

Original articles

Impact of the speech sound disorders: family and child perception

Simone Nicolini de Simoni¹<https://orcid.org/0000-0002-3764-4171>**Iana Caroline Leidow**²<https://orcid.org/0000-0002-2174-9104>**Deisi Luana Britz**²<https://orcid.org/0000-0003-4815-8192>**Denis Altieri de Oliveira Moraes**³<https://orcid.org/0000-0002-2059-5481>**Márcia Keske-Soares**⁴<https://orcid.org/0000-0002-5678-8429>

¹ Universidade Federal de Santa Maria, Programa de Graduação em Distúrbios da Comunicação Humana, Santa Maria, Rio Grande do Sul, Brasil.

² Universidade Federal de Santa Maria, Santa Maria, Rio Grande do Sul, Brasil.

³ Universidade Federal de Santa Maria, Departamento de Estatística, Santa Maria, Rio Grande do Sul, Brasil.

⁴ Universidade Federal de Santa Maria, Departamento de Fonoaudiologia, Santa Maria, Rio Grande do Sul, Brasil.

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ABSTRACT

Objective: to verify both the family's and the children's perception of the impact of the phonological type of speech sound disorders.

Methods: this is an exploratory qualitative-quantitative prospective research of a Speech-Language Pathology Service of a Higher Education Institution. Sixty-four persons took part in the study, thirty-two being children (nineteen boys and thirteen girls), their age ranging from four years and one month to eight years and nine months, diagnosed with the phonological type of Speech Sound Disorder. Besides them, thirty-two adults, either their parents or guardians, participated in the study. The results were organized by degree of association - strong association, average association and average association with aspects of speech.

Results: regarding the parents' perception, the impact of Speech Sound Disorder on their children is related to interpersonal relationships and to emotional behavior, besides school issues. As for the children's perception, the results demonstrated that the biggest impact of irregular speech takes place in unfamiliar environments. In addition to that, they have shown that isolation and the development of feelings such as frustration, shyness and low self-esteem are common among these children, making their relationship with other people difficult.

Conclusion: the perception of parents and children regarding speech-related difficulties should be studied in order to reach both a better understanding and a more adequate treatment of Speech Sound Disorders.

Keywords: Speech, Language and Hearing Sciences; Speech Sound Disorder; Communication; Children

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Mailing address:

Simone Nicolini de Simoni
Rua Antero Coronel Correa de Barros 596,
apto 203
CEP: 97010-120 - Santa Maria, Rio Grande
do Sul, Brasil
E-mail: simonedesimoni@hotmail.com

INTRODUCTION

When children are born, they are included in a communicative environment that will provide the first interactions and exchanges of affection¹. The concept of communication in the broader health concept involves biological abilities related to mental and social contexts. Thus, considering the typical development and the adequate chronology of children's linguistic components, they should develop the task of receiving, elaborating and transmitting messages of meaningful verbal content. If a child doesn't develop this specific linguistic task, and the degree of irregularity prevails so that it hinders communicative efficiency, there being no affecting organic or chronological issues, it is then defined as a communication disorder².

In regard to oral communication, it is known that the acquisition of oral language takes place gradually - more specifically the phonologic acquisition, in which the speech sounds are acquired. In Brazilian Portuguese (BP), the typical phonologic control - that is, the acquisition of all speech sounds without any incidents - is achieved by the age of five³. Throughout the time in which speech sounds are developed, some difficulties might happen, as, for example, substituting one sound for another, omitting a sound, having a hard time articulating, etc^{4,5}. Whenever there is a major disparity in the phonologic acquisition in relation to age and to the acquisition of phonemes, the child is said to have Speech Sound Disorder (SSD). Such disorders may be both or either of two conditions: difficulties resulting from a linguistic basis (phonological disorders) and difficulties related to articulation (phonetic disorders)^{1,6,7}.

