Brazil has more than 200 million inhabitants living in an area of more than 8.5 million km² (Ministério da Saúde, Brasil, 2013a,b). The population distribution is uneven; in the southeast region, there are 86.3 inhabitants per km², whereas in the northern region, there are only 4 inhabitants per km². Granting access to health and educational services for populations in such different environments clearly demands different actions and resources.

Some of the strategies created to provide services to persons with different needs living in different environments are outlined. Specifically in what refers to persons with ASD, there are laws, bills of rights, and guidelines, but their implementation is gradual and uneven. More developed regions provide more comprehensive support to these persons and their families, but some initiatives of outreach are being implemented. Speech–language pathology services are integrated to the health system and present their own challenges. Undergraduate programs for speech–language pathology include ASD as part of the mandatory training, and there are postgraduate studies in the field. Some challenges are being met by several initiatives by different groups as parents, scientific associations, and universities. Issues such as tests and protocols that can be used to Portuguese-speaking children and the identification of efficient methods that can be applied in different situations and orientation to parents and families have been object of research for some decades. There are still many challenges that must be addressed to provide adequate health and educational services to children with ASD and their families in Brazil. 

**Key words:** autistic disorder, child language, language and bearing sciences, public policies, speech, Unified Health System

Brazil has more than 200 million inhabitants living in an area of more than 8.5 million km² (Ministério da Saúde, Brasil, 2013a,b). The population distribution is uneven; in the southeast region, there are 86.3 inhabitants per km², whereas in the northern region, there are only 4 inhabitants per km². Granting access to health and educational services for populations in such different environments clearly demands different actions and resources.

Speech–language pathology and audiology (called Fonoaudiologia in all of South America) are part of the health system in Brazil. Differently from what happens in some countries, there are no speech–language pathology or audiology services in regular schools. Before focusing on services for children with autism spectrum disorders (ASDs), we present a general overview of the Brazilian health system and the legal rights of people with disabilities. Then, we discuss the delivery...
of speech–language pathology services to children with ASD, the main challenges, and the actions that are being taken to meet them.

THE BRAZILIAN HEALTH SYSTEM: AN OVERVIEW

Health policies in Brazil are based on the “Unified Health System” (Sistema Único de Saúde [SUS]), which is a comprehensive and ambitious program that was included in the Federal Constitution in 1988. Before that, health policies were determined by each state government, frequently preventing the continuity of programs. The main principle established in the SUS is that health is a universal right and a state’s duty (Ministério da Saúde, Brasil, 2013a). Therefore, since the implementation of the SUS, social, educational, and economic policies are being implemented and enhanced aiming to reduce risks to health and provide health care services to the entire Brazilian population. It is important to clarify, however, that the inclusion of this health policy in the constitution did not result in its immediate and complete development. Programs directed toward certain population groups, such as children, women, workers, elderly people, indigenous people, and people with disabilities (physical, auditory, visual, and intellectual), are being gradually created and implemented. The general public health care program aims to provide equal access to health services for all these groups.

The implementation of such a program faces some challenges, especially due to Brazil’s large demographic, socioeducational, and geographic diversity. Besides the great demographic differences, the distribution of resources is also uneven. Table 1 summarizes the critical information. Providing services that reach the whole population requires health and educational programs that are adjusted to specific needs and realities across a complex country such as Brazil.

Aiming to reach the comprehensive needs of a large diverse population requires different strategies for service delivery. The system in Brazil is organized through the Health Attention Network (Rede de Atenção à Saúde [RAS]), which promotes cooperation and solidarity. The RAS (Grupo Técnico da Comissão Intergestores Tripartite, Brasil, 2010) is a network of horizontal links between points of action (homes, basic health units, specialized outpatient units, psychosocial attention units, therapeutic living units, and hospitals). A resolution by the Ministry of Health addressed the involvement of several health professions (including speech–language pathology and audiology) in the work of family health teams to increase their reach and efficiency (Molini-Avejonas, Mendes, & Amato, 2010).

Planning for effective health service delivery across a nation requires accurate and current information about the needs of the population. In Brazil, there is a general need for more information about prevalence and epidemiological data regarding all disabilities.

