PHONOAUDIOLOGICAL CARE IN THE SUS: EXPANDING ACCESS AND THE CHALLENGE OF OVERCOMING INEQUALITIES

Assistência fonoaudiológica no SUS: a ampliação do acesso e o desafio de superação das desigualdades

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ABSTRACT

Purpose: to evaluate the evolution of the Speech, Language and Hearing Sciences inUnified Health System (SUS), in the years2000, 2005and 2010. **Methods:** this was a descriptive study, the units of analysis were the geographical regions of Brazil and universe of municipalities aggregated in population size. We analyzed theyears 2000, 2005 and 2010, and usedsecondary datato collectinformation onthe amountand the amount paidbyspeech therapists procedures performed, and the number ofprofessionals in theSUS. **Results:** there was a large increase in procedures of speech-language therapy in the country, with the largest growthin the North.Among municipalities, the largest increaseoccurred among thosesmallerpopulation. In 2010, 89.8% of municipalities didn't perform any type of procedure care speech-language therapy. Between 2000 and 2010 the coefficient procedures/1000 habrose from19.8 to 60.7. The evolution of speech-language therapy spending in SUS showed that the proportional growth of these procedures was greater than the increase in total outpatient spending. And among the groups, calls for the orthotics and prosthetics showed the highest growth. In the years analyzed, the country showed an increasein the number ofspeech therapists, despite beingshown adeficit ofprofessionalsin 2010. **Conclusion:** the evolution of speech-language therapy assistance in SUS showed significant growth between 2000and 2010. However, have abad distributionof health careandspeech therapists in the country, highlighting the continued need fordiscussions ofuniversal accessand the quest forequity incarespeech.

KEYWORDS: Speech, Language and Hearing Sciences; Health Services Accessibility; Unified Health System

INTRODUCTION

The implementation of the Unified Health System (SUS), in 1988, includes all citizens in its field of attendance to health services and attributes to the State the duty of accomplishing what has become the right of every Brazilian citizen. The SUS places into the main topics of health services the principles of universality, integrity and equity[1].

In this context, the speech-language therapy assistance in general health conditions must be guaranteed in all of its fields: hearing, voice, language, orofacial movements and dysphagia[2].

The human communication, object of study of the speech-language therapy, seen as a way of social integration of the individual, deserves important attention from public health action, since it allows the individual to put itself as a transforming agent of its social context[2-4].

Consequently, speech-language therapists have increased their presence in SUS, occupying spaces from the primary level of health care to expertise ambulatories, hospitals, educational unities, residences and other resources of the community,

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reorganizing the concepts and practices with the intent of offering a quality service, in accordance to the precepts of public health[5].

However, studies show that the offer of speech-language therapy care is still low on SUS when compared to its demand[2,6-8], particularly because of communication conditions due to the current epidemiological profile of the population, such as diseases in the circulatory system, external causes and neoplasia.

Therefore, this article described the evolution of SUS speech-language therapy assistance, according to the execution of procedures, the groups (therapy, audiology and prostheses), the cities divided by population and the relation need of speech therapists per inhabitant, in Brazil and in the Macrorregions, on years 2000, 2005 and 2010.

METHODS

This arcticle is a descriptive study; its analysis units were the Macrorregions of Brazil and the universe of municipalities divided by population, a research strategy used by researchers in different fields of study[9-11]. In this way, the cities were divided in:

1. Size I: less than 50.000 inhabitants;
2. Size II: between 50.000 and 90.000 inhabitants;
3. Size III: between 100.000 and 199.000 inhabitants;
4. Size IV: between 200.000 and 499.000 inhabitants;
5. Size V: between 500.000 and 999.000 inhabitants;
6. Size VI: between 1 million and 4,99 million inhabitants;
7. Size VII: with 5 million or more.

Secondary data was also used, of public domain, provided by the National Register of Health Establishments (CNES), the Ambulatory Information System (SIA), the Ministry of Health and the Brazilian Institute of Geography and Statistics (IBGE). The period of reference were the years of 2000, 2005 and 2010. The years were chosen for being the last of each five-year period, and also for contemplating a period in which the information systems were consolidated.

