

The speech-language pathology anamnesis according to the International Classification of Functioning, Disability and Health (ICF)

A Anamnese Fonoaudiológica segundo os preceitos da Classificação Internacional de Funcionalidade, Incapacidade e Saúde (CIF)

La Anamnesis Fonoaudiológica según los preceptos de la Clasificación Internacional de Funcionalidad, Incapacidad y Salud (CIF)

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Abstract

Objective: To identify, through the speech-language pathology anamnesis, the most frequent categories and components related to functionality according to the International Classification of Functionality, Disability and Health (ICF), in Language and Speech Disorders. **Methods:** a retrospective research was conducted in a partial collection of speech-language interview records from a school clinic, corresponding to 1,000 real cases from 2004 to 2013; then, after statistical calculation, a convenience sample of 110 protocols was defined. The records of the anamnesis were analyzed according to 362 level-two categories of the ICF and an arbitrary cut was performed to select the 30 most frequent categories of each component and among all, for the grouping. The Central Limit Theorem and the Law of Large

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Study presented at the XXIV Brazilian Congress of Speech-Language Pathology and Audiology: advances in diagnosis and intervention in Speech-Language Pathology and Audiology – São Paulo/SP (2016 Excellence in Speech-Language Pathology and Audiology Award)

Authors' contributions:

FCAP: study design and planning; data collection and analyzing/interpreting; writing and critical review.

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Received: 05/10/2017

Accepted: 15/05/2018

Numbers were used in the statistical treatment for the pre-sampling calculation and the Non-parametric Equality of Two Proportions test was used in the analysis of the frequency. **Results:** the most frequent categories were: b176 (mental function of sequencing complex movements), d310 (communicating with - receiving - spoken messages), d330 (speaking) and e410 (individual attitudes of immediate family members). Body functions and activities/participation were the most frequent components, while environmental factors and body structure were the less frequent ones. Meanwhile, “learning and speech” and “learning difficulties” were the complaints with more categories in the components. **Conclusion:** it was possible to identify recurrent ICF categories and components related to the functionality in the speech-language pathology anamnesis. Therefore, this result enhances the support and care of the speech-language pathologist with an individual’s health.

Keywords: ICF; Speech, Language Pathology and Audiology; Health Classifications; Language Development Disorders; Classification

Resumo

Objetivo: identificar, por meio da anamnese fonoaudiológica, quais as categorias e componentes mais frequentes relacionados à funcionalidade segundo os princípios da Classificação Internacional de Funcionalidade, Incapacidade e Saúde (CIF), em quadros de Transtornos de Linguagem e Fala. **Métodos:** pesquisa retrospectiva de acervo parcial de registros de entrevista fonoaudiológica de clínica-escola, correspondente a 1000 casos avaliados entre os anos de 2004 a 2013; após cálculo estatístico, constituiu-se uma amostra por conveniência de 110 protocolos. Analisaram-se os registros da anamnese de acordo com as 362 categorias do nível dois da CIF e considerou-se na seleção um corte, arbitrário, nas 30 primeiras categorias mais frequentes de cada domínio e entre todas elas, para o agrupamento. Para o tratamento estatístico adotou-se o Teorema do Limite Central e a Lei dos Grandes Números para o cálculo pré-amostral e o teste não-paramétrico Igualdade de Duas Proporções, na análise da frequência. **Resultados:** as categorias mais frequentes foram: b176 (funções mentais para a sequência de movimentos complexos), d310 (comunicar e receber mensagens orais), d330 (falar) e e410 (atitudes individuais de membros da família próxima). Os componentes mais frequentes foram função do corpo e atividades/participação, os menos frequentes, os fatores ambientais e estrutura do corpo. As queixas “aprendizagem e fala” e “dificuldades de aprendizagem” foram as que apresentaram mais categorias nos componentes. **Conclusão:** foi possível a identificação de categorias e componentes da CIF, relacionados à funcionalidade, recorrentes em relatos da anamnese fonoaudiológica. Deste modo, esse resultado amplia o olhar e o cuidado do fonoaudiólogo com a saúde do indivíduo.

Palavras-chave: CIF; Fonoaudiologia; Classificações em Saúde; Transtornos do Desenvolvimento da Linguagem; Classificação.

