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Autism: Early Childhood Education as an Intervention Scenario

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Abstract: In the last decades, the effectiveness of early intervention programs for children with autism has been vastly investigated. The importance of early and intensive care for this population is grounded in principles of neuroplasticity and developmental theories. The scientific literature warrants the need for including children, before five years of age, in early intervention programs, for a minimum of 25 hours per week. In this case, early childhood education settings and preschools become highly promising educational scenarios for implementing intervention. In addition to working with children (birth-5) in full or part-time schedules, these educational programs focus on the integral development of the child, including physical, psychological, intellectual, and social aspects. The purpose of the current article is to describe the principles of early intervention, with an emphasis on *best practices* directed to people with autism. Additionally, the relevance of this type of intervention in the context of early childhood education settings in Brazil is further discussed.

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Autismo: la educación de la primera infancia como un escenario de intervención

En las últimas décadas, la eficacia de los programas de intervención para autistas en la primera infancia, ha sido un objeto ampliamente investigado. Las bases teóricas de la neuroplasticidad y del desarrollo enfatizan la importancia de intervenir precozmente con esta población. En esta perspectiva, estudios indican la necesidad de incluir niños antes de los cinco años de edad, en programas de intervención con carga horaria mínima de 25 horas por semana. La Educación preescolar es un segmento educacional altamente promisor en la implementación de prácticas interventoras para esta población. Además de atender alumnos de 0 a 5 años de edad, en periodo integral o parcial, la educación infantil asume como meta promover o desarrollo integral del educando, contemplando aspectos físicos, psicológicos, cognitivos y sociales. El presente artículo tiene como objetivo describir los fundamentos de la intervención precoz, con foco en las mejores prácticas interventoras, direccionadas para poblaciones con autismo. Como complemento, se discutirá la relevancia de esta modalidad de atendimento en el contexto Nacional de la Educación infantil.

Palabras-clave: autismo; educación infantil; intervención temprana

Resumo: Nas últimas décadas, a eficácia dos programas de intervenção, em autistas, na primeira infância, se constitui objeto de pesquisa amplamente investigado. Os pressupostos teóricos da neuroplasticidade e abordagens desenvolvimentistas são factuais quanto à importância do tratamento precoce e intensivo para essa população. Nessa perspectiva, estudos indicam a necessidade de serem incluídas crianças, antes dos cinco anos de idade, em programas de intervenção com carga-horária de, no mínimo, 25 horas semanais. No caso, o ensino infantil é um segmento educacional altamente promissor, na implementação de práticas interventivas focadas nesse contingente infantil. Além de atender alunos de 0 a 5 anos, em regime de horário integral ou parcial, o ensino infantil tem como propósito promover o desenvolvimento integral do educando, contemplando aspectos físicos, psicológicos, intelectuais e sociais. O presente artigo tem como objetivo descrever os fundamentos da intervenção precoce, com ênfase nas *melhores práticas* interventivas, direccionadas para populações com autismo. Como complemento, discute-se a relevância dessa modalidade de atendimento no contexto nacional da educação infantil.

Palavras-chave: autismo; educação infantil; intervenção precoce.

Introduction

In the last few decades there have been significant discussions about autism, both in academic and in social media. Scientific studies, ranging from etiological factors to the education of students with this diagnosis, are conducted in different areas of expertise (Schmidt, 2013; Schwartzman & Araújo, 2011). The recent publication of books and production of films and soap operas addressing this issue are other examples of how this theme has gained visibility in recent years. This phenomenon has increased our society's awareness about the unique characteristics of this syndrome, particularly in relation to aspects of early identification and intervention (Johnson & Myers, 2007; Konst & Matson, 2013).

