Characterization of patients seen at a speech therapy school clinic

Caracterização de pacientes atendidos em um ambulatório-escola de Fonoaudiologia

Caracterización de los pacientes atendidos en una consulta externa de logopedia

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Abstract

Introduction: Research on the characterization of patients, health conditions, demands and speech therapy services allow the targeting of actions, preparation of policies and development of resources to increase the quality of care. **Purpose:** Characterize the patients in a Speech-Language Pathology clinic, oral language area, at a university hospital, and verify the association between speech and language diagnosis and sociodemographic data. **Methods:** Data were collected from medical records of patients at the Speech-Language Pathology and Audiology clinic, children's oral language area, from Clinic Hospital of Federal University of Minas Gerais State. The descriptive analysis of the data was done through the frequency distribution of the categorical variables and analysis of the measures of central tendency and dispersion of the continuous variables, and analysis of association through the tests Pearson's chi-square and Kruskal-Wallis. **Results:** The patients' profile was characterized by the prevalence of males, average of 6,70 years, public schools' students, coming from the metropolitan region and regionals with low socioeconomic indicators, that participate in medical monitoring and speech therapy simultaneously, diagnosis made at preschool age and a higher occurrence of language disorders associated with other conditions. There was an association between speech therapy diagnosis and age at the time of diagnosis.

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Conclusion: The study contributes to the knowledge of the sociodemographic profile of the population assisted, favoring the organization and optimization of the assistance according to the users' demands, streamlining the service and providing more turnover and coverage to the public.

Keywords: Speech, Language and Hearing Sciences; Child Language; Language Disorders; Ambulatory Care; Public Health.

Resumo

Introdução: Pesquisas sobre caracterização de pacientes, condições de saúde, demandas para atendimento e serviços fonoaudiológicos permitem o direcionamento de ações, a elaboração de políticas e o desenvolvimento de recursos para a ampliação da qualidade da assistência. **Objetivo:** Caracterizar os pacientes de um ambulatório de Fonoaudiologia, área de linguagem oral, de um hospital universitário, e verificar a associação do diagnóstico fonoaudiológico com os dados sociodemográficos. **Métodos:** Realizada coleta de dados sociodemográficos e clínicos em prontuários de pacientes do ambulatório de Fonoaudiologia, área da linguagem oral infantil, do Hospital das Clínicas da Universidade Federal de Minas Gerais. A análise descritiva foi realizada por meio da distribuição de frequência das variáveis categóricas e análise das medidas de tendência central e de dispersão das variáveis contínuas; a análise de associação foi por meio dos testes Qui-quadrado de Pearson e Kruskal-Wallis. **Resultados:** Houve prevalência do sexo masculino, média de idade de 6,70 anos, estudante da rede pública, proveniente da região metropolitana e regionais com baixos indicadores socioeconômicos, que realizam acompanhamento médico concomitante ao fonoaudiológico, diagnóstico realizado em idade pré-escolar e maior ocorrência de transtornos de linguagem associados a outras condições de saúde. Houve associação entre o diagnóstico fonoaudiológico e idade na época do diagnóstico. **Conclusão:** O estudo contribui para o conhecimento do perfil sociodemográfico da população assistida, favorecendo a organização e a otimização da assistência conforme as demandas dos usuários, dinamizando o atendimento e proporcionando maior rotatividade e abrangência ao público.

Palavras-chave: Fonoaudiologia; Linguagem Infantil; Transtornos da Linguagem; Assistência Ambulatorial; Saúde Pública.