Resumen

Objetivo: identificar, por medio de la anamnesis fonoaudiológica, cuáles las categorías y los componentes más frecuentemente relacionados con la funcionalidad según los principios de la Clasificación Internacional de Funcionalidad, Incapacidad y Salud (CIF), en cuadros de Trastornos de Lenguaje y Habla. **Métodos:** investigación retrospectiva de acervo parcial de registros de entrevista fonoaudiológica de clínica-escuela, correspondiente a 1000 casos evaluados entre los años 2004 a 2013; después del cálculo estadístico, se constituyó una muestra por conveniencia de 110 protocolos. Se analizaron los registros de anamnesis de acuerdo con las 362 categorías del nivel 2 de la CIF y se consideró en la selección un corte, arbitrario, en las 30 primeras categorías más frecuentes de cada dominio y entre todas ellas, para la agrupación. Para el tratamiento estadístico se adoptó el Teorema del Límite Central y las Leyes de los Grandes Números para el cálculo pre-muestreo y la prueba no paramétrica Igualdad de Dos proporciones, para el análisis de la frecuencia. **Resultados:** las categorías más frecuentes fueron: b176 (funciones mentales para una secuencia de movimientos complejos), d310 (comunicar y recibir mensajes orales), d330 (hablar) y e 410 (actitudes individuales de miembros de la familia cercana). Los componentes más frecuentes fueron función del cuerpo y actividades / participación, los menos

frecuentes, factores ambientales y estructura del cuerpo. Las quejas “aprendizaje y habla” y “dificultades de aprendizaje” fueron las que presentaron más categorías en los componentes. **Conclusión:** fue posible una identificación de categorías y componentes del CIF, relacionados a la funcionalidad, recurrentes en relatos de la anamnesis fonoaudiológica. De este modo, el resultado amplía la mirada y el cuidado del fonoaudiólogo con la salud del individuo.

Palabras clave: CIF; Fonoaudiología, Clasificaciones en Salud, Trastornos del Desarrollo del Lenguaje, Clasificación

Introduction

The International Classification of Functioning, Disability and Health (ICF) provides a biopsychosocial model, whose general objective is to establish a common and standardized language for different areas in the humanities and health¹, as a tool for research, statistics, clinical, educational and social policy, as well as to be the basis for setting new instruments². It should be used in order to measure results on the well-being, quality of life, access to services and impacts of environmental factors on the health of each individual^{3,4,5,6,7}.

The ICF is organized into two parts: firstly, Functioning and Disability, which includes the following components: functions, body structures and activities/participation; and secondly: Contextual factors, including environmental and personal factors, while each component may be expressed in positive and negative terms. The functioning results from positive aspects (what an individual is capable of doing through activities, functional and structural integrities); while disability refers to the functional and structural deficiencies, as well as activity limitations and participation restrictions¹.

The scope of the classification, in personal and environmental aspects, assists the professional in understanding the extent and magnitude of the functioning or disability that a condition provides to the individual, using similar criteria and possibilities of comparisons⁸, which are focused on health, instead of the disease⁹.

In the performance of Speech-Language Pathology and Audiology in research, prevention, evaluation and speech-language therapy (Law no. 6965/1981), ICF is included in a broad mapping of each individual's condition, as well as of their interactions with the environment, education, work, leisure, access to health, care and evolution over time^{10,11}.

Systematic records on each individual are emphasized in the activity of the speech-language

pathologist and audiologist^{12,13,14}. The ICF favors the analysis of communication disorders and their impacts on both the individual and the society^{15,16}, which allow the professional to understand how patients are susceptible to environmental factors and indicating that the lack of information about these aspects may prevent effective actions.

Thus, the use of the International Classification of Functioning, Disability and Health (ICF) can assist the speech-language pathologist and audiologist in the definition of references regarding the incidence, prevalence and comorbidity of Human Communication Disorders. These reference, which are significant for the actions related to the speech-language pathology and audiology, impact on the planning of interventions for each case and also have direct consequences on public health and social policies^{17,18}. However, the lack of studies of this nature in Brazil should be emphasized, as well as the need for the speech-language pathology and audiology to cover the model and the dynamics of classification.

This work assumed the possibility of identifying aspects related to human functionality in the initial speech-language pathology and audiology interview, involving the body function and structure components, activities and participation and environmental factors of Speech and Language Disorders, through the ICF.

The study aimed to identify the most common categories related to functionality according to the principles of the International Classification of Functioning, Disability and Health (ICF), in the presence of Language and Speech Disorders.

Method

Retrospective, descriptive, exploratory and cross-sectional study under institutional record no. 761074/14 and approval at the Research Ethics Committee under no. 701,409/14.