Table 1. Distribution of Resources in the Different Regions of Brazil

<table>
<thead>
<tr>
<th>Regions</th>
<th>% Population</th>
<th>% Wealth</th>
<th>% Universities</th>
<th>% SLPs and Audiologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>7.5</td>
<td>4.5</td>
<td>6.2</td>
<td>6</td>
</tr>
<tr>
<td>Northeast</td>
<td>28.1</td>
<td>13.1</td>
<td>19.2</td>
<td>13</td>
</tr>
<tr>
<td>Southeast</td>
<td>42.6</td>
<td>58.3</td>
<td>47.5</td>
<td>56</td>
</tr>
<tr>
<td>South</td>
<td>14.8</td>
<td>17.7</td>
<td>16.4</td>
<td>12</td>
</tr>
<tr>
<td>West-Central</td>
<td>6.8</td>
<td>6.4</td>
<td>10.7</td>
<td>13</td>
</tr>
</tbody>
</table>

Relevant to the current discussion, data about people with communication disorders, including ASD, are essential to determine the number and type of services needed in the different regions of the country.

In 1989, the inclusion of information about disabilities in the national population surveys became mandatory (Ministério da Saúde, Brasil, 2008). The census of 1991 identified 1.49% of the Brazilian population as having some kind of disability. A national survey conducted in 2010 (Guia Inclusivo, Brasil, 2011) has highlighted an increase in the proportion of self-reported disability. Table 2 shows the proportion of people who reported any disability and “mental impairment”—in this case, the inclusion of ASD would depend on each family’s individual understanding of the person with ASD as having a “mental impairment” or not. The number of people who report severe impairment is equivalent to 6.7% of the population, that is, 17.7 million.

Interpreting these numbers requires consideration of some methodological issues. At least some of the increases in prevalence probably are due to increased access to information and changes in diagnostic criteria for several impairments. Another possible explanation for the increases is the implementation of several policies for persons with disabilities that guarantee some rights. These include rights to a minimum wage for people with disabilities and access to treatment, which may have encouraged the families to report persons with different impairments or disabilities in the household. However, ASD is still not included as a specific issue in these surveys.

Legal rights of persons with ASD in Brazil

A presidential decree (Presidência da República, Casa Civil, Brasil, 2011) resulted in the establishment of a National Plan for the Rights of People with Disabilities, also called Living without Boundaries Plan. It proposes the collaboration of federal, state, and city resources to guarantee access to educational, social, and health services appropriate for individual needs of persons with disabilities. The creation or accreditation of Specialized Rehabilitation Centers (Centros Especializados em Reabilitação) is the first step proposed as a means to guarantee access to good-quality services for people with special needs, including people with autism.

Brazil adopted the principles of the United Nations’ Convention on the Rights of Persons with Disabilities (United Nations, 2006) in 2008. This means that persons with ASD have the same rights guaranteed to all persons with some impairment by several laws and decrees at the national and state levels. In addition, children have been protected by the Statute for Children and Adolescents since 1990, and the elderly people have been protected by the Statute for the Elderly since 2003. The implementation of these provisions, however, was not immediate. It has required long-term efforts and demanded the involvement of civil society organizations, universities, scientific associations, and others involved in promoting and sustaining social changes (Kirakosyan, 2013).

In 2012, people with ASD were included in the group of people with disabilities and therefore started to have the same rights as persons with other disabilities. The document (Presidência da República, Casa Civil, Brasil, 2012) clearly states that persons with ASD have the right to early diagnosis and treatment by a multidisciplinary team; adequate nutrition and medication; information about treatment alternatives and options; access to

### Table 2. The Proportion of People Who Reported Disability

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any disability</td>
<td>14.3%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Mental impairment</td>
<td>1.7%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

adequate education and professional training whenever possible; and protected housing whenever needed. Information about ASD is also provided both by official publications (Defensoria Pública do Estado de São Paulo, 2011) and by other organizations (ABC da Saúde, 2013; Associação amigos do Autista, 2013; Autismo e Realidade, 2013).