Resumen

Introducción: La investigación sobre la caracterización de los pacientes, condiciones de salud, demandas y servicios de logopedia permiten la dirección de acciones, desarrollo de políticas y recursos para incrementar la calidad de la atención. **Objetivo:** Caracterizar los pacientes de una clínica logopédica, área de lenguaje oral, de un hospital universitario, y verificar la asociación del diagnóstico logopédico con datos sociodemográficos. **Métodos:** Se recolectaron datos de las historias clínicas de los pacientes de la clínica de Patología del Habla y el Lenguaje, área de lenguaje oral infantil, en el Hospital das Clínicas da Universidade Federal de Minas Gerais. El análisis descriptivo de los datos se realizó mediante distribución de frecuencia de variables categóricas, análisis de medidas de tendencia central y dispersión de variables continuas, y análisis de asociación mediante las pruebas Chi-cuadrado de Pearson y Kruskal-Wallis. **Resultados:** El perfil se caracterizó por la prevalencia del sexo masculino, edad media 6,70 años, estudiantes de escuelas públicas, de la región metropolitana y regiones con bajos indicadores socioeconómicos, que se someten a seguimiento médico de manera concurrente con logopedia, diagnóstico realizado en edad preescolar y mayor ocurrencia de trastornos del lenguaje asociados a otros condiciones. Hubo una asociación entre el diagnóstico logopédico y edad al momento del diagnóstico. **Conclusión:** El estudio contribuye al conocimiento del perfil sociodemográfico de la población atendida, favoreciendo la organización y optimización de la atención de acuerdo a las demandas de los usuarios, agilizando la atención y brindando mayor rotación y alcance al público.

Palabras clave: Fonoaudiología; Lenguaje Infantil; Trastornos del Lenguaje; Atención Ambulatoria; Salud Pública.

Introduction

In the field of health care, federal university hospitals act as essential centers for training human resources, teaching and research. In addition, these institutions are a reference of medium and high complexity for the Brazilian Unified Health System (SUS) and play a fundamental role in the evolution of public health[1].

The role of the speech-language pathologist, as a professional member of the multiprofessional team, aims to promote, predict and recover the health of the population with regard to aspects related to communication, oral sensory motor system and balance[2].

As one of the areas of specialty and study of Speech-Language Pathology and Audiology, language requires important attention from public health actions, since it constitutes a fundamental communication system for social interaction and quality of life of the individual[3].

The characterization of patients, demands for care and speech-language pathology services allow the development of resources to increase the quality and effectiveness of the care provided, especially in outpatient clinics also focused on professional training. The determination of certain parameters, including the parameters that guide the duration, frequency and time of treatment, such as the Time Reference Instrument (IBT, *Instrumento Balizador de Tempo*), contribute to the planning and application of speech-language pathology therapy[4-6].

The IBT, published by the Brazilian Federal Council of Speech-Language Pathology and Audiology, is based on the relationships and interactions between the disease and changes in human functionality, which are raised and identified through the International Statistical Classification of Diseases and Related Health Problems (ICD-10) and the International Classification of Functioning, Disability and Health (ICF)[5]. In this context, this instrument determines that the average time of speech-language therapy in language must be over one year, and that the consultation must have an average of 45 minutes twice a week.

However, the parameters referring to the duration of care vary according to the severity of the alteration, as well as to environmental, personal and social factors, and to the different approaches to intervention. Only one study[6] was found addressing the appropriate use of standardized time references carried out in a municipal public service, which found deficits in references related to frequency, followed by duration and time, in most of the evaluated speech-language pathology specialties.

Studies investigating the characterization of patients in public services, as well as the health conditions and speech-language pathology demands of the population, have become key in the process of speech-language pathology work in public health. By characterizing the population, speech-language pathologist are able to delve deeper into public demands, direct actions and collaborate in the elaboration of strategies aimed at both the public institution and the population.

In this sense, this study aimed to characterize the patients of a Speech-Language Pathology and Audiology outpatient clinic in the oral language area, of a university hospital, aiming to investigate the association of the speech-language pathology diagnosis and sociodemographic data.

Methods

The study sample was collected by analyzing the medical records of patients being treated and waiting for care at the Speech-Language Pathology and Audiology Clinic at the Hospital das Clínicas of the Universidade Federal de Minas Gerais (HC-UFMG) - children's oral language area, after previous evaluation in a specific department for evaluation and diagnosis.