Initially, the sample was composed by 1,000 protocols of cases taken care in speech-language pathology and audiology assessment and diagnosis of speech or language disorder, from the partial collection of the Language and Speech Area in the outpatient clinic service of the school clinic, between 2004 and 2013. Then, a statistical analysis (Central Limit Theorem and Law of Large Numbers) was performed for pre-sampling calculation, which resulted in the *n* indication of 110 protocols composing a sample for convenience.

As inclusion criteria, the study included the presence of information from the variables of identification (gender, age, education level, and profession) and from anamnesis reports (complaint, early history of the current complaint, family, constitutional, circumstantial and developmental history).

As exclusion criteria, the study removed protocols with incomplete records concerning variables and anamnesis reports, whose complaints referred to autism-specific conditions, disfluency, hearing disabilities, intellectual disabilities, attention deficit disorder and hyperactivity, voice changes and dysphagia.

The 110 anamnesis protocols analyzed were rated according to the ICF's 1 second-level code, based on a semi-directed interview, with open and directional questions that were standardized for all care services. To this end, the study considered the information provided in the anamnesis report coinciding with the categories in the components, namely, body functions and structure, activity and participation, and environmental factors. The analysis (which was conducted by an evaluator, expert in such rating) generated an individual profile of patients that was analyzed statistically according to the frequency of the categories in each of the components.

50% of the protocols studied were sorted for an agreement analysis by a blind evaluator according to the scores of the ICF categories (second-level code) of the anamnesis report consonant with the components, that is, body function and structure, activity and participation, and environmental factors. The agreement analysis was conducted for all components combined and then for each of the four separated, an agreement of 0.641 was obtained in the first case (which is regarded as good) (Figure 01).

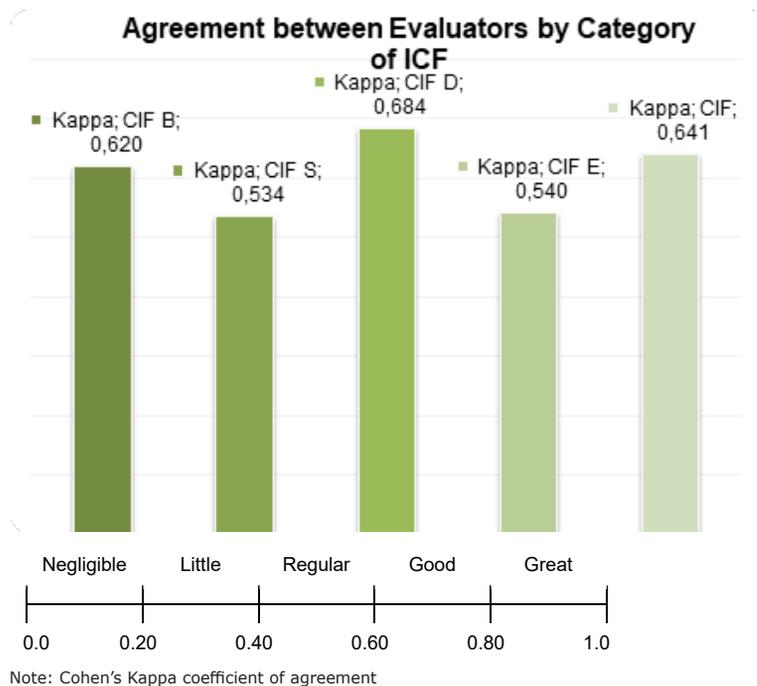


Figure 1. Agreement between Evaluators by Category of ICF

Then, it was decided to identify the categories present in each of the components from an arbitrary cut in the first 30 most recurrent and later, in the totality of the four components combined.

In addition, the frequency of complaints were identified and grouped in: 'learning and speech', 'learning difficulty', 'patient doesn't speak', 'patient speaks badly' and 'other'. The literal speech of the guardian was considered when grouping, as explained below, and then there was the choice of grouping such literal speeches into broader categories that covered the concerns:

1) Learning and Speech: "He/she has difficulty "speaking and writing", "he/she speaks badly and his/her learning is bad", "he/she has speech and language delay", "he/she speaks badly and is not able to follow the learning path".

2) Learning Difficulty: "he/she has difficulties at school", "he/she can't read and write", "he/she has difficulty reading and writing", "he/she can't read and can't write";

3) Patient Speaks Badly: "he/she can't speak the /r/", "he/she mumbles", "he/she can't pronounce words properly", "he/she speaks really badly", "he/she speaks like a baby";

4) Patient Doesn't Speak: "he/she hardly speaks", "he/she barely speaks anything", "he/she can't speak and can't walk", "he/she doesn't communicate", "he/she can't speak at all";

5) Other: "I listen to he/she, but I don't quite understand", "lack of attention", "he/she is different from other children", "he/she is not developing properly".