The phonological types of SSD are characteristic, for these children switch sounds when they speak, but don't have evident organic alterations⁸. Such switching occurs during the time of phonologic acquisition, usually between four and eight years old, approximately⁹. The etiology of the phonological types of SSD is still unknown; however, there is a research which presents some influencing factors, such as: gender, age, otitis and auditory issues, respiratory alterations and changes in the family environment¹⁰. Also, another research points to the fact that being an only child is a risk factor¹¹. These data reveal the importance of the initial interview, characterized as an interventional anamnesis, besides the knowledge of the history of each case and the family structure of the child, since some factors may be influencing the child's SSD⁷⁻¹⁰.

Diagnosis of the phonological type of SSD demands that the professional have previous knowledge of the typical patterns of phonologic acquisition, as well as of the adequate assessing tools to indicate a diagnosis hypothesis. Since the consequences of SSD affect the child as well as the family and those close to them, knowing the parents' and the child's opinion regarding the speech problem also helps in planning and conducting the therapy. However, there is a lack of tools and questionnaires in researches in the field of speech-language pathology which would provide such parents' and children's perception about difficulties in speech^{5,12}.

The questionnaire called Speech Participation and Activity Assessment of Children, a.k.a. SPAA-C¹³, is a complementary assessment tool that makes possible to know the impact that SSD causes in the child. It makes use of questions to the child, parents, siblings, friends, teachers and other close acquaintances, mainly seeking for an answer as to how the difficulties caused by this oral communication limitation are faced by them¹⁴.

The questionnaire was developed in the structures composed by the International Classification of Functioning, Disability and Health: Children and Youth Version (ICF-CY)¹⁵, which in turn is part of the World Health Organization Family of International Classifications - WHO-FIC. Therefore, it is the universal reference framework adapted by WHO to describe, assess and measure health and inability both on individual and populational level. Besides providing a holistic basis for the understanding of the development of speech, it allows for the improvement of knowledge in other fields of healthcare regarding these impairments, being thus important for the multidisciplinary assessment and treatment¹³.

International studies^{14,16} have described the impact of qualitative researches aiming to characterize human interactions, making the study of linguistic experiences and phenomena possible. With such perception, interviews were carried out using SPAA-C, seeking to promote the participation of professionals in the difficulties related to speech. The results have demonstrated how socio-emotional characteristics, social limitations and educational factors influence these children. The phenomenological qualitative analyses have indicated as main reports the frustration of the children and the effort of parents in the attempt to understand them. Therefore, it has been concluded that a successful communication depends on the ability

of the speakers and listeners and on reciprocal support between them.

The study is justified by the lack of questionnaires in Brazil related to the impacts caused by SSD, particularly when it is considered that this sort of complementary assessment contributes to the attention given to each case/patient, helping with feedback to the speech-language pathologist, as well as for evaluating the need of a referral to a multi-professional team. In addition to that, the questionnaire proves to be an efficient tool that may, along with other tools and observations in the assessment process, contribute to a better understanding of the child's difficulties, so helping in the awareness and behavior of the family.

With this in mind, there is a hypothesis that SSD causes an impact on communicative, emotional, learning and social spheres. Furthermore, it is expected that there will be greater significance in the questionnaire answered by the children due to its closed-ended questions and the illustrative answer options.

Thus, the aim of this research was to verify the family's and the child's perception of the impact of the phonological type of SSD.

METHODS

This research has been properly registered at the Research Ethics Committee of the Federal University of Santa Maria and has been approved under the checking number 719.011. It is an exploratory qualitative-quantitative prospective research.

Sixty-four individuals took part in the study, thirty-two of which were either parents or guardians and the other thirty-two were children previously diagnosed with phonological types of SSD. Nineteen of the children were boys and thirteen were girls, their age ranging from four years and one month to eight years and nine months. These children were either on the waiting list or being taken care of at the Speech-Language Pathology Service of the Higher Education Institution.

The children's parents and guardians signed an informed consent authorizing their participation in this research. The children themselves freely agreed to participate on the research, verbally acquiescing.

Finally, the researchers committed themselves to make public the collected data and results only in scientific environments, and to keep absolutely secret the participants' identity, as it has been made plain in the informed consent.