In this sense, the researchers collected data regarding sex, age, education, medical diagnosis hypothesis, speech-language pathology diagnostic hypothesis, age at which the speech-language pathology diagnosis was obtained, number of consultations carried out at the oral language outpatient clinic, number of absences at the oral language outpatient clinic, and other aspects monitored. Finally, the following information was also collected: address, age of father and mother, and educational level of the father and mother. All these data were extracted from the medical records of patients waiting for care in the last two years, evaluated from March 2017 to November 2019. However, as data regarding the age and educational level of parents were not found in most of the medical records at the time of collection, the researchers decided not to analyze these factors.

It should be noted that patients at this center were previously evaluated at the Speech-Language

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Pathology and Audiology outpatient clinic, in a specific department for evaluation and diagnosis. After the initial assessment, the patients were referred to the specific areas of Speech-Language Pathology (oral language, voice, orofacial motricity, etc.), and waited for their turn to be treated in these specific areas. However, the wait was too long in many cases, which showed the need for a study like this one to streamline the flow in the clinic. Data collection was carried out from April to November 2019 and, by choice of the researchers, included a period of two years to carry out the data collection, thus excluding files from the years prior to this period.

This study was analyzed and authorized by the Research Ethics Committee of the Institution, through the Decision No. 3.172.707.

To carry out the investigation, the researchers divided the assessment of data from patients who were being treated from those analysis from patients who were still just awaiting care in the oral language department. On the one hand, the analysis of the patients who were being treated was carried out through the patient's medical records (which include their personal data, number of speech therapy sessions performed, reports and evolutions) and data from the Medical and Statistical Archiving Service (SAME, *Serviço de Arquivamento Médico e Estatístico*) of the University Hospital, in the case of those patients who were evaluated and discharged during the period covered by the research. On the other hand, data from people waiting for care were collected from evaluation reports from the evaluation and diagnosis department.

Due to the wide variety of terms and diagnoses found, which made statistical analysis difficult, the researchers decided to group the medical and speech-language diagnoses after data collection. Thus, the 41 medical diagnoses collected were organized into four groups: (1) Autism Spectrum Disorder (ASD) and/or Oppositional Defiant Disorder (ODD); (2) Down Syndrome; (3) Neurological Impairment; and (4) Speech or Language Disorders. The most frequent diagnoses were considered

for the grouping, which formed the first two groups mentioned above. Then, the other diagnoses of neurological origin, such as microcephaly, cerebral palsy and intellectual disability, were compiled in the Neurological Impairment group. Finally, diagnostic hypotheses reported by physicians regarding speech and language impairments without another nosological diagnosis, such as specific disorders of speech and language development, were assigned to Group 4.

Regarding the speech-language pathology diagnosis, the 25 terms found were divided into the following three groups: (1) Language Delay; (2) Developmental Language Disorder; (3) Language Disorder associated with other conditions, which included the ASD. The wide variety of speech-language pathology diagnoses found may be associated with the variation of nomenclature or clinical terms adopted by professionals for the diagnostic hypotheses of the same alteration. This can be seen in the Developmental Language Disorder Group, which included different terms found, such as specific language disorder, expressive language disorder, receptive language disorder and specific language development disorder.

Descriptive analysis was performed through frequency distribution of categorical variables and analysis of measures of central tendency and dispersion of continuous variables, while association analysis included the Pearson's Chi-Squared and Kruskal-Wallis Tests. Finally, the researchers used the SPSS v21.0 software for data entry, processing and analysis.

Results

The total sample consisted of 27 patients being treated at the oral language outpatient clinic, with a mean age of 6.70±3.31 years, and 86 patients evaluated by the evaluation and diagnosis department of the speech-language pathology outpatient clinic, who were waiting to start the treatment, with a mean age of 6.74±2.35 years (Table 1).