Next, it was verified which categories in each component of the ICF were present in each of the initial complaint groupings. The method established in this work was based on one of the stages to create core sets^{19,20,21,22,23}, which was conducted through a questionnaire with application of the ICF categories in patients with chronic diseases.

The Central Limit Theorem and the Laws of Large Numbers, with a 9.0% error, were adopted for the pre-sampling calculation. Cohen's Kappa coefficient of agreement was adopted to assess the degree of agreement: <0.200 as negligible; 0.210-0.400 as little; 0.410-0.600 as regular; 0.610-0.800 as good; ≥ 0.810 as great. The Non-parametric Equality of Two Proportions test was used to analyze the frequency of the categories. The following software were used in statistical analysis: SPSS V17, Minitab 16 and Excel Office 2010 and significance level of 0.05 (5%).

Results

Table 01 shows the distribution with the arbitrary cut of the 30 most common categories, according to all four components of ICF.

Table 1. Distribution of items on the four areas of ICF (30 most common)

ICF	N	%	P-value
b176 – Mental function of sequencing complex movements	108/110	98.2%	Subject
d310 – Communicating with - receiving - spoken messages	108/110	98.2%	Subject
d330 – Speaking	108/110	98.2%	Subject
e410 – Individual attitudes of immediate family members	108/110	98.2%	Subject
d155 – Acquiring skills	106/110	96.4%	0.408
e310 – Immediate family	106/110	96.4%	0.408
d710 – Basic interpersonal interactions	105/110	95.5%	0.249
b320 – Articulation functions	104/110	94.5%	0.150
d350 – Conversation	104/110	94.5%	0.150
d210 – Undertaking a single task	103/110	93.6%	0.089
d760 – Family relationships	103/110	93.6%	0.089
b126 – Temperament and personality functions	102/110	92.7%	0.052
b164 – Higher-level cognitive functions	101/110	91.8%	0.030
d910 – Community life	101/110	91.8%	0.030
b340 – Alternative vocalization functions	100/110	90.9%	0.018
b122 – Global psychosocial functions	99/110	90.0%	0.010
b167 – Mental functions of language	98/110	89.1%	0.006
d920 – Recreation and leisure	98/110	89.1%	0.006
d160 – Focusing attention	95/110	86.4%	0.001
d450 – Walking	95/110	86.4%	0.001
b140 – Attention functions	94/110	85.5%	<0.001
d750 – Informal social relationships	93/110	84.5%	<0.001
b770 – Gait pattern functions	92/110	83.6%	<0.001
b152 – Emotional functions	91/110	82.7%	<0.001
b156 – Perceptual functions	90/110	81.8%	<0.001
b510 – Ingestion functions	89/110	80.9%	<0.001
d110 – Watching	89/110	80.9%	<0.001
b250 – Taste function	87/110	79.1%	<0.001
b117 – Intellectual functions	84/110	76.4%	<0.001
b147 – Psychomotor functions	82/110	74.5%	<0.001

Note: Non-parametric Equality of Two Proportions test; p-values in red are statistically significant; while p-values in blue are not without statistical significance. The p-values comparing each ICF always to the most prevalent as Reference (Ref.) are presented in the last column of each table.

Among the 30 most common categories, there are 15 categories related to function, 13 categories related to activities/participation and two categories related to environmental factors.

Among the 362 categories surveyed, the most common (with an occurrence of 98.2%), were regarded as references: b176 - Mental function of sequencing complex movements; d310 - Communicating with - receiving - spoken messages; d330 - Speaking; e410 - Individual attitudes of immediate family members.

Tables 02, 03, 04 and 05 describe the distribution of categories in each ICF component: body functions, body structure, activities and participation and environmental factors.

In the body function component (Table 02), it was observed a predominance of the following chapters: mental functions (b1) and voice and speech functions (b3), with the following categories: b176 - Mental function of sequencing complex movements (98.2%); b320 – Articulation functions (94.5%); b126 – Temperament and personality functions (92.7%).