In the most recent classification of the Diagnostic and Statistical Manual of Mental Disorders, the DSM-V (APA, 2013), Autism Spectrum Disorder (ASD) is described as a neurodevelopmental disability characterized by impaired socio-communication deficits and restricted patterns of behaviors. The Center for Disease Control and Prevention estimates that 1 in 88

individuals have ASD (Brasil, 2013), which supports the claim that autism has become one of the most common developmental disorders today (Fombonne, 2009). In South America, the only published study to date was conducted in Atibaia (SP), indicating an incidence rate of 1 person in 330 affected by the disorder (Paula et al., 2011). Presently, there is no cure for ASD. Symptoms may, however, be minimized by means of psychoeducational intervention programs (Matson & Konst, 2013; National Research Council, NRC, 2001). The research literature indicates that interventional practices conducted with preschool children (under 5 years of age) tend to be more effective than programs involving older individuals (Matson & Konst, 2013; NRC, 2001). Additionally, some studies suggest that, regardless of the approach, treatment should be intensive, lasting in average 25-40 hours per week (Matson & Konst, 2013; NRC, 2001). In this scenario, early childhood education programs can be regarded as appropriate settings for conducting psychoeducational interventions. Other than serving children from birth to five years of age, these programs provide from 20 to 35 weekly hours of services.

Early Intervention: A Brief History

Early intervention is defined as a coordinated set of services that aim at promoting the development of children from birth to five years of age. The stimulation of skills, the remediation or minimization of deficits, and family empowerment are some of the goals of these services (Byington & Whitby, 2011). The early intervention model is based on the idea that children with disabilities and other special needs differ somehow from those with typical development (Mendes, 2010; Nunes, 1995). These individual differences demand interdisciplinary treatment services.

Early Childhood Intervention (ECI)- originally called Early Stimulation- gained greater visibility in the early 1960s. According to Love and collaborators (2008), in 1965, the United States government created Head Start, an early intervention program that aimed at assisting children who came from backgrounds where funds, parenting, and health were deficient. Initially, the program had a clear medical and compensatory perspective offering support in multiple areas, including social, education, and health. Despite the success in addressing the children's needs, the families were not considered as focus of the intervention services provided (Sandall et al., 2000, 2005).

In Brazil, ECI programs gained notoriety in the 1970s and 1980s. Within a medical perspective, these programs were linked to hospitals, health services, and specialized institutions for people with disabilities (Benevides & Cunha, 2012). Like the American model, the first ECI services in Brazil were compensatory in nature and essentially child-centered (as opposed to family-centered). The goals outlined by these programs included the prevention of secondary disabilities and child rehabilitation.

International studies published in the 1990s indicated the benefits in changing the focus of ECI programs from child- to family-centered (Bolsanello, 2003; Byington & Whitby, 2011). More active family involvement, including the focus on developing parent skills began to be considered. With these changes, the term "early stimulation" was substituted for "early intervention" (Almeida, 2004).

In a new scenario, ECI programs became a set of intervention services offered not only to children, but also to their families. Some of the objectives included: (a) the provision of support for the temporary or permanent needs of children at risk or those with developmental disorders (Soejima & Bolsanello, 2012); (b) the integration of the child into family, school, and other social environments (Soejima & Bolsanello, 2012); and (c) making the families more autonomous, enabling them to manage their own resources, as consumers and active participants of the program (Almeida, 2004).

Within an Ecosystem perspective, disseminated by Bronfenbrenner (2005), ECI programs began emphasizing the implementation of appropriate intervention practices, considering the child's developmental level and strengths, as well as the use of natural environments as intervention scenarios. This model finds its roots in the idea that children's participation in the course of daily activities and interactions with people are meaningful and have a great impact in their lives (Bronfenbrenner, 2005). This perspective includes the constellations of family, peers, school, and community as spheres of influence on children (Gable, 2006). This model posits that development is a phenomenon of continuity and change in the biopsychological characteristics of human beings (Bronfenbrenner, 2005). The new ECI model, therefore, advocates for using a developmental and functional curriculum in natural learning milieu. In this sense, Briker (2001) and Dunst and Bruder (2002) suggest that intervention take place in the home, the community, and any other settings where same age, typically developing peers interact.

In accordance with this perspective, the United States and Europe redefined their guidelines concerning the educational practices implemented with children from birth to five years of age (Soejima & Bolsanello, 2012). In the United States, for example, the section on Early Intervention of the Council for Exceptional Children published, in 2000, a set of specific guidelines for families and professionals working with children with disabilities (Sandall, McLean, & Smith, 2000). Grounded on scientific evidence, this document highlights the importance of using interdisciplinary assessment and intervention models that focus on the demands of the child and his/her family.

The interdisciplinary assessment is essential for detecting the target and context of intervention. Practices focused on the demands of the child relate to how, where, and when intervention occurs. Additionally, these same practices determine how the child's performance will be monitored. This is a key element to define whether interventional practices will be maintained or modified, as well as if new demands are detected.