The Information Systems of Health (SIS) became one of the main computing resources capable of sending, in a fast, easy and safe way, information related to the SUS. They are important tools for evaluating the health services, because of the variety of information they allow us to create, as well as for its capacity of making available a great amount of information, which can be shared a short while after any event has taken place[12,13].

In the SUS, the national information systems are divided according to its uses. The systems responsible for the production of services are called Assistance Systems and are represented by the Systems of Hospital Informations (SIH) and the Systems of Ambulatory Information (SIA). The other group is formed by systems that congregate epidemiological data, thus called Epidemiological Systems. These are: Systems of Information on Mortality (SIM), Systems of Information on Live Births (Sinasc) and the System of Notification Aggravations (Sinan)[14-18].

The demographical data were taken from the IBGE for the three years analyzed: 2000, 2005 and 2010.

For the analysis of the evolution on the offer of ambulatory service, all procedures registered by speech-language therapists and all values paid in the SIA of the Ministry of Health were taken in consideration. After that, the procedures were grouped according to the typology provided by the Federal Council of Speech-Language Therapy[19], consisting of three groups:

1. Therapeutical practice: Appointment/ Evaluation, House/Institutional Assistance, Promotion/Protection, Rehabilitation, Others;
2. Audiology;
3. Ortheses and Prostheses: Hearing Health Services of Medium and High Complexity.

The evaluation of the professionals related to the SUS on year 2000 was made from the number registered in the Sanitary Assistance Research of the year 1999; on years 2005 and 2010, it was obtained through the arithmetic mean of monthly registrations, made available by the CNES.

To analyze the sufficiency of speech-language therapists in the SUS, the parameters of need established by Lessa and Miranda[20] were applied, which define: 1 speech therapist for every 10.000 citizens on primary attention; 1 for every 50.000 on secondary level; and 1 for every 100.000 on the third level.

All files were processed by software TABWIN, created by the Department of Informatics of the Ministry of Health. Files of definition and conversion were created to elaborate the tables.

For the analysis of data beyond the absolute and relative frequencies, the proportional variation of each variable was observed, calculated by the relation of values obtained on the last and first years of the studied period.

The research responds to the ethical precepts; the databanks are of public domain; there was no identification of any subject, neither the exposure to damage or risks.

RESULTS

In Table 1, it is possible to see a growth of 206,5% in speech-language therapy procedures in Brazil, a large growth when compared to the 12,3% increase of population between 1995 and 2010. This evolution occurred in every region of the country but was more visible on the North Region, which had a number a lot inferior than the other regions but still remained with the lowest percentage as of 2010 (3,43%). In all the studied period the Southeast presented the highest numbers of procedures, summing 74,1%, 61,3% and 52,9% of the total amount of 2000, 2005 and 2010, respectively. It is important to stress that as of 2010, the population of the Region represents 42% of the national population.

The analysis of the evolution on number of speech-language therapy procedures in Brazilian cities showed that there was a growth of 280% between 2000 and 2010, increasing from 150 to 570 cities that registered any kind of speech-language therapy procedure. A large part of this growth occurred in smaller cities. There was an increase of 816% in cities of Size I (up to 50.000 citizens); 261,8% in Size II (from 50 to 100 thousand); and 188,6% in Size III (from 100 to 200 thousand).

In 2010, 89,8% of the Brazilian cities didn't register any kind of speech therapy procedure by the SUS.

When it comes to the amount of procedures made, there was an increase in every Size, with the highest one in Size I (362,5%), followed by Size VI (1 to 5 million citizens), of 346,7%. The lowest growth happened in cities of Size VII (73,6%).

Table 1 – Population, procedures in Speech Therapy and its relation per citizens, divide by the country's regions. Brazil, 2000, 2005 and 2010.