Table 2. Distribution of the items in the body function component (ICF b) - 30 most frequent

ICF b	N	%	P-value
b176 - Mental function of sequencing complex movements	108/110	98.2%	Subject
b320 - Articulation functions	104/110	94.5%	0.150
b126 - Temperament and personality functions	102/110	92.7%	0.052
b164 - Higher-level cognitive functions	101/110	91.8%	0.030
b340 - Alternative vocalization functions	100/110	90.9%	0.018
b122 - Global psychosocial functions	99/110	90.0%	0.010
b167 - Mental functions of language	98/110	89.1%	0.006
b140 - Attention functions	94/110	85.5%	<0.001
b770 - Gait pattern functions	92/110	83.6%	<0.001
b152 - Emotional functions	91/110	82.7%	<0.001
b156 - Perceptual functions	90/110	81.8%	<0.001
b510 - Ingestion functions	89/110	80.9%	<0.001
b250 - Taste function	87/110	79.1%	<0.001
b117 - Intellectual functions	84/110	76.4%	<0.001
b147 - Psychomotor functions	82/110	74.5%	<0.001
b230 - Hearing functions	80/110	72.7%	<0.001
b130 - Energy and drive functions	77/110	70.0%	<0.001
b760 - Control of voluntary movement functions	74/110	67.3%	<0.001
b755 - Involuntary movement reaction functions	68/110	61.8%	<0.001
b144 - Memory functions	66/110	60.0%	<0.001
b160 - Thought functions	56/110	50.9%	<0.001
b440 - Respiration functions	56/110	50.9%	<0.001
b134 - Sleep functions	53/110	48.2%	<0.001
b210 - Seeing functions	39/110	35.5%	<0.001
b260 - Proprioceptive function	30/110	27.3%	<0.001
b114 - Orientation functions	27/110	24.5%	<0.001
b450 - Additional respiratory functions	27/110	24.5%	<0.001
b180 - Experience of self and time functions	22/110	20.0%	<0.001
b280 - Sensation of pain	20/110	18.2%	<0.001
b172 - Calculation functions	19/110	17.3%	<0.001

Note: Non-parametric Equality of Two Proportions test; p-values in red are statistically significant; while p-values in blue are not without statistical significance. The p-values comparing each ICF always to the most prevalent as Reference (Ref.) are presented in the last column of each table.

In Table 03, which describes the body structure component, the categories are concentrated in eyes/ears-related structures (s2) and voice- and speech-related structures (s3), namely: S250 - Structure of

middle ear (48.2%); S240 - Structure of external ear (44.5%); S260 - Structure of inner ear (42.7%); S320 - Structure of mouth (40%).

Table 3. Distribution of the items in the body structure component (ICF s) - 30 most frequent

ICF s	N	%	P-value
s250 – Structure of middle ear	53/110	48.2%	Subject
s240 – Structure of external ear	49/110	44.5%	0.589
s260 – Structure of inner ear	47/110	42.7%	0.417
s320 – Structure of mouth	44/110	40.0%	0.222
s110 – Structure of brain	20/110	18.2%	<0.001
s310 – Structure of nose	15/110	13.6%	<0.001
s330 – Structure of pharynx	11/110	10.0%	<0.001
s210 – Structure of eye socket	10/110	9.1%	<0.001
s830 – Structure of nails	10/110	9.1%	<0.001
s220 – Structure of eyeball	8/110	7.3%	<0.001
s610 – Structure of urinary system	8/110	7.3%	<0.001
s430 – Structure of respiratory system	7/110	6.4%	<0.001
s630 – Structure of reproductive system	6/110	5.5%	<0.001
s230 – Structures around eye	5/110	4.5%	<0.001
s410 – Structure of cardiovascular system	5/110	4.5%	<0.001
s530 – Structure of stomach	5/110	4.5%	<0.001
s750 – Structure of lower extremity	5/110	4.5%	<0.001
s340 – Structure of larynx	4/110	3.6%	<0.001
s520 – Structure of oesophagus	4/110	3.6%	<0.001
s730 – Structure of upper extremity	4/110	3.6%	<0.001
s810 – Structure of areas of skin	4/110	3.6%	<0.001
s130 – Structure of meninges	3/110	2.7%	<0.001
s540 – Structure of intestine	3/110	2.7%	<0.001
s740 – Structure of pelvic region	3/110	2.7%	<0.001
s760 – Structure of trunk	3/110	2.7%	<0.001
s120 – Spinal cord and related structures	2/110	1.8%	<0.001
s420 – Structure of immune system	2/110	1.8%	<0.001
s498 – Structures of the cardiovascular, immunological and respiratory systems, other specified	2/110	1.8%	<0.001
s599 – Structures related to the digestive, metabolic and endocrine systems, unspecified	2/110	1.8%	<0.001
s620 – Structure of pelvic floor	2/110	1.8%	<0.001

Note: Non-parametric Equality of Two Proportions test; p-values in red are statistically significant; while p-values in blue are not without statistical significance. The p-values comparing each ICF always to the most prevalent as Reference (Ref.) are presented in the last column of each table.