The focus on the family refers to the provision of resources and supports required by careproviders, so they have the time, the energy, the knowledge, and the skills required to facilitate learning opportunities essential for child development (Sandall, McLean, & Smith, 2000). Interestingly, the family support movement gave rise to the term empowerment (Williams & Aiello, 2001), which relates to the concept of capacity building/ strengthening the family as an active participant in the intervention process. The family is empowered when success is primarily achieved through the efforts of its members.

As in the United States, changes in ECI programs were also observed in several European countries. In fact, the ECI programs of 26 European countries analyzed, from 2005-2010, indicated the child, their family, and their environment as intervention targets. This suggests a change in the conception of ECI in the field of special education, especially a shift from a "medical" to a more "social" model (European Agency for Development in Special Needs Education, 2010).

Despite the research findings highlighting the importance of adopting family-centered practices, few studies conducted in Brazil follow this model (Bolsanello, 2003). As pointed out by Williams and Aiello (2001), the limited number of investigations concerning ECI is available in unpublished national theses and dissertations. In these manuscripts, parental involvement is limited to sharing information about their children or describing what they think about the services provided. In the same token, the participation of early childhood intervention agents in school settings is scarce in Brazil (Pereira & Record, 2012). In fact, very few studies are conducted in natural educational contexts, involving teachers and other careproviders as intervention agents (Dall'Aqua, Takiuchi, & Zorzi, 2008; Nunes et al., 2013).

Best Practices in ECI Programs for Children with Autism

In terms of theoretical approaches, ECI programs for children with autism can be inserted into a continuum, ranging from a developmental paradigm to a more behavioral approach (NRC, 2001). A brief explanation of each model will be provided next.

In the developmental approach, the peculiarities and deviant characteristics of the child with autism are analyzed, taking into perspective the typical development without a deterministic viewpoint (Lampreia, 2007). According to Greenspan and Wieder (1997), this approach assumes that autistic symptomatology has a biological nature and is caused by difficulties in processing information. Thus, impairments in sensory modulation or the child's lack of motor coordination could impact learning and the quality of social-affective interactions.

Treatment programs inspired in this approach aim at helping children restore affective contacts by overcoming their sensory difficulties. The development of socio-communicative skills is, typically, the focus of intervention. Proponents of this approach assume that individual development and learning are complex and dynamic processes that occur within a social context (Lampreia, 2007). In this perspective, intervention should take place in natural environments, involving parents, teachers, or other individuals that are close to the child.

The Denver Model and the Developmental, Individual-Difference, Relationship-based Model (DIR) are two programs inspired in the developmental paradigm (Lampreia, 2007; NRC, 2001; Simpson, 2005). The first, originated in 1981 at the University of Colorado (USA), posits that play is an essential vehicle for learning social, emotional, communication, and cognitive skills. The program also aims at: (a) increasing the child's cognitive levels, particularly in the area of symbolic functions; (b) expanding communication through gestures, signs, and words; and (c) enhancing social and emotional growth through interpersonal relationships with adults and peers (NRC, 2001). In recent decades, many studies have been published evidencing the promising effects of this model in children with autism, who were between 12 and 48 months of age (Dawson et al., 2010; NRC, 2001; Rogers et al., 2012; Vismara, Colombi, & Rogers, 2009).

The second model (DIR), developed by Stanley Greenspan in the 1990s, advocates that children's learning is made possible through intrinsic factors such as motivation, the desire to explore the environment, and the social-affective interactions, conducted in natural contexts with caregivers (Thompson, 2011). Through child-directed play interactions, this model aims at helping the individual restore the sequence of development that was disrupted (Simpson, 2005; Lamprey, 2007). An essential element of this program is *floortime*, considered to be a treatment and a philosophy.

As an intervention practice, *floortime*, which can be applied in family, school, or clinical settings, alludes to the idea that play and learning activities should take place "on the ground". Although studies that evaluate the effectiveness of this model are incipient, the few investigations conducted in the area reveal promising results (Mahony & Perales, 2003; Pajareya & Nopmaneejumrulers, 2011; Simpson, 2005).