Persons with ASD and their families also benefit from social services provided by the municipality where they live. The Social Assistance Law (Presidência da República, Brasil, 1993) defines these services as promoting basic social protection in the home environment and aims to promote autonomy of persons with disabilities and their families. It also provides a minimum wage income (around US $400.00 monthly) to persons with disabilities who are unable to earn a salary.

The state of São Paulo, in the southeast region, has the largest population and the largest income of Brazil (21% of the population vs. 34% of the income). Therefore, it was the first state to have laws regarding the rights of persons with ASD (Assembléia Legislativa do Estado de São Paulo, 2008; Ministério Público do Estado de São Paulo, 2001). It is also one of the regions where persons with ASD have access to most services and alternatives. One of the most challenging issues in the state of São Paulo is the concentration of the population (the city of São Paulo has 10.8 million inhabitants and the metropolitan region has >20 million). This increases the demands regarding transport, housing, security, education, and health. To provide services to large populations, some cities have accredited private services that complement the work of the Childhood Psycho-Social Attention Center (Centro de Atenção Psicossocial Infãntil [CAPSI]) to provide therapy, counseling, and education to children with ASD and their families.

In the city of São Paulo, the education secretariat developed, in 2012, a program for creating a better environment for children with special needs including those with ASD. This program proposes continued education for teachers, adequate rooms and materials, and support by a multidisciplinary team. In this team, speech–language pathologists (SLPs) perform language assessment and follow-up within the school in extraclassroom activities and outside the schools in home visits or outpatient services, counseling families and interfacing with other health services.

In 2013, the health secretariat and the secretariat for the rights of disabled persons of the state of São Paulo published the São Paulo State Protocol for Diagnosis, Treatment and Reference for ASD persons (Secretaria de Saúde, São Paulo, 2013). It includes the need for speech-language assessment and intervention, suggesting that language assessment should be conducted using the Functional Communication Profile (FCP) included in the ABFW—Child Language Test (Fernandes, 2000).

Although this model has contributed to improving services for children with ASD in São Paulo, it does not necessarily transfer well to other regions. Improving the quality of services and access of children with ASD and their families in other Brazilian regions requires tailoring solutions to those regions because the problems are different and therefore need different and specific solutions.

Speech–language pathology service delivery to children with ASD

The entry point for public health care for persons with ASD is the primary care unit (Figure 1). The family can initiate a visit to a basic health center, or the family health team can identify the children in their home who have been referred through early identification programs and screenings. If the diagnosis is confirmed, the child is referred to a specialized care center. These are called CAPSI and are distributed throughout the national territory, with local organization and management.

The multidisciplinary teams comprise physicians, SLPs, physical therapists, occupational therapists, nurses, psychologists, and social workers who provide comprehensive attention according to each patient’s individual needs. Their aims are to provide services in outpatient clinical programs, empower
social links, promote social inclusion, report patients to higher complexity services when needed, and support and adapt working inclusion (Ministério da Saúde, Brasil, 2004). Childhood Psycho-social Attention Centers (Ministério da Saúde, Brasil, 2011) are specifically defined to provide services to children and adolescents. Following CAPSI’s guidelines, they provide group and individual therapy sessions, family support, reference to other services and resources, workshops, meetings, and home visits.

All the services in the field of mental health are organized within the Psycho-social Services Network (Rede de Atenção Psicossocial [RAPS]; Ministério da Saúde, Brasil, 2013a). The RAPS is part of SUS and shares its principles and guidelines. They were created in 2011 and are a result of the psychiatric reform and the resulting deinstitutionalization policies. They are based on the principles of Qualityrights that proposes the association of quality of services and guarantee of human rights. They aim to improve the quality of mental health services; educate users, families, and health care professionals to understand and enforce human rights; and support mutual collaboration of users and society (Drew, Funk, Tang, Lamichhane, & Chavez, 2011).