In the activities and participation component, the most frequent categories were: d310 - Communicating with - receiving - spoken messages (98.2%); d330 - Speaking (98.2%); d155 - Acquiring skills (96.4%); d710 – Basic interpersonal in-

teractions (95.5%); d350 – Conversation (94.5%). Among the learning and knowledge application, chapters (d1), communication and personal relationships/interactions (d7) (Table 04).

Table 4. Distribution of the items in the activity and participation component (ICF d) - 30 most frequent

ICF d	N	%	P-value
d310 - Communicating with - receiving - spoken messages	108/110	98.2%	Subject
d330 - Speaking	108/110	98.2%	Subject
d155 - Acquiring skills	106/110	96.4%	0.408
d710 - Basic interpersonal interactions	105/110	95.5%	0.249
d350 - Conversation	104/110	94.5%	0.150
d210 - Undertaking a single task	103/110	93.6%	0.089
d760 - Family relationships	103/110	93.6%	0.089
d910 - Community life	101/110	91.8%	0.030
d920 - Recreation and leisure	98/110	89.1%	0.006
d160 - Focusing attention	95/110	86.4%	0.001
d450 - Walking	95/110	86.4%	0.001
d750 - Informal social relationships	93/110	84.5%	<0.001
d110 - Watching	89/110	80.9%	<0.001
d815 - Preschool education	81/110	73.6%	<0.001
d240 - Handling stress and other psychological demands	80/110	72.7%	<0.001
d115 - Listening	79/110	71.8%	<0.001
d530 - Toileting	77/110	70.0%	<0.001
d230 - Carrying out daily routine	64/110	58.2%	<0.001
d315 - Communicating with - receiving - nonverbal messages	62/110	56.4%	<0.001
d510 - Washing oneself	62/110	56.4%	<0.001
d163 - Thinking	61/110	55.5%	<0.001
d320 - Communicating with - receiving - formal sign language messages	61/110	55.5%	<0.001
d355 - Discussion	61/110	55.5%	<0.001
d340 - Producing messages in formal sign language	61/110	55.5%	<0.001
d540 - Dressing	61/110	55.5%	<0.001
d550 - Eating	60/110	54.5%	<0.001
d175 - Solving problems	59/110	53.6%	<0.001
d445 - Hand and arm use	56/110	50.9%	<0.001
d820 - School education	56/110	50.9%	<0.001
d435 - Moving objects with lower extremities	55/110	50.0%	<0.001

Note: Non-parametric Equality of Two Proportions test; p-values in red are statistically significant; while p-values in blue are not without statistical significance. The p-values comparing each ICF always to the most prevalent as Reference (Ref.) are presented in the last column of each table.

Regarding the environmental factors (Table 05) a higher incidence was observed in the following categories: e410 – Individual attitudes of immediate

family members (98.2%); e310 – Immediate family (96.4%), respectively, from support/relationships (e3) and attitudes (e4) chapters.

Table 5. Distribution of the items in the environmental factors component (ICF e) - 30 most frequent