The theoretical assumptions of Watson and Skinner are the roots for intervention models anchored in the behavioral paradigm (Simpson, 2005). In this approach, maladaptive behaviors are not interpreted as symptoms of a disorder, but as events that can be modified. Therefore, the purpose of intervention is to identify the functional relationships between antecedent environmental events and the organism's responses or consequences. To identify these relationships, the time when the response occurs, the response itself, and the reinforcing consequences must be analyzed (Prizant

& Meyer, 2003). Different from the developmental approach, behavioral interventions typically occur in more structured environments.

The Learning Experience: An Alternative Program for Preschoolers and Parents (LEAP) is an example of an intervention approach inspired in the behavioral model. This program was created in 1982 at the University of Colorado. It is considered an educational program for preschoolers and an intervention model for parents. It is important to highlight that LEAP was one of the first American programs to defend the inclusion of children with autism in regular school settings. In fact, in the schools, the mediation conducted by typically developing peers is one of the critical points of LEAP. The curriculum developed in LEAP is individualized. The primary goals include the development of socio-communicative skills and other behaviors that foster independence of preschool aged children (Simpson, 2005). Family involvement is essential. Thus, in parallel to the school program, parents are taught to employ teaching strategies and behavior management procedures with children in the home setting.

The field of special education has produced a large number of studies evidencing the effectiveness of LEAP in children with autism (see Simpson, 2005 for review). The results include the reduction of inappropriate behaviors, improved interaction with peers, and greater cognitive and language development (Simpson, 2005; Strain & Hoyson, 2000; Strain & Bovey, 2011).

There is no single approach that can be applied to all children with ASD, as suggests the research literature (Thompson, 2011). There are, however, among these programs universal elements considered as best practices. The concept of best practice is derived from the field of management and refers to methods or techniques that have consistently evidenced results superior to those achieved with other means. Best practices can also be understood as the use of methods of conducting a practice, leading to unarguable superior results (Davies & Kochar, 2002). In special education, best practices constitute modalities of interventions that are more effective and efficient, ensuring optimal student performance (Spaulding, 2009).

Best practices principles in ECI for children with ASD indicate that treatment should: a) be offered to young children (0-5 years of age) who are at risk of delay or deviation in their development (Lampreia, 2007; NRC, 2001); b) be individualized, considering the individual's profile (NRC, 2001; Thompson, 2011); c) focus on the development of five areas: attention, imitation, expressive and receptive language, play, and social interaction (Dawson & Osterling, 1998; NRC 2001); d) consider family stress, offering the necessary social, clinical, and therapeutic support (Guralnick, 1998); e) involve parents as partners and active intervention agents in intensive programs (20-40h weekly) (Girolametto et al., 2006; Greenspan & Wieder, 1999; Guralnick, 1998; Sussman, 1999; McConachie et al., 2005; NRC, 2001).

Preschool Education as a Context of ECI Programs

Throughout history, treatment and education of children with disabilities, under five years of age, were offered separately from those services for children with typical development (Mendes, 2010). At present, inspired in the paradigm of Inclusion it is recommended that ECI programs be conducted in inclusive Early Childhood Education settings, as preschools. As discussed by Nunes (1995), the preschool is, par excellence, a setting for developing primary preventive actions, including the implementation of educational programs for children who are at risk of developing disabilities.

The first Brazilian preschools were created in the late nineteenth century, with the purpose of meeting the needs of single mothers, who were abandoned or widowed, and were unable to take care of their children (Mariotto, 2003; Oliveira, 1988; Pacheco & Dupret, 2004). These institutions,

which were primarily philanthropic in nature and adopted a medical/hygienist intervention model, aimed at nurturing children, caring for their health and disseminating strict hygiene standards to their families. Poverty was associated with lack of childcare knowledge (Andrade, 2010, p. 137).

In the 1920s and 1930s, with the growth of Brazilian industrialization and the significant inclusion of women in the labor market, more active governmental participation was observed in the foundation and maintenance of these institutions. The latter two decades were marked by the development of governmental programs that prioritized food and hygiene to working women and their children (Andrade, 2010; Mariotto, 2003; Oliveira, 1988; Pacheco & Dupret, 2004).