Table 1. Descriptive measures of the age variable (in years)

Variables	N	Mean	SD	Median	Minimum	1st Q	3rd Q	Maximum
Undergoing treatment	27	6.70	3.31	6.00	1.00	4.00	9.00	14.00
Awaiting treatment	86	6.74	2.35	7.00	1.00	5.00	8.00	16.00

Abbreviation: N = Number of subjects; SD = Standard Deviation; Q = Quartile

The analysis of the sociodemographic data of the sample showed that the majority of patients being treated were male (59.3%) and that all (100.0%) patients who had information about the type of school in their medical records studied at a public school. As for the patients who were waiting to start treatment, 66.3% were male and, among the patients who had available information regarding the type of school in their medical records, the majority (82.5%) also studied in a public school. (Table 2)

Table 2. Descriptive analysis of sociodemographic data of patients being treated and awaiting treatment

Variables	Undergoing treatment		Awaiting treatment	
	N	%	N	%
Sex				
Male	16	59.3	61	66.3
Female	11	40.7	31	33.7
Total	27	100.0	92	100.0
Type of School				
Public	12	100.0	33	82.5
Private	0	0.0	7	17.5
Total	12	100.0	40	100.0

Abbreviation: N = Number of subjects, which varies due to missing data

The analysis of the follow-ups performed showed that most of the patients being treated were followed up in two medical specialties (40.7%). In turn, with regard to patients waiting to start treatment, most (24.4%) did not perform any follow-up and, among those who did, 22.1% were monitored by a physician and another health professional. (Table 3)

Table 3. Descriptive analysis of follow-ups performed by patients being treated and awaiting treatment

Variables	Undergoing treatment		Awaiting treatment	
	N	N	N	%
Follow-ups				
Psychiatrist	0	0.0	2	2.3
P	2	2	16	18.6
Genetics	0	0.0	1	1.2
Psychology	0	0.0	1	1.2
Occupational Therapy	0	0.0	3	3.5
Two medical specialties	11	11	6	7.0
Other health professionals	4	4	2	2.3
Physician and other healthcare professional	7	7	19	22.1
Other	1	1	14	16.3
None	2	2	21	24.4
Total	27	27	86	100.0

Abbreviation: N = number of subjects

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As for the place of residence of patients being treated, most (48.1%) of them lived in the metropolitan region. When evaluating the region where the patients who live in Belo Horizonte live, the results showed that most are in the Venda Nova region (40.0%). In turn, 54.7% of patients awaiting treatment lived in the metropolitan region and, among patients who lived in Belo Horizonte, 25.0% lived in the Northeast region. (Table 4)

Table 4. Descriptive analysis of the place of residence of patients being treated and awaiting treatment

Variables	Undergoing treatment		Awaiting treatment	
	N	%	N	%
Municipality				
Belo Horizonte	10	37.0	36	41.9
Metropolitan region	13	48.1	47	54.7
Other	4	14.9	3	3.4
Total	27	100.0	86	100.0
Region of Belo Horizonte*				
Barreiro	0	0.0	2	5.6
South Center	0	0.0	2	5.6
East	0	0.0	4	11.1
Northeast	1	10.0	9	25.0
Northwest	2	20.0	4	11.1
North	0	0.0	4	11.1
West	1	10.0	1	2.7
Pampulha	2	20.0	6	16.7
Venda Nova	4	40.0	4	11.1
Total	10	100.0	36	100.0

Abbreviation: N = Number of subjects; *only for patients residing in Belo Horizonte

The analysis of the descriptive measures of the variable age at diagnosis made it possible to find the mean age of 4.08±2.43 years for patients undergoing treatment and 4.99±2.45 years for patients awaiting treatment. (Table 5)

Table 5. Descriptive measures of the diagnostic age variable (in years)

Variables	N	Mean	SD	Median	Minimum	Maximum
Undergoing treatment	16	4.08	2.43	4.00	1.00	12.00
Awaiting treatment	79	4.99	2.45	5.00	2.00	16.00

Abbreviation: N = Number of subjects, which varies due to missing data; SD = Standard Deviation