During 2012, a multidisciplinary team drafted by the Ministry of Health and comprising psychiatrists, neurologists, psychologists, occupational therapists, social workers, and an SLP worked in collaboration with parents as advisors in the development of a guideline about health care to persons with ASD and their families. The guideline is directed
toward managers and professionals working at SUS’s RAPS aiming to increase the access and improve the quality of the services provided to ASD persons and their families.

The guidelines produced by this workgroup were published in 2013 (Ministério da Saúde, Brasil, 2013a). In this document, the role of an SLP is clearly emphasized in the discussion about early diagnosis and identification of risk factors. The lack of communicative initiative is pointed out as an important factor in early identification. The document points out that these early signs are very sensitive to communication and interaction disorders but not specific to ASD; therefore, the participation of the SLP in the diagnostic multidisciplinary team is essential. Early intervention is proposed as a factor to ensure better results. Some issues specifically related to verbal and nonverbal communication characteristics of ASD are described as an alert to manifestations of which parents and professionals should be aware. The description of possible differential diagnosis includes specific language impairments and severe hearing loss. The guidelines to intervention emphasize the need for integration of the multidisciplinary team.

The Ministry of Health also published the Norms for Rehabilitation of Persons with ASD (Ministério da Saúde, Brasil, 2013b). This publication aims to offer orientation to multiprofessional teams regarding health care of people with ASD and their families within the context of health care to persons with disabilities. The document also provides a short revision about concepts and descriptions of ASD, signs of early alert, and tools for early diagnosis. It provides specific instructions regarding first interviews, assessment, and parent counseling. A common feature of the many components of Brazil’s public health policy regarding ASD emphasizes the importance of the multidisciplinary team for diagnostic and intervention. Speech-language pathologists played a role in drafting many of these policies, and they are acknowledged as having an important role in implementing them.

Since 2008, students with ASD have been included in the educational system (Ministério da Educação, Brasil, 2008), preferably in regular classrooms, with the needed support for the children and the teacher. Table 3 shows the number of students with ASD enrolled in the educational system. These numbers reveal that still just a small proportion of students with ASD are included in the educational system, although there is a steady increase. Yet, it is impossible to know from the available data about the distribution of this inclusion process across the nation. Although some data about the access of persons with ASD to speech-language pathology services are available (Defense-Netrval & Fernandes, 2015), there is still need for more data about

**Table 3. Total of Students With ASD Registered in the Educational System in 2009 and 2010**

<table>
<thead>
<tr>
<th>Students With ASD</th>
<th>2009</th>
<th>2010</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>All registers</td>
<td>2,430</td>
<td>2,528</td>
<td>3,693</td>
<td>4,708</td>
</tr>
<tr>
<td>Day care center</td>
<td>133</td>
<td>150</td>
<td>315</td>
<td>345</td>
</tr>
<tr>
<td>Preschool education</td>
<td>271</td>
<td>301</td>
<td>540</td>
<td>684</td>
</tr>
<tr>
<td>Primary school</td>
<td>1,465</td>
<td>1,677</td>
<td>2,177</td>
<td>2,857</td>
</tr>
</tbody>
</table>

the number of children with ASD, their specific needs, and possibilities.

In addition, persons with ASD have the right to continue their education beyond fundamental level and they have the right to free interstate transport, sports, culture, and leisure (Leite & Hetzel, 2011) guaranteed through a series of laws and regulations (Secretaria Municipal de Educação de São Paulo, 2010). However, the enforcement of these rights still depends on efforts from families, social groups, and public ministry.

CHALLENGES AND ACTIONS FOR IMPROVING SERVICES TO CHILDREN WITH ASD

Need for better training and scholarly publications

The supports and barriers faced by persons with ASD and their families vary according to many factors, including the region or state in which they live. Barriers to access to services are not always determined by financial issues; rather, the lack of specialized professionals in a large area frequently creates a barrier that is difficult to break. In several places, parents and families have gathered together to solve the financial issues and bring specialized professionals from large centers to more isolated regions in order to provide some kind of continuing education to the professionals working there. For many decades, professional education in more isolated regions was an expensive and therefore not systematic process. Just recently, some families and professionals are benefiting from initiatives using technology easily available for distance communication as instructional meetings with experienced professionals using the Internet, videoconferences, and other modes of distant communication. Universities are trying to respond to these initiatives with outreach programs directed toward the continued training for personal (mainly teachers and SLPs) that will provide the continued service to these children and their families.