As for inclusion criteria, the children would have to show understanding of language in accordance

with their age as well as auditory threshold previously assessed to be within normal range. Based on information provided by their relatives, children who presented anatomic or physiologic abnormalities in the speech production mechanism were excluded from the samples.

The procedures were initiated with a meeting which parents and guardians attended for the initial interview and signing of the informed consent. After that, the children underwent the following procedures.

Speech evaluation was carried out by means of a tool for assessing phonological awareness (*INFONO*, in Portuguese)¹², which was collected through recording of spontaneous naming. The *INFONO* is a piece of software that evaluates nineteen consonants of BP in the various syllable structures, plus the possible consonant clusters. Following the data collection, contrastive analysis was carried out; also, the severity of the phonological type of SSD was calculated based on the Percentage of Consonants Correct - Revised (PCC - R), proposed by Shriberg et al. (1997)¹⁶, which doesn't consider distortions made by children. Regarding the severity of the phonological type of SSD, it may be classified as: slight deviation (85-100%), slight-to-moderate deviation (65-85%), severe-to-moderate deviation (50-65%) and severe deviation (<50%)^{17,18}.

After having calculated the severity, the children were distributed in groups according to their severity. Seven children (five boys and two girls) were grouped together as having severe or severe-to-moderate deviation; they were classified as "Severe". The other twenty-five children (fourteen boys and eleven girls) presented either slight or slight-to-moderate deviation, and they were grouped together and classified as "Slight".

All the children were being assisted by the Speech-Language Pathology Service; therefore, assessments related to orofacial motor control and to hearing were carried out only in the cases which had no such evaluation data in their medical records.

The Speech Participation and Activity Assessment of Children (SPAA-C), proposed by McLeod (2004)¹³, was translated into BP as "*Avaliação da Participação e Atividade de Fala de Crianças*". It was then translated back into English by two people proficient in English. Originally, SPAA-C adds up to eighty-two questions, divided into those for the children, their parents, brothers, friends, teachers and other close acquaintances. In this study, the questionnaire was applied only to the children and their parents or guardians, making

use of forty-seven questions. The “Questions for the child” are those numbered 1 to 14 and 25 to 27, in a total of seventeen open-ended questions, performed orally. There are also the ones numbered 15 to 24, totaling ten, which are closed-ended multiple-choice questions. To these, the child answered whether he/she felt “happy”, “more or less”, “sad”, “other feeling” or “doesn’t know”. The “Questions for the parents” add up to twenty, to which open-ended oral answers were

given, seeking for considerations and reflecting of the parents. It is important to point out that the interviews were made individually, while the children were in treatment or evaluation at the Service. All the interviews were recorded and then transcribed for analysis. The answers were inserted in an Excel spreadsheet and then exported to the R Environment for analysis.

The questions asked to the parents and children are found in Figure 1.

QUESTIONS FOR THE PARENTS	
Your child	
Q1	Tell me about your son/daughter.
Q2	What does your son/daughter enjoy doing?
Q3	What is important for your son/daughter and your family?
Q4	What would be the weekly routine of activities? What would be the people your son/daughter would talk to in a regular routine week?
Q5	Is he/she invited to play in other children’s homes or invited to birthday parties?
Q6	Is there any specific thing that makes your son/daughter particularly sad or aggressive?
Your son/daughter speech	
Q7	Describe your son’s/daughter’s speech.
Q8	What difference do you notice regarding your son’s/daughter’s speech in comparison to their siblings’ or friends’ speech, in relation to:
Q8(a)	Amount of speech.
Q8(b)	How he/she is understood.
Q8(c)	Context and people whom he/she feels comfortable to speak with.
Q8(d)	Context and people whom he/she feels uncomfortable to speak with.
Q9	When your son/daughter is not understood:
Q9(a)	What does he/she do?
Q9(b)	What do you do to help?
Q10	What is your son/daughter good enough at, that doesn’t require him/her to speak properly?
The impact of your son’s/daughter’s speech difficulty	
Q11	What is the greatest impact of your son’s/daughter’s speech difficulty at home and at school?
Q12	How does the speech difficulty limit him/her?
Q13	Has he/she ever been excluded from social situations because of speech?
Q14	What kind of things does your family do to assure that your son/daughter be socially included?
Q15	How conscious/frustrated is he/she regarding his/her speech difficulty? Does he/she feel ashamed of his/her speech?
Q16	Have you noticed different levels of confidence and communication skills in situations like: at meals, at school, with friends, with his/her grandparents or with other family members, during leisure and extracurricular activities (for example, swimming classes...)?
Q17	How do other people react to your son/daughter?
Q18	What do other people say to you about your son’s/daughter’s speech?
Q19	Do you feel frustrated/ashamed of your son’s/daughter’s speech?
Q20	What goals would you like to reach regarding your son’s/daughter’s communication skills?