Regarding medical and speech-language pathology diagnoses, the analysis showed that neurological impairment is the most prevalent medical diagnosis (44.0%) in patients being treated, while language disorder associated with other conditions (81.5%) was the most prevalent speech-language pathology diagnosis. Likewise, neurological impairment was also the most prevalent medical diagnosis (38.5%) among patients awaiting treatment, and language disorder associated with other conditions was the most prevalent (60.0%) speech-language pathology diagnosis. (Table 6)

Table 6. Descriptive analysis of medical and speech-language pathology diagnoses

Variables	Undergoing treatment		Awaiting treatment	
	N	%	N	%
Medical Diagnosis				
ASD/ODD	9	36.0	15	23.1
Down Syndrome	5	20.0	2	3.1
Neurological Impairment	11	44.0	25	38.5
Speech/Language Disorder	0	0.0	23	35.3
Total	25	100.0	65	100.0
Speech-Language Pathology Diagnosis				
Language Delay	4	14.8	0	0.0
Developmental Language Disorder	1	3.7	34	40.0
Language Disorder associated with other conditions	22	81.5	51	60.0
Total	27	100.0	85	100.0

Abbreviation: N = Number of subjects, which varies due to missing data

Data referring to the starting date of treatment at the outpatient clinic, the number of consultations performed and the number of absences, showed that the patient who had been in therapy for the longest time had attended 191 consultations and had 21 absences by the time of collection.

The association analysis, using the Pearson's Chi-Squared and Kruskal-Wallis Tests, between the speech-language pathology diagnosis and the demographic and clinical data of the patients being treated showed a statistical significance between the speech-language pathology diagnosis and the patient's age ($p=0.042$), in which a higher median and mean age is observed for patients diagnosed with language disorder associated with other conditions. However, there was no statistical significance in the results obtained in the other associations. (Table 7)

Table 7. Association between speech-language pathology diagnosis with demographic and clinical data of patients undergoing treatment

Variables	Speech-Language Pathology Diagnosis			
	Language Delay	Developmental Language Disorder	Language Disorder and Other	p-value
	N (%)	N (%)	N (%)	
Sex				
Male	4 (100.0)	1 (100.0)	11 (50.0)	
Female	0 (0.0)	0 (0.0)	11 (50.0)	0.121[1]
Total	4 (100.0)	1 (100.0)	22 (100.0)	
Medical Diagnosis				
ASD/ODD	2 (66.7)	0 (0.0)	7 (31.8)	
Down Syndrome	0 (0.0)	0 (0.0)	5 (22.7)	
Neurological Impairment	1 (33.3)	0 (0.0)	10 (45.5)	0.436[1]
Total	3 (100.0)	0 (0.0)	22 (100.0)	
Municipality				
Belo Horizonte	3 (75.0)	1 (100.0)	6 (27.3)	
Metropolitan region	1 (25.0)	0 (0.0)	12 (54.5)	
Other	0 (0.0)	0 (0.0)	4 (18.2)	0.266[1]
Total	4 (100.0)	1 (100.0)	22 (100.0)	

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Variables	Speech-Language Pathology Diagnosis			
	Language Delay	Developmental Language Disorder	Language Disorder and Other	p-value
	N (%)	N (%)	N (%)	
Age (years)				
Mean	3.50	4.00	7.19	
Median	4.00	4.00	6.00	0.042*²
Standard Deviation	1.92	1.00	3.11	
Age at diagnosis (years)				
Mean	2.50	3.00	4.43	
Median	2.50	3.00	4.00	0.210²
Standard Deviation	1.29	1.00	2.54	

¹Pearson's Chi-Squared Test; ²Kruskal-Wallis Test.
Abbreviation: N = Number of subjects, which varies due to missing data; ASD = Autism Spectrum Disorder; ODD = Oppositional Defiant Disorder; *= p-value≤0.05.

