since the eighties have been observed to be unavoidable, and which we corroborate as being difficult to overcome at present. We refer, for example, to the ethical problem of not including a control group in the studies (Robles-Bello and Sánchez-Teruel, 2011).

Nevertheless, it should be kept in mind that not all these studies have followed a truly experimental design (Candel, 2000). For example, of the 57 studies on EI programs, only 5% used a real experimental design. This necessarily leads us to be more prudent about exaggerating the benefits of EI, since the methodological limitations reduce the reliability of the data provided.

Some analyses show that intensive overall intervention which begins very early seems to be more effective (Blair and Ramey, 1997). The results of other studies (Ramey and Ramey, 1998) conclude that children in the experimental groups scored higher in intellectual development and academic performance than the children in the control groups, and that these benefits were maintained in the long term.

García-Sánchez (2002) considers research in EI programs important. Evaluation in these programs is essential to find out what is being achieved and what is not in each case and be able to take action based on the results, thereby offering a better quality service. Concerning EI evaluation programs in Spain, the GAT, in its 2011 report, found how EI works in terms of the number of early intervention childhood development centers professionals working in it, children attended, referral and type of subsidy, so they really have not checked the effectiveness of care under the EI program. This report shows the wide differences in EI in Spain: four autonomous regions have no regulations on EI at all; there is no consensus on the age of intervention, although reference is from 0 to 6 years, the children tend to be accepted when they begin school, that is at three years. In three communities a child must still be certified as

disabled to be attended, so children at risk are not included and neither are primary or secondary prevention. There are differences in function depending on whether the centers are contracted or by agreement, and there are even interventions which still do not receive government subsidies, contrary to the proposals in the White Paper on universality and free treatment. Case admission at the centers is not independent, making the process longer for children and families, there are no centers with professionals in the various disciplines necessary for intervention, and neither is there a consensus on how intervention should be done.

And in spite of all the differences among the various regions, progress in EI in recent years is obvious, although work must continue to modify the parts that need to be improved and criteria could be more unified.

Knowing how little research has been done on evaluation of EI intervention programs, it would be of huge importance to really know their effectiveness based on the progress made in development of the children who are intervened.

The implementation of specific programs and research seem to be advancing by giant steps. In fact, it is expected that in the future its economic allocation will be sufficient to continue perfecting it and for the needs of all the families to be taken care of in a coordinated and sustainable manner.

The challenge of coordinating the different agents involved in treatment by EI, and coordinating the different governments involved in their performance still remains.

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