The medical/hygienist model was replaced by the paradigm of “compensation” in the 1960s. Influenced by the theoretical assumptions of Bowlby’s maternal deprivation, the preschool became a milieu for compensating the precarious environment in which families of the working classes lived (Andrade, 2010; Mariotto, 2003; Oliveira, 1988; Pacheco & Dupret, 2004). In other words, these settings, which served primarily low-income children, became a locus for minimizing the biopsychological deficits in relation to middle class children (Mendes, 2010).

It was only in the late 1980s and 90s that the treatment of children from birth to six years became linked to the education system and guaranteed by law. In this scenario, the 1988 Brazilian Constitution asserted that preschools include not only caretaking services for youngsters, but also educational intervention. The National Guidelines for Education (*Lei e Diretrizes e Bases da Educação Nacional - LDB/9.394*), published in 1996, defined the preschool as the first stage of basic education, responsible for complementing family and community practices. Although child enrollment in preschool programs is not mandatory, this level of education is important for physical, psychological, intellectual and social development (Alves; Andrade, 2010; Verissimo, 2007).

The National Curriculum Standards for Early Childhood Education in Brazil state that the purpose of preschool education is to ensure the best opportunities for the development of all children, including those with special needs (Brasil, 2000). Additionally, as stated in the National Policy on Early Childhood Education, children with disabilities should be educated alongside their typically developing peers (Brasil, 2006). From this perspective, it becomes important to develop intervention programs, such as ECI, in typical preschool settings.

Given the recency of the Inclusive Education model and the new conception of preschool, as an educational entity, there is understandable resistance to this proposal. In a study conducted by Nunes (1996), for example, staff members from a public crèche in the city of Rio de Janeiro declared they were unable to accommodate children with disabilities, since they lacked professional training. Additionally, some verbalized that children should be cared for in clinics and that the preschool was not a “hospital”.

It is important to argue, however, that the objectives of ECI and preschools converge. That is, both aim at promoting the overall development of the child (Soejina & Bonsanello 2012). The same knowledge and skills outlined by the National Curriculum Standards (Brasil, 1998) for typically developing students are essential for those who present special needs (Pereira & Record, 2012). In this respect, preschool educators should be qualified to meet the demands of children with disabilities, including those with autism.

Nunes (1995) stresses the importance of creating specific ECI programs in preschools. For this proposal to be launched, significant political and educational changes in early childhood education are needed in the country. First, the presence of children with disabilities in preschools is insignificant, accounting for only 1% of enrollment in this level of education (Meletti & Bueno, 2011). Additionally, although advocated by law, the provision of special education services is still scarce for these individuals (Pereira & Matsukura, 2013). At last, the presence of early intervention agents in the preschool settings is limited (Nunes et al., 2013; Pereira & Record, 2012).

Teacher competencies required to work with populations with special needs in ECI programs is unclear. In Brazil, the government does not provide Early Intervention Services for children with autism, although the Ministry of Health recognizes its importance (Brazil, 2013, p.20). Finally, there is a scarce number of national studies that evaluate the effectiveness of inclusion of children with disabilities in early childhood education settings (Mendes, 2010; Pereira & Matsukura, 2013), particularly those with a diagnosis of autism (Nunes et al., 2013.).

Conclusion

The current article presented the fundamentals of Early Childhood Intervention (ECI), highlighting the best interventional practices for students with autism. Considering the current educational policy inspired by the Paradigm of Inclusion, arguments about conducting ECI programs in regular preschools settings were presented.

Significant changes in the conceptions of ECI programs have occurred in recent decades. In this respect, the focus on a medical model, based on the child's inabilities, was gradually and apparently replaced by a more social intervention approach, addressing the family and the child's natural environments. Family empowerment, the emphasis on the child's strengths and the use of natural contexts such as homes and schools as intervention scenarios are basic characteristics of this new model. Despite the promising results of this approach evidenced in international studies, in Brazil ECI primarily follows a medical model, with intervention practices conducted by therapists in clinical settings (30-40 minutes once a week). This structure tends to minimize family participation.

The literature suggests that intervention practices for people with autism are more effective if they are intensive in nature (between 25-40 hours per week) and implemented in natural situations, with a young child. In this context, the regular preschool seems as an adequate setting for conducting intervention since it accommodates infants and toddlers for extensive periods of time (4-7 hours daily). As previously discussed, significant political and educational changes are, however, demanded in our country in order for this practice to be operationalized.