In addition, no statistical significance was found in the results in the association between speech-language pathology diagnosis and demographic and clinical data, with data from patients awaiting treatment. (Table 8)

Tabela 8. Associação entre diagnóstico fonoaudiológico com dados demográficos e clínicos de pacientes em espera

Variables	Speech-Language Pathology Diagnosis		
	Developmental Language Disorder	Language Disorder and Other	p-value
	N (%)	N (%)	
Sex			
Male	22 (64.7)	30 (66.7)	
Female	12 (35.3)	15 (33.3)	0.856¹
Total	34 (100.0)	45 (100.0)	
Medical Diagnosis			
ASD/ODD	9 (36.0)	6 (18.2)	
Down Syndrome	0 (0.0)	2 (6.0)	
Neurological Impairment	11 (44.0)	10 (30.3)	0.083¹
Speech/Language Disorder	5 (20.0)	15 (45.5)	
Total	25 (100.0)	33 (100.0)	
Municipality			
Belo Horizonte	12 (35.3)	20 (44.4)	
Metropolitan region	20 (58.8)	25 (55.6)	
Other	2 (5.9)	0 (0.0)	0.214¹
Total	34 (100.0)	45 (100.0)	
Age (years)			
Mean	6.53	6.95	
Median	6.00	7.00	0.060²
Standard Deviation	2.50	2.00	
Age at diagnosis (years)			
Mean	5.00	4.93	
Median	5.00	5.00	0.057²
Standard Deviation	2.64	2.10	

¹Pearson's Chi-Squared Test; ²Kruskal-Wallis Test.
Abbreviation: N = Number of subjects, which varies due to missing data; ASD = Autism Spectrum Disorder; ODD = Oppositional Defiant Disorders

Discussion

Given that 27 patients were receiving treatment and 86 were waiting for care at the time of data collection, this study showed that there was a great demand for speech-language pathology for cases of language disorders in the Speech-Language Pathology and Audiology outpatient clinic - oral language at the HC-UFMG. Similarly, there was another study that analyzed the management of waiting lines in a Speech-Language Pathology and Audiology Clinic-School, and which also reported a great demand for care long waiting lists in a generalized way in Speech-Language Pathology and Audiology Clinic-Schools, which may be associated to structural and political problems of the health system of each territory[7]. In addition, the large volume of patients referred from primary care to teaching clinics produces a high demand for care and contributes to the long waiting lines[8,9]. Likewise, the lack of criteria related to the levels of complexity of the diseases also results in case treatments that could be resolved in primary care and generates long waiting lines for care[10]. In this sense, child language intervention programs carried out in primary care, especially in the first three years of life, already show significant results for the early detection of language disorders, as well as for better child development and quality of life[11]. This proves the importance of health actions involved in primary care for the resolution of low-complexity cases, characterized by patients under three years of age, with language delay and absence of comorbidity, which is not the prevalent profile observed in the outpatient service of the present study, whose greatest demand refers to patients with greater complexity of medical and speech-language pathology diagnosis (neurological impairment and language disorder associated with other conditions) and a mean age of 6.70 years.

The long waiting time may also be related to the lack of speech-language pathology services and the availability of these services still being centralized in the capital.[12]. In this sense, the findings of this study about the place of residence showed that most patients come from the metropolitan region due to the lack of services in these regions and their concentration in the capital. In addition, when compared to other areas of Speech-Language Pathology and Audiology, there is a greater demand for treatments focused on Language, which may be related to the presence of cases, such as those of neurological origin, which have longer treatments and resolution[13].

It is noteworthy that the waiting time, from the request for care to availability, results in late interventions and consequent worsening of language disorders and therapeutic prognosis[14].

There are several solutions proposed to the long waiting time for speech therapy, such as epidemiological surveys, referrals, flexible schedules and definition of criteria[9]. The characterization of patients treated at the service and the development of research on the duration of care may contribute to the identification of demands, the adequacy of the service to the population and the definition of criteria aiming at greater agility of the conducts related to the care[10].