On the contrary, most of the undergraduate programs of Fonoaudiologia in Brazil include diagnosis and intervention for children with ASD in their mandatory supervised practice activities (a total of at least 800 hr). This practice may vary from weekly therapy sessions with two or three children with ASD for 10 months to just having one child with ASD in the group of supervised practice (a group of undergraduate students wherein just one of them works with a child with ASD).

The first university service directed toward language disorders of children with autism was created at Universidade de São Paulo in 1986. Since then it has provided services to children and adolescents with ASD and their families, supervised practice for speech-language pathology students, and worked with applied research that contributed to the improvement of the quality of diagnosis and treatment provided to children with ASD and their families. It also has two blogs about language and autism (lifdeausp.blogspot.com.br, 2014; linguagemautismo.blogspot.com.br, 2014), aiming to encourage discussions about the issue and present information about it with a more accessible language.

The participation of professional associations and universities has played an important role in providing services to underserved population and improving the quality of speech-language pathology diagnosis and intervention (Fernandes & Behlau, 2013). The Brazilian Speech-Language Pathology and Audiology Association (SBFa), besides organizing the annual convention for SLPs and audiologists, with more than 2000 participants, publishes scientific journals. In the last few years, some changes were proposed to improve the international impact of these journals, and one of them was changing their names. The Journal da Sociedade Brasileira de Fonoaudiologia (2012) is now called CoDAS (2013); it is indexed in MEDLINE-PubMed, Scopus, and SciELO (Scientific Eletronic Library Online). Revista da Sociedade Brasileira de Fonoaudiologia (2012) now is called ACR—Audiology Communication Research (2013) and is indexed in SciELO, SIC, and Lilacs. It
was published by SBFA until 2012 and now by the Brazilian Audiology Academy (Academia Brasileira de Audiologia). All these journals are bilingual, published online, and with free access. They represent a useful and important contribution to the improvement of quality of services to families, regardless of their distance from large cities or health centers. During the last 5 years, these journals published 32 articles about ASD diagnosis and treatment, bringing the latest advances in the field to the SLPs working in different regions.

**Need for more assessment tools**

The lack of assessment tools adapted or created for Portuguese-speaking children has been a challenge for decades. Translating tests and programs developed to other populations involves dealing with much more than the translation itself. Most of the existing material is in English, a language with more than twice the number of words than Portuguese. On the contrary, Portuguese has a grammatical complexity that usually results in twice the number of morphemes of a given utterance than the equivalent utterance in English. Even picture-based tests demand careful consideration. Pictures that can be referred to by a very simple word in English may demand a complex one in Portuguese. Some phonemes may result in different meanings in one language and not in the other. Then, after a culturally and linguistically acceptable modification of a test is produced, normative data must be gathered on the new population. Therefore, the process of translating, adapting, and validating a foreign test to be usefully applied to Portuguese-speaking children is complex and expensive. Although some initiatives are being taken in this direction, Portuguese-based tests were also developed.

One example of a Portuguese-specific language test is the ABFW test (Andrade, Befi-Lopes, Fernandes, & Wertzner, 2000). This test aims to assess a child’s language development in the areas of pragmatics, vocabulary, phonetics, and fluency. It is completely based on the performance of Brazilian children and is used throughout the country. The FCP that results from the pragmatic assessment part of the test is particularly useful for children with ASD and has been used in several studies that aimed to simplify its application. The original test involved collecting a 15-min spontaneous communication sample, which is then submitted to the analysis of communicative acts, means, and functions. A recent study, however, concluded that a smaller sample can be as useful and more practical because it demands less time for transcription and analysis (Fernandes, Amato, & Molini-Avejonas, 2011). The ABFW test can also be used both to assess communication in group situations (Cardoso & Fernandes, 2004) and to analyze the communication of therapists (Mielher & Fernandes, 2006).