References

- Almeida, I. C. (2004). Intervenção precoce: Focada na criança ou centrada na família e na comunidade. *Revista Análise Psicológica*, 22(1), 65-72.
- Alves, R. C. P., & Veríssimo, M. de La Ó. (2007). Os educadores de creche e o conflito entre cuidar e educar. *Revista Brasileira de Crescimento e Desenvolvimento Humano*, 17(1), 13-25.
- American Psychiatric Association APA. (2013). DSM-V, *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC.
- Andrade, L. B. P. (2010). *Educação infantil: discurso, legislação e práticas institucionais* São Paulo: Editora UNESP.
- Bolsanello, M. A. (2003). Concepções sobre os procedimentos de intervenção e avaliação de profissionais em estimulação precoce. *Educar em Revista*, 22, 343-355.
- Brasil. (1998). *Referencial curricular nacional para a educação infantil*. V. 1, 2, e 3. Ministério da Educação. Brasília.
- Brasil. (2000). *Referencial curricular nacional para a educação infantil: estratégias e Orientações para a educação de crianças com necessidades educacionais especiais*. Ministério da Educação. Brasília.

- Brasil. (2006). *Política Nacional de Educação Infantil: pelo direito das crianças de zero a seis anos à educação*. Ministério da Educação. Brasília.
- Brasil. (2013). *Diretrizes de Atenção à Reabilitação da Pessoa com Transtornos do Espectro do Autismo*. Secretaria de Atenção à Saúde, Série F. Comunicação e Educação em Saúde. 74, p. : il. Brasília.
- Briker, D. (2001). The natural environment: A useful construct? *Infants and Young Children*, 13(4), 21-31. <http://dx.doi.org/10.1097/00001163-200113040-00008>
- Bronfenbrenner, U. (Ed.). (2005). *Making human beings human: Bioecological perspectives on human development*. Sage Publications. California.
- Bueno, J. G., & Meletti, S. M. F. (2011). Educação Infantil e Educação Especial: uma análise dos indicadores educacionais brasileiros. *Revista Contraponto – Eletrônica*, 11(3), 278-287.
- Byington, T., & Whitby, P. (2011). Empowering families during the early intervention planning process. *Young Exceptional Children*, 14, 44-56. <http://dx.doi.org/10.1177/1096250611428878>
- Cunha, A. B. C., & Benevides, J. (2012). Prática do psicólogo em intervenção precoce na saúde materno-infantil. *Psicologia em Estudo*, 17, 111-119. Maringá. <http://dx.doi.org/10.1590/S1413-73722012000100013>
- Dall' Aqua, M. F., Takiuchi, N., & Zorzi, J. L. (2008). Efetividade de um treinamento de professores de uma escola de educação especial usando os princípios dos métodos Hanen e V.O.E.: veja, ouça e espere. *Revista CEFAC*, 10(4). 433-442.
- Davies, A. J., & Kochhar, A. K. (2002). Manufacturing best practice and performance studies: a critique *International Journal of Operations & Production Management*, 22(3), 289-305. <http://dx.doi.org/10.1108/01443570210417597>
- Dawson G., & Osterling J. (1998). Early intervention in autism. In: M. Guralnick (Ed). *The Effectiveness of Early Intervention* (pp. 307–326): Baltimore: Brookes.
- Dawson G., Rogers, S., Munson, J., Smith, M., Winter, J., Greenon, J., ... Varley, J. (2010). Randomized controlled trial of the Early Start Denver Model: A developmental behavioral intervention for toddlers with autism: Effects on IQ, adaptive behavior, and autism diagnosis. *Journal Pediatrics*. 125(1), 17-23. <http://dx.doi.org/10.1542/peds.2009-0958>
- Dunst, C., & Bruder, M. B. (2002). Valued outcomes of service coordination, early intervention and natural environments. *Exceptional Children*, 68(3), 361-375. <http://dx.doi.org/10.1177/001440290206800305>
- European Agency for Development in Special Needs Education. (2010). *Intervenção Precoce na Infância: Progressos e desenvolvimentos 2005-2010*. Disponível em www.european-agency.org, acesso em 11.04.2013
- Fombonne E. (2009). Epidemiology of pervasive developmental disorders. *Pediatric Research* Volume 65: 591-598. <http://dx.doi.org/10.1203/PDR.0b013e31819e7203>
- Gable A. (2006). Influencing the life trajectories of children with Asperger's Syndrome. *International Journal of Disability, Development and Education*, 53(1), 129–134. <http://dx.doi.org/10.1080/10349120500510131>