Region	2000			2005			2010		
	Population	Procedures	Proc/ 1.000 cit.	Population	Procedures	Proc/ 1.000 cit.	Population	Procedures	Proc/ 1.000 cit.
North	12.900,70	40	0,31	14.698,80	152,9	1,04	15.864,50	544,3	3,43
Northeast	47.741,70	400,2	0,84	51.019,00	1.075,60	2,11	53.082,00	2.285,70	4,31
Center-West	11.636,70	178,8	1,54	13.020,80	524,9	4,03	14.058,10	850,4	6,05
South	25.107,60	251,3	1,00	26.973,40	799,2	2,96	27.386,90	1.773,90	6,48
Southeast	72.412,40	2.493,00	3,44	78.472,00	4.043,50	5,15	80.364,40	6.125,20	7,62
Brazil	**169.799,20**	**3.363,30**	**1,98**	**184.184,10**	**6.596,00**	**3,58**	**190.755,80**	**11.579,60**	**6,07**

Source: Brazilian Institute of Geography and Statistics (IBGE) and System of Ambulatory Information of the Ministry of Health. Data accessed in July 2013.
Note: The population and procedures are divided by 1.000.

There was an increase of 206,4% on the amount of procedures per citizen, which means there was 19,8 procedures per citizen in 2000, and 60,7 in 2010. In this last year the Size V (500.000 to 1 million citizens) cities presented the highest relation (86/1.000 citizens), whereas cities of Size I presented the lowest (42,7/1.000) (Table 2).

On Table 3, the analysis of the evolution of expenses with speech-language therapy on SUS demonstrated that the proportional growth of these procedures (929,4%) was higher than the increase of total ambulatory expenses (159,7%). The growth was observed in all the five Regions of Brazil, being higher in the Southeast (7,24 million) and Northeast (1,17 million) in 2000, in the Southeast (52,7 million) and South (34,5 million) in 2005 and again in the Southeast (128,9 million) and Northeast (51,2 million) in 2010. The North Region presented the lowest percentages throughout the whole studied period. The percentage of expenses in the Southeast Region represented about 50% of the whole expenses with speech-language therapy on SUS.

Table 2 – Procedures in speech-language therapy by cities, with and without registers, and the relation according to size. Brazil, 2000, 2005 and 2010

Size (1.000 cit.)	2000				2005				2010			
	Procedure (N)	City (N)		Proc/ 1.000cit.	Procedure (N)	City (N)		Proc/ 1.000cit.	Procedure (N)	City (N)		Proc/ 1.000cit.
		W	W/O			W	W/O			W	W/O	
Up to 49	590.910	25	4.957	9,5	1.396.280	68	4.928	21,9	2.732.766	229	4.728	42,7
50 |-- 100	395.437	34	267	18,9	783.153	56	257	35,4	1.277.942	123	202	57,3
100 |-- 200	421.375	35	82	25,7	701.882	56	74	39	1.624.653	101	49	80,9
200 |-- 500	694.679	31	45	29,9	1.266.007	54	36	45,8	1.922.880	79	16	67,5
500 |-- 1.000	317.044	14	4	25,2	717.312	15	6	48,6	1.350.656	23	0	86
1.000 |-- 5.000	378.741	9	2	20,9	918.277	11	1	43,7	1.692.007	13	0	74,9
≥ 5.000	565.116	2	0	34,7	813.123	2	0	47,8	978.661	2	0	55,7
Total	**3.363.302**	**150**	**5.357**	**19,8**	**6.596.034**	**262**	**5.302**	**35,8**	**11.579.565**	**570**	**4.995**	**60,7**

Source: IBGE and Ministry of Health's SIA. Data accessed on July 2013.
Note: Cities with and without register of ambulatory production in speech-language therapy.

Table 3 – Values paid for the total speech therapy and ambulatory procedures divided by regions. Brazil, 2000, 2005 and 2010

Region	2000			2005			2010		
	Paid values		%	Paid values		%	Paid values		%
	Total	Speech	Speech	Total	Speech	Speech	Total	Speech	Speech
North	261,52	0,11	0,04	457,94	2,02	0,44	846,84	9,85	1,16
Northeast	1.338,63	1,17	0,09	1.913,54	18,08	0,94	3.396,29	51,24	1,51
Center-West	370,47	0,46	0,12	588,52	7,27	1,23	1.039,86	21,2	2,04
South	828,8	0,67	0,08	1.293,85	34,57	2,67	2.201,78	47,5	2,16
Southeast	2.898,82	7,24	0,25	4.660,84	52,75	1,13	7.312,44	128,99	1,76
Brazil	**5.698,25**	**9,65**	**0,17**	**8.914,70**	**114,68**	**1,29**	**14.797,21**	**258,78**	**1,75**

Source: MH's SIA. Data accessed in July 2013.
Note: The paid values are divided by 1.000.000.