In addition, the implementation of time reference instruments, such as the IBT, contributes both to the definition of protocols and to the increase in the number of visits, reduction in the number of users waiting for assistance, in addition to the improvement in the quality of the service provided. Sessions at the oral language outpatient clinic of the study center are held weekly, lasting 40 minutes. In view of the results found, the researchers proposed the implementation of the IBT, considering the patient's diagnosis and external factors, and adapting the instrument to the reality of the outpatient clinic. Other studies have reported a significant variation in the duration and in the total number of speech-language pathology therapy sessions in children with phonological disorders according to severity, intervention approach and criteria adopted for discharge[15,16]. However, there is a lack of studies on time references in speech-language pathology, emphasizing the need to develop more research, in order to enable its adequacy and implementation in outpatient services.

The age group distributed between one and 14 years for patients in care and between one and 16 years for patients awaiting treatment, with a mean age of 6.7 and 6.74 years, respectively, is in line with the findings from another study in the area of Child Language, whose age range varied between 0 and 14 years and 11 months[10].

Despite not finding statistical significance, this study found a higher prevalence of child language disorders for males. This finding is also in line with results found in the literature[7,12-14,17], with percentages between 54.1% and 67.8%, which

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are explained by neurological and hormonal factors. According to other studies[12,13], boys are more susceptible to environmental influences due to their slower brain maturation when compared to girls. Language development is also associated with genetic, social and environmental factors, such as the way of upbringing and the linguistic patterns to which the child is exposed[10,12].

The findings of the study showed that the majority (40.7%) of the patients receiving care undergo follow-up with two medical specialties (neurologist, pediatrician, psychiatrist and/or genetics) concomitantly with speech-language pathology. In addition, 25.9% of patients are followed up with a medical specialty and another health professional (physiotherapist, occupational therapist, psychologist and/or nutritionist). Among these patients, only two (7.4%) do not undergo any follow-up with another specialty.

Therefore, from the moment the patient is placed in speech-language pathology therapy at the HC-UFMG, the student responsible for the care is able to refer him/her for follow-up in other specialties after the need is recognized. This is in line with the findings involving patients waiting for treatment, given that the majority (24.4%) of these patients do not undergo any follow-up at the HC-UFMG. However, it is necessary to expand the interdisciplinary clinical discussion involving the study center, since, as evidenced in a study that described the effects of interdisciplinary clinical evaluation in a case attended by a language investigation outpatient clinic in hearing disorders, the discussion of cases among professionals promotes an interdisciplinary view among academics and is based on the principles of comprehensiveness, equity and participation, which has a favorable impact on the patient progress[18].

As for the areas of Belo Horizonte, the findings showed that the regions with the highest demand (Venda Nova and Northeast) are regions with the highest concentration of a low-income population. According to data from the Municipal Government of Belo Horizonte, the Venda Nova region has a labor market participation rate of 57.5%, which is below the estimated municipal rate of 58.3%. In turn, the Northeast region has a higher rate (59.1%) compared to the municipal rate, but, together with the Venda Nova region, these two regions comprise two of the highest rates of total unemployment in the regions of Belo Horizonte, the latter being reported as one of the regions with the lowest participation in the labor market and the lowest level of income. The Venda Nova region is also the region with the highest population concentration of the poor group (15.8%), followed by the Barreiro (15.6%) and Northeast (13.6%) regions[20]. These data are in line with a study that investigated the association between socioeconomic factors and self-reported speech-language disorders, and found a correlation between social determinants, such as educational level and parental employment and family income, with speech-language disorders and complaints[19].

Regarding the age at which the patients received the speech-language pathology diagnoses, the findings show that the diagnoses were obtained at preschool age, which makes them late diagnoses, as well as the profile found in another study[17]. Speech-language pathology diagnosis allows the analysis of the abilities and inabilities that the patient is able, or not, to perform, thus being essential for the therapeutic process[17,20-22]. In this sense, the delay in defining the speech-language pathology diagnosis directly impacts the patient's prognosis, depending on the pathology presented, considering that the ideal age for diagnosis varies according to the disorder presented.