ICF e	N	%	P-value
e410 – Individual attitudes of immediate family members	108/110	98.2%	Subject
e310 – Immediate family	106/110	96.4%	0.408
e460 – Societal attitudes	69/110	62.7%	<0.001
e320 – Friends	65/110	59.1%	<0.001
e420 – Individual attitudes of friends	59/110	53.6%	<0.001
e425 – Individual attitudes of acquaintances, peers, colleagues, neighbors and community members	59/110	53.6%	<0.001
e240 – Light	54/110	49.1%	<0.001
e325 – Acquaintances, peers, colleagues, neighbors and community members	54/110	49.1%	<0.001
e530 – Utilities services, systems and policies	54/110	49.1%	<0.001
e450 – Individual attitudes of health professionals	47/110	42.7%	<0.001
e140 – Products and technology for culture, recreation and sport	35/110	31.8%	<0.001
e430 – Individual attitudes of people in positions of authority	30/110	27.3%	<0.001
e315 – Extended family	28/110	25.5%	<0.001
e580 – Health services, systems and policies	26/110	23.6%	<0.001
e330 – People in positions of authority	25/110	22.7%	<0.001
e415 – Individual attitudes of extended family members	18/110	16.4%	<0.001
e355 – Health professionals	12/110	10.9%	<0.001
e165 – Assets	10/110	9.1%	<0.001
e345 – Strangers	10/110	9.1%	<0.001
e585 - Education and training services, systems and policies	10/110	9.1%	<0.001
e575 - General social support services, systems and policies	9/110	8.2%	<0.001
e125 – Products and technology for communication	8/110	7.3%	<0.001
e440 – Individual attitudes of personal care providers and personal assistants	7/110	6.4%	<0.001
e555 - Associations and organizational services, systems and policies	7/110	6.4%	<0.001
e445 – Individual attitudes of strangers	6/110	5.5%	<0.001
e455 – Individual attitudes of other professionals	6/110	5.5%	<0.001
e340 – Personal care providers and personal assistants	4/110	3.6%	<0.001
e350 – Domesticated animals	4/110	3.6%	<0.001
e525 - Housing services, systems and policies	4/110	3.6%	<0.001
e535 - Communication services, systems and policies	4/110	3.6%	<0.001

Note: Non-parametric Equality of Two Proportions test; p-values in red are statistically significant; while p-values in blue are not without statistical significance. The p-values comparing each ICF always to the most prevalent as Reference (Ref.) are presented in the last column of each table.

Chart 1 describes the presence or absence of each of the ICF components to the grouping of complaints made, considering an occurrence of 95%. The body function (b) and activities and participation (d) components occurred for all groups. Environmental factors (e) were mentioned

in complaints concerning the following: “Learning Difficulty”, “Patient Doesn’t Speak”, “Patient Speaks Badly” and “Other”. On the other hand, the body structure (s) component did not occur for the selection and division performed.

Chart 1. Listing of each of the ICF components, according to the grouping by complaint

	Component b (body functions)	Component s (body structures)	Component d (activities and participation)	Component e (environmental factors)
Complaint 01 - Learning and Speech	Present	Absent	Present	Absent
Complaint 02 - Learning Difficulty	Present	Absent	Present	Present
Complaint 03 - Patient Speaks Badly	Present	Absent	Present	Present
Complaint 04 - Patient Doesn't Speak	Present	Absent	Present	Present
Complaint 05 - Other	Present	Absent	Present	Present

Discussion

The study was limited by a retrospective anamnesis analysis. However, and facing this aspect, we tried to select a statistical sample for convenience (100) among the 1000 records.

In addition, the identification of ICF categories performed, based on one of the stages to create core sets, was considered limited to the grouping of complaints in an initial interview related to speech-language pathology.

In the routine of the services from which the material was obtained for this study, the anamnesis protocol is a procedure involving individual and face-to-face interview, focused on the reasons and on the comfort of the participants²⁴. The anamnesis interview is considered semi-directed as it is based on open-ended questions, which are formulated from the reason for the consultation or complaint. Such a clinical procedure aims to guide the narrative of the participant, so that the speech-language pathologist can measure the reason for the consultation or complaint, and understand the chronology of the development of the subject and the factors involved in this development. The functional differences, circumstantial characteristics and requirements, and sociocultural diversity should be analyzed in order to achieve the specificity. The anamnesis is an important mediator to reach a diagnosis²⁵, "*since it has a specific purpose and through it, it's possible to reach the structural basis to obtain the required data*".

The overall knowledge of the possible risks and motives for the development of a language pathology should be studied and recognized²⁶, since such conditions are also determinant in the aspects

related to socialization and learning. Therefore, the results of this study comply with other findings²⁶ that point out that understanding the complexity of language involves recognizing the correlations between the physical, motor and cognitive, relational, auditory and linguistic aspects of the individual and their circumstances.

Understanding an individual's language deviance involves both the study of their own behavior, in different situations over time, and the typical behavior and processes observed in most individuals²⁶. The ICF and the analysis of its most frequent categories assist the speech-language pathologist to understand how the language pathology is impacting the subject's functionality, thus suggesting the adoption of the classification as an initial codification measure of the evaluated cases and also as a strategy to compare evolutionary data.

With respect to body functions, there was a predominance of the occurrence of mental functions, followed by voice and speech functions and, finally, functions related to the movement. Auditory and gustatory functions also are among the thirty most frequent categories of the list.