The evolution on groups of speech-language therapy procedures shows a large growth between 2000 and 2010. The North Region presented the largest growth in therapeutical practice, audiology and ortheses and prostheses; however, the Southeast concentrated about 50% of each group's procedures throughout the period. Among the groups, ortheses and prostheses presented the highest increase (3.378%).

Procedures related to therapeutical practice presented the highest percentage throughout the whole period, representing 86,5% in 2000, 78,2% in 2005 and 70% in 2010 of the total procedures performed. A likewise movement was observed with audiology procedures, which increased proportionally in every Region of the country (Table 4).

In the studied years, Brazil presented an increase of 181,8% in the number of speech-language therapists (Table 5), with the Southeast Region being the one with the highest percentage. The North Region had it number multiplied by 100 when comparing the amount of professionals in 2000 and in 2010. Considering the number of speech-language therapists registered on SUS, the Southeast concentrates more than 50% of the professionals. The other regions also presented growth in the number of specialists registered on SUS.

Table 4 – Speech-language procedures by groups, divided according the country's regions. Brazil, 2000, 2005 and 2010

Region	Therapeutical Practice			Audiology			Ortheses and Prostheses		
	2000	2005	2010	2000	2005	2010	2000	2005	2010
North	38.288	129.901	416.864	1.705	18.785	102.481	52	4.228	24.947
Northeast	352.187	795.379	1.786.159	47.413	241.089	425.136	632	39.088	74.431
Center-West	152.642	414.231	647.996	24.907	99.968	159.741	1.219	10.673	42.704
South	213.836	572.324	1.338.111	36.744	158.453	342.345	697	68.423	93.403
Southeast	2.155.035	3.246.714	4.846.374	327.238	682.126	1.051.546	10.707	114.652	227.327
Brazil	**2.911.988**	**5.158.549**	**9.035.504**	**438.007**	**1.200.421**	**2.081.249**	**13.307**	**237.064**	**462.812**

Source: MH's SIA. Data accessed in July 2013.

Tabela 5 – Number of speech-language therapists and the need for professional divided by the country's regions. Brazil, 2000, 2005 and 2010

Region	2000		2005		2010	
	Professionals	Need	Professionals	Need	Professionals	Need
North	36	1.392	176	1.612	404	1.772
Northeast	396	5.041	732	5.441	1.695	5.746
Center-West	184	1.235	387	1.403	636	1.546
South	387	2.556	875	2.796	1.459	2.871
Southeast	2.273	8.389	3.326	9.162	5.038	9.429
Brasil	**3.276**	**18.613**	**5.496**	**20.414**	**9.232**	**21.364**

Source: Ministry of Health's CNES. Data accessed in July 2013.

When the need for professionals is evaluated, following the parameters defined by Lessa and Miranda[17], there is a discrepancy in the number of speech-language therapists working by the SUS when compared with the need for these specialists, highlighting a deficiency of 82,4% in 2000 and 56,8% in 2010.

Among the regions, the North and Northeast regions presented a lower level than the national average in every year. In the last year, the South and Southeast regions presented lower deficits, attending to 51% and 53% of its needs, respectively.

DISCUSSION

The insertion of speech-language therapy in public policies of the federal government started between 1970 and 1980, initially in the educational field, and lately expanding to health care and social assistance[21]. In health care, during this period, the few professionals in the field focused their actions in ambulatories of mental health and hospitals, keeping an individualistic and rehabilitating performance[22].