- Girolametto, L., Sussman, F., & Weitzman, E. (2006). Using case study methods to investigate the effects of interactive interventions for children with autism spectrum disorders. *Journal of Communication Disorders*, 40, 470-492. <http://dx.doi.org/10.1016/j.jcomdis.2006.11.001>
- Greenspan, S. I., & Wieder, S. (1998). *The child with special needs: Intellectual and emotional growth*. Reading, MA: Addison Wesley Longman.
- Guralnick, M. J. (1998) Effectiveness of early intervention for vulnerable children: A developmental perspective. *American Journal on Mental Retardation*, 102, 319-345. [http://dx.doi.org/10.1352/0895-8017\(1998\)102<0319:EOEIFV>2.0.CO;2](http://dx.doi.org/10.1352/0895-8017(1998)102<0319:EOEIFV>2.0.CO;2)
- Johnson C. P., & Myers S. M. (2007). American Academy of Pediatrics, Council on Children With Disabilities. Identification and evaluation of children with autism spectrum disorders. *Journal of Pediatrics*. 120(5), 1183–1215.
- Lampreia, C. (2007). A perspectiva desenvolvimentista para a intervenção precoce no autismo. *Estudos de Psicologia*, 24(1), 105-114. <http://dx.doi.org/10.1590/S0103-166X2007000100012>
- Love, J., Tarullo, L., Raikes, H., & Chazan-Cohen R. (2008) Head Start: What do we need to know? In K. McCartney, & D. Phillips (eds.) *Blackwell handbook of early childhood development* (pp. 550-584). Malden: Blackwell Publishing.
- Mahony G., & Perales F. (2003). Using relationship-focused intervention to enhance the social-emotional functioning of young children with autism spectrum disorders. *Topics Early Child Spec Educ* 2003, 23, 77-89.
- Mariotto, R. M. M. (2003). Atender cuidar e prevenir: A creche, a educação e a psicanálise. *Estilos da Clínica*, 8(15), 34-47.
- Matson, J. L., & Konst, M. J. (2013). What is the evidence for long term effects of early autism interventions? *Research in Autism Spectrum Disorders*, (7), 475-479. <http://dx.doi.org/10.1016/j.rasd.2012.11.005>
- Mc Conachie, H., Randle, V., Hammal, D., & Le Couteur, A. (2005). A controlled trial of a training course for parents of children with suspected autism spectrum disorder. *Journal of Pediatrics*, 147, 335-340. <http://dx.doi.org/10.1016/j.jpeds.2005.03.056>
- Mendes, E. G. (2010). *Inclusão marco zero: começando pelas creches*. Araraquara, SP: Junqueira & Marin.
- National Research Council. (2001). *Educating Children with Autism*. Committee on Educational Interventions for Children with Autism. Catherine Lord and James P. McGee, eds. Division of Behavioral and Social Sciences and Education. Washington.
- Nunes, D. R. P., Azevedo, M. Q. O., & Schmidt, C. (2013). Inclusão Educacional de pessoas com autismo no Brasil: uma revisão da literatura. *Revista Educação Especial*, 26, 557-572. <http://dx.doi.org/10.5902/1984686X10178>
- Nunes, L. R. (1995). Educação precoce para bebês de risco. In: B. Range (Org.). *Psicoterapia comportamental e cognitiva* (pp. 121-132). Campinas: Psy.
- Nunes, L. R. (1996). Atendimento à criança carente e à criança de risco: análise do relato verbal de coordenadores e recreadores de creche. Em L .R. Nunes (Org.) *Prevenção e intervenção em Educação Especial* (p.56-79.). Rio de Janeiro: Associação Nacional de Pesquisa e Pós-Graduação em Psicologia.
- Oliveira, Z. M. R. (1988). As creches no Brasil: mapeamento de uma trajetória. *Revista Faculdade de Educação*, 14(1), 43-52.