Other protocols have been developed to assess social-cognitive performance (Molini-Avejonas & Fernandes, 2002, 2003), social communicative adaptation (Morato & Fernandes, 2006), and the communicative difficulties perceived by parents of children with ASD (Balestro & Fernandes, 2012). Some tests that are directed toward other groups are useful with children with ASD as well. The Protocol for Behavior Observation (Protocolo de Observação Comportamental; Hage & Zorzi, 2004), for example, was developed to assess nonverbal small children, but it is useful for the observation of communication and cognitive development of children with ASD. The Signs of Risk in Child Development (Indicadores de Risco para o Desenvolvimento Infantil; Kupfer & Bernardino, 2009) is another example. It is a list of 31 behaviors and reactions that should be observed in children aged from 0 to 18 months. These are useful in identifying the first signs of disorders along the autism spectrum. Such tools are easy to use and inexpensive, and they can be used in the clinical setting or during home visits by health care agents.

**Need for better scientific evidence to guide intervention**

To contribute to the need for more intervention research to support evidence-based practice tailored to the people of Brazil, the
authors of this article have participated in a variety of intervention studies, which are summarized in this section. We conducted some of them with large populations aiming to determine aspects that can be generalized and applied to different realities. We conducted others with smaller samples, aiming to analyze specific aspects of ASD in greater depth in order to contribute to other proposals. In addition to informing future research, results of these investigations provided useful information for drafting guidelines and official policies regarding the services provided to ASD individuals, which have been summarized in the first part of this report.

One important issue was to verify whether there is an ideal period when to start language therapy or whether there is a point when the results are undetectable and therefore do not justify the costs of intervention. To answer this question, we conducted a study with 142 individuals (aged 2–16 years) receiving language therapy for 2 years (Fernandes, Amato, & Molini-Avejonas, 2012). The study required the participation of all subjects in language therapy with a pragmatics framework and evaluations at every 6-month period. Progress was measured using the FCP of the ABFW and the social-cognitive performance. The results based on statistical analysis showed that children who received language therapy at earlier ages tended to make more progress. However, variables such as environmental factors, severity of the symptoms at the therapy onset, association with other intervention and educational resources, and, mostly, consistent attendance to the weekly sessions played a fundamental role in the overall individual results.

We would not want such results to be interpreted as meaning that clinicians should not also provide language intervention services to older children and adolescents with ASD. Other studies indicated that adolescents who start language therapy intervention also show signs of progress (Cardoso & Fernandes, 2006). Fernandes (2005) reported the results of short-term intervention programs and concluded that all 9 participants had statistically significant progress in the FCP after a 6-month period. Defense-Netvral and Fernandes (2011) studied the evolution of another sample of eight adolescents with ASD who started language therapy at a latter age and verified that there were significant changes in the FCP and social-communicative adaptation after a 6-month period.

Other research addressed service delivery issues as well. Amato et al. (2011) studied factors that contribute to progress in language therapy of children with ASD. They concluded that one of the most important aspects in the progress of children with symptoms with various degrees of severity is the frequency of attendance to the therapy sessions. This is an important issue in cities such as São Paulo with huge problems of traffic and public transport. It means that guaranteeing access to services that are nearer to the child’s home is a theme that must be addressed by the authorities and that methods in which the child does not have to be brought to the service with such regularity must be proposed.

In a follow-up study, Misquiatti and Fernandes (2011) studied whether the therapeutic environment might interfere with the functional communication performance of children with ASD by comparing the child’s performance in a regular language therapy room and in a room that reproduces the home environment. The results indicated that such interference is not significant.

A prior study had verified the results of three different models of providing language therapy to children with ASD (Fernandes, Cardoso, Sass, Amato, & Sousa-Morato, 2008), with different results for each treatment protocol. In one of the conditions, children received language therapy with the participation of their mothers. This group showed more long-term development than the other groups that received individual or small-group therapy. Apparently, the experiences provided to the mother produced long-term changes in the home environment that were positive factors contributing to the child’s further development. This was not a randomized
study because the choice between each treatment protocol had to be based on the availability of each subject to be at the clinic at specific dates and times. These subjective criteria allowed the inclusion of 36 participants with ASD; further studies with more objective inclusion criteria and a larger number of participants are still needed.