With the implementation of SUS (based on the principles of universality, equity and with the intent of decentralization), the expansion of the services and the users' rights, there was a need of reorienting the speech-language therapy practice, amplifying its action to beyond the rehabilitation.

In the presented results, it is observed a significant increase on the number of speech-language therapy procedures performed through SUS during the studied period. Such evolution happened not only due to the expansion of the field of action of the speech-language therapist, with actions turned to promotion, protection and recovery of the human communication health, but also because of public policies or health programs, such as the National Policy for Attention to the Hearing, the program *Health in School*, the multiplications of the Centers for Support of Family Health (Nasf) and the program *Live Without Limits*, which favored a major insertion of the speech-language therapy assistance in the SUS.

The North, South and Northeast regions presented largest growths during the period. However, the North Region stands out, for virtually having no offer of speech therapy services in 2000, when there was only a register of 0,3 procedures/1.000 citizens, and for, in 2010, reaching only 5% of the number of speech-language therapy procedures registered in the country, even though the region had 8,3% of the national population.

It is noticeable a scenario of inequity when the evolution among the regions is analyzed, suggesting

an ongoing significant difference between the richest and poorest regions of the country. The Southeast, the richest region, still concentrated, in 2010, more than 50% of the registered procedures, although its population represents little more than 40% of the country's.

The reformation undertaken in the Brazilian health system during the late 1980s brought as main questions not only the guarantee of right to health, but, in essence, the notion of equity concerning a broader distribution of health resources[23]. Such a demand has not yet been reached in the distribution of speech-language therapy services through SUS.

In 2000, only 150 Brazilian cities registered speech-language therapy procedures, increasing to almost 600 in 2010. Regardless the increase, the number is little more than 10% of the total number of cities. The growth was registered mostly in smaller cities; the increase in bigger cities was represented by the ones in Rio de Janeiro and São Paulo, both states of the Southeast region, which had already registered high amounts of procedures in the first year.

It is also important to highlight that the relation of procedures per habitant grows according to the population of the city, in practically all the studied period, even though during the last year the relation was bigger in medium-sized cities.

Other studies have already demonstrated that, in Brazil, the better qualified and most of the offer of health services are centered in locations with better socioeconomical conditions, such as capital cities and metropolitan regions[24-26].

Analyzing the offer of health services and how they are distributed is a way of measuring the effort a society develops to overcome its inequities[27]. The different demographical, epidemiological, socioeconomical, medical care, administrative and financial conditions generate different kinds of problems, difficulties and priorites, in its local and regional space of action and produce strong inequities in the capacity of the SUS of responding to local needs[28].

The evolution of expenses with speech-language therapy procedures between 2000 and 2010 demonstrate a higher increase when compared to the ambulatory procedures in SUS during the same period. This growth was not only in quantity; there was a real raise in the value paid for speech-language therapy procedures. This shows the insertion and importance of this field in the public health system.

The analysis of the different groups of speech-language therapy procedures demonstrated that during the first evaluated year the Southeast Region centered more than 74% of the procedures registered in all groups. During the following five-year periods there was a decentralization. The regions that came closer to the coefficient of procedures per citizens were the South, Center-West and Southeast, in all three groups.

Between 2000 and 2010 the increase of audiology corresponded to the growth of therapeutical practices, demonstrating some balance between the offer of consultations and exams in SUS. On the other hand, the exponential growth of procedures related to ortheses and prostheses allow us to affirm that there was an increase on the access to hearing rehabilitation, especially due to the National Policy of Hearing Health, created in 2004.

Government programs that aim to make available full and universal access to health help the rehabilitation professional, allowing him to reorientate his practices according to the precepts of the SUS[7].

The number of professionals raised in every regions, with the biggest increase being on the North Region, which presented an utterly small amount in 2000 and which is still the region with the smallest number as of 2010. Like it was observed in the amount of procedures, the Southeast concentrated more than the half of professionals registered in SUS in all of the studied years.

Similar results were identified in the state of Minas Gerais, where there is a grade disparity in the distribution of speech-language therapists, with greater concentration in more developed cities[8].