In many cases, parents of children with oral language disorders wait until they are four or five years old to seek for a speech-language pathology evaluation. The decision to wait for an age can be influenced by medical advice, having great weight for the parents' initiative, or it can come from the parents themselves, as they do not observe a lag in other areas of development[23]. However, timely diagnosis facilitates the language development process and contributes to the evolution of language skills, promoting important gains and favoring timely interventions[22-24]. In addition, late diagnosis is also one of the factors that generate school difficulties in the teaching-learning process presented by these children[22,24].

The prevalence of neurological impairment and language disorders associated with other conditions suggest an agreement between the main medical and speech-language pathology diagnoses found, and it is also in line with the findings of another study[10], which reported a presence of comorbidity of 76.9% and diseases of neurological origin as the most frequent associations.

It should be noted that inconsistencies were found in some data regarding the start date of treatment and the number of consultations, such as patients with longer treatment time and significantly fewer visits when compared to other patients with shorter treatment times and more visits. These incompatibilities may be associated with the difficulty of accessing the complete medical records of some patients in the institution or even the lack of registration. For this reason, inconsistent data were excluded from the sample. A study that analyzed the medical record in the medical records of a teaching clinic also reported the presence of incomplete medical records[25]. In this sense, it should be noted that the adequate health record is essential for understanding the demands of the assisted population, formulating diagnostic hypotheses, monitoring the patient, improving the quality of care provided, as well as for the development of research. In view of this, it is important to emphasize the importance of valuing the correct filling of the medical record, especially in university hospitals, such as professional training centers, through professional awareness, incentive and effective supervision.

Regarding the patient who has been in therapy for the longest time, the IBT of the Brazilian Federal Council of Speech-Language Pathology and Audiology[5] recommends an average of 96 consultations, and, in this case, the patient had already attended 191 consultations. Faced with the great demand for care, it is necessary to implement measures aimed at reorganizing the service in order to streamline the wait for care and expand care. However, professionals must be aware of the patient's context and the influence of personal, environmental and social factors, as they can impact treatment time, which may be the case with the aforementioned patient.

The association analysis found between the speech-language pathology diagnosis and the patient's age, in which patients with language disorders associated with other conditions had a higher median and mean age, may be associated with the late diagnosis of some conditions of neurological origin, or the ASD, whose diagnosis still tends to occur at five years of age[26,27].

However, the researchers believe that the main limitation of the study was the inclusion of patients from only one referral outpatient clinic, which limits sociodemographic and infrastructure comparisons. In addition, the absence or incompatibility of data observed in the medical records of the service may be related to the poor provision of data by the patients, the filling by the professional and the variation of nomenclature or clinical terms adopted by the different professionals involved in the care of the patients in the analysis.

Finally, this study contributes by promoting information and greater knowledge of the clinic, the demands of the population waiting for care, and the main needs of the target audience. This will contribute to the better organization of the service, the creation of protocols as initial assessment and reassessment procedures - some children wait more than two years after the assessment to start the treatment itself - number of sessions, discharge procedures and/or referrals for other services.

Conclusion

This study made it possible to trace the profile of patients from an oral language outpatient clinic, characterized by the prevalence of males, aged between one and 16 years, students from the public school system and from the metropolitan region and regions with low socioeconomic indicators. In addition, the profile shows that patients undergo medical follow-up concomitantly with speech-language pathology, with a diagnosis obtained at preschool age and a higher occurrence of language disorders associated with other conditions - of neurological origin and ASD.

In this way, the study is considered relevant when establishing the profile of the population served by an outpatient speech-language pathology service of a reference University Hospital, thus providing information related to the sociodemographic profile of the assisted population. Therefore, the study helps to better organize the service and improve the care provided according to the demands of users, in addition to streamlining care, making patient turnover greater and more comprehensive in order to significantly reduce the number of patients awaiting treatment.

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