This notion led to the proposal of programs involving tutoring and orientation to families (Fernandes, Amato, Balestro, & Molini-Avejonas, 2011). In this study, counseling sessions with parents were conducted by other members of the team while the children were attending language therapy sessions, as a way to guarantee the mothers’ presence. All mothers involved in the sessions considered it very useful to better understand their children and to be able to share their concerns with other people involved in similar situations. The study confirmed that specific and systematic counseling for short periods of time may contribute not only to the child’s communicative environment but also to the family’s understanding about the child’s abilities and difficulties. The feature of holding parent counseling sessions at the same time as child intervention sessions was an adaptation to a specific reality. Other contexts may require different adaptations. The use of written material may be possible in groups of parents with higher educational level, but it would not guarantee comprehension by this group. The same applies to each session themes; they should have specific objectives but should be flexible enough to adapt to different situations and specific needs of each group. The basic principles of these orientations involve the suggestion of strategies to improve the opportunities for communication, stimulate language development, and improve social contact and the quality of interaction within the family (Fernandes, Amato, Defense-Netvral, Balestro, & Molini-Avejonas, 2013).

Another important line of research has addressed questions about the identification of more efficient intervention methods according to each child’s individualized needs. To answer these questions, studies about different characteristics of children with ASD were conducted; they focused on aspects such as language abilities of pragmatics, vocabulary, and mean length of utterance (Fernandes, Miilher, Amato, & Molini-Avejonas, 2010), central coherence and syntactic awareness (Varanda & Fernandes, 2011), and functional responsivity during spontaneous interaction (Miilher & Fernandes, 2013).

In another intervention study, we investigated the use of digital resources in language therapy for children with ASD. That study showed that notebooks and tablets can be useful tools but should not replace interaction with another person using toys and games (Fernandes, Santos, Amato, & Molini-Avejonas, 2010).

Professional training, scientific publication, assessment tools, and scientific support to intervention programs are some of the challenges involved in providing speech–language services to children with ASD. Solutions must be adequate to the Brazilian reality, diversity, and culture. The collaboration of universities, scientific associations, professionals, and parents may contribute in meeting some of these challenges.

CONCLUSION

Many challenges must be addressed to provide adequate health and educational services to children with ASD and their families in Brazil. The inclusion of these children in regular schools demands support and training to already stressed teachers, and there is still no national policy regarding this issue. The early identification of children with ASD is beginning to grow, probably as a result of awareness campaigns in the public media.

Brazil’s commitment to provide health and educational systems that are available to all citizens is responding to these challenges; however, this demands a long-term effort that must involve all sectors of organized society on a joint, creative, and collaborative effort to implement services and guarantee equal access to the best available educational and therapeutic alternatives. Exactly what the best
alternatives are is yet to be determined by studies that are adapted to specific realities and designed to respond to specific questions generated across the diverse regions of Brazil.

Important steps have already been taken to recognize the rights of persons with ASD to health, educational, and social support. The implementation of the basic conditions that are necessary to guarantee these rights, however, is a gradual process and involves the identification of specific needs, possible solutions, and the agents that may participate.

Besides the large differences in the Brazilian reality, the great differences within the autism spectrum frequently imply individually based solutions that are very difficult to implement in a developing country with almost 200 million inhabitants. It demands the constant search for more efficient methods of assessment and intervention. This is one of the most important contributions that can be made by services associated with scientific associations, universities, and research centers.

Families must have access to information regarding different options for intervention and support to make the best decision for their children, based in scientific information and taking into account their opinions and beliefs. Fonoaudiologos should receive specific training and follow up the scientific development to provide the best possible service to children with ASD and their families. Professionals in the health area should be aware of information regarding the autism spectrum, guaranteeing access to other health services to all persons with ASD. Although many important developments have occurred in the last decades, and important steps were taken, it is fundamental now to maintain the initiatives and collaboration that will allow further development.

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Speech-Language Intervention for Children With ASD in Brazil

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