It is also important to stress that, during the studied period, Brazil had an increase in the number of positions in Speech-Language Therapy courses, as well in Continued Professional Development (CDP) courses, such as the Multiprofessionals Health Residencies and the Masters degrees, allowing a better professional qualification and insertion in the public system through public examinations. Besides since 2008, a new and amplified *locus* of action to the speech-langauge therapists was made legal by the Governmental Regulation GM/MS 154/2008[29], marking the effective insertion of this professional in the primary level of health attention in Brazil.

However, apart from this growth, it is notable that the number of professionals is still inferior to the needs of the population, in all the regions. According to the parameter of need, the Southeast and the South regions present the lower deficits of speech-language therapists in the period. With that, it is possible to say that the distribution and insertion of these professionals in SUS is not enough to guarantee specialized care to everyone.

A strangling in the speech-language therapy care through SUS was also stated in Minas Gerais, where the relation speech-language therapist per citizen was of 1 to every 17.700 citizens in 2009[8].

The need for professional aid for people with communication disorders takes under consideration factors such as epidemiological and health care indicators[20]. The insertion of speech-language therapists in many fields of the SUS shows that the health care are important for the overall health[8], since disorders in human communication can compromise the child development, restrict professional growth and jeopardize the population welfare[30].

This study used information from secondary databanks, both official and relevant in the country, which don't replace other contributions based on population inquiries or other methods based on primary data.

Nevertheless, the use of secondary data for the development of researches have been recognized as an effective strategy of research, consisting of a potential source of information because it optimizes the time and favors better information, produced by the System of Information. Studies show that, in Brazil, the systems with more qualified data are the ones used for scientific production[31].

FINAL CONSIDERATIONS

The evolution of speech-language therapy care through SUS presented a significant growth during 2000 and 2010. Such increase was not only seen on the number of registered procedures or professionals related to the system, but also in the raise on the value of such services and on the offer of speech-language therapy care in all levels of attention.

However, despite these advances, it is still persistent a bad distribution of professionals and their services throughout the regions and cities of the countries. This situation can be even graver if we consider the aging of the population and the increase of external causes, factors that determine the demand for speech-language therapy care.

All in all, it is essential, through scientific production, the discussion of the equity universalization of access to the Brazilian public health system, in a way that the access to speech-language therapy care is recognized as a right of the population.

RESUMO

Objetivo: avaliar a evolução da assistência fonoaudiológica no SUS, nos anos 2000, 2005 e 2010. **Métodos:** trata-se de um estudo descritivo, cujas unidades de análise foram as regiões do Brasil e o universo dos municípios agregados em porte populacional. Foram analisados os anos de 2000, 2005 e 2010, e utilizados dados secundários para coletar informações sobre a quantidade e o valor pago por procedimentos realizados por fonoaudiólogos, além do número de profissionais no SUS. **Resultados:** houve grande crescimento dos procedimentos de fonoaudiologia no país, com maior crescimento na região Norte. Entre os municípios, o maior crescimento ocorreu entre aqueles de menor porte populacional. Em 2010, 89,8% dos municípios brasileiros não realizaram nenhum tipo de procedimento em assistência fonoaudiológica no SUS. Entre 2000 e 2010, o coeficiente procedimentos/mil habitantes passou de 19,8 para 60,7. A evolução dos gastos com fonoaudiologia no SUS demonstrou que o crescimento proporcional destes procedimentos foi maior que o aumento dos gastos totais ambulatoriais. E entre os grupos, os atendimentos para órteses e próteses apresentaram o maior crescimento. Nos anos analisados, o país apresentou um aumento no número de fonoaudiólogos, apesar de ser evidenciado um déficit de profissionais em 2010. **Conclusão:**a evolução da assistência fonoaudiológica no SUS apresentou um crescimento significante, entre 2000 e 2010. Entretanto, ainda persiste uma má distribuição da assistência e de fonoaudiólogos no país, evidenciando a necessidade contínua de discussõessobre a universalização do acesso e a busca pela equidade na assistência fonoaudiológica.

DESCRITORES: Fonoaudiologia; Acesso aos Serviços de Saúde; Sistema Único de Saúde

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