- Pacheco, A. L. P. de B., & Dupret, L. (2004). Creche: Desenvolvimento ou sobrevivência? *Psicologia USP*, 15(3), 103-116. <http://dx.doi.org/10.1590/S0103-65642004000200006>
- Pajareya, K., & Nopmaneejumrulers, K. (2011). A pilot randomized controlled trial of DIR/Floortime™ parent training intervention for pre-school children with autistic spectrum disorders. *Autism*, 15(5), 563-577. <http://dx.doi.org/10.1177/1362361310386502>
- Paula, C. S. R., Sabrina H., Fombonne, E., & Mercadante, M. T. (2011). Brief Report: Prevalence of Pervasive Developmental Disorder in Brazil: A Pilot study. *Journal of Autism and Developmental Disorders*, 41, 1738-1742. <http://dx.doi.org/10.1007/s10803-011-1200-6>
- Pereira, L.C., & Grave, M. (2012). Encaminhamento de crianças com necessidades educacionais especiais em idade de estimulação precoce a escolas de Educação Infantil de um município de médio porte do Vale dos Sinos. *Revista Educação Especial*, 25(42), 101-114.
- Pereira, P., & Matsukura, T. (2013). Inclusão escolar e educação infantil: um estudo de caso. *Revista Educação Especial*. 26(45), 125-144.
- Prizant, B., & Meyer, E. (1993). Socioemotional aspects of language and social-communication disorders in young children. *American Journal of Speech-Language Pathology*, 2, 56–71. <http://dx.doi.org/10.1044/1058-0360.0203.56>
- Rogers, S. J., Estes, A., Lord C., Vismara, L. A., Winter, J., Fitzpatrick, A., ... Dawson, G. (2012). Effects of a brief Early Start Denver Model (ESDM)–Based Parent Intervention on toddlers at risk for Autism Spectrum Disorders: A randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*. 51(10), 1052–1065. <http://dx.doi.org/10.1016/j.jaac.2012.08.003>
- Sandall, S., Hemmeter, M., Smith, B., & McLean, M. (2005). *DEC recommended practices: A comprehensive guide*. Denver: Division of Early Childhood for Exceptional Children.
- Sandall, S., McLean, M., & Smith, B. (2000). *DEC recommended practices in early intervention: Early childhood special education*. Denver: Division of Early Childhood for Exceptional Children.
- Schmidt, C. (Org.) (2013). *Autismo, educação e transdisciplinaridade*. São Paulo: Editora Papirus.
- Schwartzman, J. S. & Araújo, C. A. (Org.) (2011). *Transtornos do Espectro do Autismo*. São Paulo: Memnon Edições Científicas.
- Simpson, R., et al. (2005). *Autism Spectrum Disorders: Interventions and treatments for children and youth*. Thousand Oaks, CA: Corwin Press.
- Soejima, C. S., & Bolsanello, M. A. (2012). Programa de intervenção e atenção precoce com bebês na educação infantil. *Educar em Revista*, 43, 65-79. <http://dx.doi.org/10.1590/S0104-40602012000100006>
- Spaulding, L. S. (2009). Best practices and interventions in special education: How do we know what works? *Teaching Exceptional Children Plus*, 5(3), 1-13.
- Strain, P. S., & Hoyson, M. (2000). On the need for longitudinal, intensive social skill intervention: LEAP follow-up outcomes for children with autism as a case-in-point. *Topics in Early Childhood Special Education*, 20,116-122. <http://dx.doi.org/10.1177/027112140002000207>
- Strain, P. S., & Bovey II, E. H. (2011). Randomized, controlled trial of the leap model of early intervention for young children with autism spectrum disorders. *Topics in Early Childhood Special Education*, 31(3), 133-154. <http://dx.doi.org/10.1177/0271121411408740>

Sussman, F. (2004). *More Than Words*. Hanen Centre, Toronto, Canadá.

Thompson, T. (2011). *Individualized autism intervention for young children: Blending discrete trial and naturalistic strategies*. Baltimore, MD: Paul H. Brookes.

Vismara L. A., Colombi C., & Rogers S. J. (2009) Can 1 hour per week of therapy lead to lasting changes in young children with autism? *Autism*. 13(1), 93–115.

<http://dx.doi.org/10.1177/1362361307098516>

Williams, L. C. A., & Aiello, A. L. R. (2001). *O inventário portage operacionalizado: Intervenção com famílias*. São Paulo: Memnon.

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