The thorough speech-language pathology and audiology research is important on all aspects of child development, as according to research²⁷ there is a motor processing that involves the planning of the speech motor action and the execution of the articulatory gesture necessary for the production of the target sound. Verbal message must be organized at the central level in order to allow neuromuscular execution. Then, activities of the central nervous system should be combined with the activities of the peripheral nervous system in order to regulate and execute speech motor programs, which are re-

sponsible for the activation of the muscles involved in breathing, phonation, resonance and articulation. Thus, the importance of evaluating the body's functions at the global level in the individual was observed, instead of only observing the aspects specifically related to speech-language pathology and audiology.

With respect to the frequency of the body structure component, it was observed that the chapter two of this group (eyes, ears and related structures) was the most frequent, followed by structures related to voice and speech. This finding is in line with the information from the day-to-day clinical speech-language pathology and audiology, during which speech and language disorders are rarely related to body structure problems, and imaging tests to locate internal damage are rare.

The activities and participation components, which are among the more balanced frequency of occurrence, are mainly related to chapter one and three of this group (that is, basic learning and communication), showing how these conditions impact in the individual's daily life. Thus, there is a need to look at the planning of actions and behaviors focused on the subject's functionality.

The environmental factors that most occurred are related to chapters three and four (namely, support/relationships and attitudes), probably due to the fact that more than half of the sample is composed of school-age children, dependent on caregivers. However, those environmental factors were one of the less mentioned components over the anamnesis protocols related to speech-language pathology and audiology. The environmental factors compose the physical, social and attitudinal environment in which people live and conduct their lives. This component includes essential elements to achieve the full social inclusion of the disabled person and it should be identified early in the initial interview stage, which should seek for knowledge about the characteristics that can impact in the subjects' functionality, so that it may be possible to reduce the impact of these barriers in the rehabilitation process.

These results are in line with another study³ that highlights the importance of including contextual (environmental and personal) factors in the speech-language perspective, emphasizing the importance of the interaction between the dimensions and these factors in the disability experience. It should be noted the patients' susceptibility to

environmental factors and the health professional's need to understand the entire health-disease process of this subject⁽¹²⁾.

The option adopted in this study to identify the ICF categories for each group of complaints presented by the subjects aimed at setting the main categories of the classification that are present in the speech-language pathology and audiology anamnesis.

There is greater number of categories related to "Learning and Speech" (21), "Learning Difficulties" (16) and "Patient Speaks Badly" (15), followed by "Patient Doesn't Speak" (08) and "Other" (15). There were no categories related to body structure in the complaints presented. This performance may be related to the directed and pre-defined settings of the anamnesis conducted.

The 95% frequency was considered for the characterization and proposition by general complaint, whilst body function and activities/participation were the most frequent components, while environmental factors were the least frequent.

The literature discusses whether biological, psychological and social factors impact with children's cognitive and language development.²⁸ The combination of these factors in typical development provides the acquisition and development of the motor, linguistic and cognitive abilities. Thus, studies that evaluate pathological conditions, especially from a structured and semi-directed report, allow observing the association of these areas and the impact that a certain factor can trigger in the child's language development.

It is known that Communication Disorders include language, speech and communication deficits. The study of these disorders should bear in mind the cultural and linguistic context of the subject and the category includes: language disorder, speech disorder, fluency disorder, social communication disorder and other communication disorder, whether it is specified or not²⁹.

Specific Speech and Language Development Disorders are conditions in which language development and acquisition regular procedures are compromised from the early stages of development, and they include speech articulation disorder, expressive language disorder, receptive language disorder and others³⁰.

There is a predominance of aspects related to the body structure and function among the signs described above, in which each diagnosis

of human communication disorders comprises a particular set. It should be noted in this study that elements related to activities and participation were also identified in an analysis of anamnesis reports through ICF categories.

It may be thought that the dynamics while conducting the interviews and also the wide nature of the anamnesis report model, which were adopted as guidelines of the hospital-school service, may have created an opportunity for reports including elements beyond the body's issues²⁶.

Thus, according to the ICF principles, future studies of data relationships that also involve speech-language pathology and audiology assessment and diagnosis of speech and language disorders could be projected, since there is a worldwide tendency to use the classification in health field, as well as its model in material design and diagnostic testing. Thus, the adoption of this significant tool is important in the speech-language pathologist's daily routine, both in the clinical area and in public health.

Conclusion

This study allowed the identification, in reports of speech-language pathology and audiology anamnesis concerning Speech and Language Disorders, of the presence and frequency of categories related to the International Classification of Functioning, Disability and Health - ICF, in the body function/structure, activity/participation and environmental factors components.

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