QUESTIONS FOR THE CHILDREN	
Q1	What are your favorite activities? At home? At school/preschool?
Q2	What games/sports do you play?
Q3	What are you good at?
Q4	Whom do you like to play with?
Q5	If your mom or dad said: "What do you want to do?", what would you answer and who would you take with you?
Your friends	
Q6	Whom do you like to play with?
Q7	What's fun for you at school/preschool?
Q8	What's the best thing about school/preschool?
Q9	What's difficult for you at school/preschool?
Q10	Have you ever been provoked at school/preschool?
Your talk (speech)	
Q11	Whom do you like to talk to?
Q12	When do you like to talk to people?
Q13	When don't you like to talk to people?
Q14	Do you think your speech is different from that of the other children?
Q15	How do you feel when you talk?
Q16	How do you feel when you talk to your best friend?
Q17	How do you feel when you talk to your brother/sister?
Q18	How do you feel when you talk to your parents?
Q19	How do you feel when you talk to your teacher?
Q20	How do you feel when your teacher asks a question?
Q21	How do you feel when you speak to the whole class?
Q22	How do you feel when you play with children at school?
Q23	How do you feel when you play by yourself?
Q24	How do you feel when people don't understand what you say?
Q25	Has your speech ever bothered you? What do people say?
Q26	Do people often ask you to repeat what you've said? How does that make you feel?
Q27	What do you do when someone doesn't understand you (for example: keep trying, change what you were going to say, give up, get upset, etc.)?









































QUESTIONS	HAPPY	IN THE MIDDLE	SAD	ANOTHER FEELING	DON'T KNOW
15 - How do you feel when you speak?					?
16 - How do you feel when you talk to your best friend?					?
17 - How do you feel when you talk to your sister/brother?					?
18 - How do you feel when you talk to your parents?					?
19 - How do you feel when you talk to your teacher?					?
20 - How do you feel when your teacher asks you?					?
21 - How do you feel when you talk to whole class?					?
22 - How do you feel when you play with your classmates/children in your school?					?
23 - How do you feel when you play alone?					?
24 - How do you feel when people do not understand what you say?					?

Figure 1. Speech Participation and Activity Assessment of Children's Questionnaire

The analysis of the research results was quantitative descriptive and inferential. The data were analyzed by means of R software (R Core Team)¹⁹, more specifically with the help of packages intended for text data mining (SnowballC, tmandwordcloud2). In the sequence, the more frequently cited words were presented in frequency charts as well as through word cloud concept illustrations¹⁹, generated by the software. The most used keywords were put in evidence in the cloud by means of its position, color and size. After initially exploring the generated word clouds, words that were irrelevant in the context of the question asked were manually removed. Then, a second analysis of the word clouds was performed, aiming to avoid gender differentiation as words were stressed (“restless child”, instead of “restless boy/girl”) as well as the conjugation of verbs (“speak”, instead of “speaks” or “spoke”).

Finally, for each of the most used words in each question, the degree of association of that word with all other words in the same answer was presented. This statistics is a measure of association and it is equivalent to the association coefficient in a scale of zero to one, in which figures below 0.3 are considered as weak association, those between 0.3 and 0.7 as average association, and the ones above 0.7 as strong association. For most of the cases, the degree of association was verified to be between weak and average. It is important to mention that, in this study, the most relevant questions were selected in relation to the strong degree of association, the average association and the average association with aspects of speech.

The Fisher’s exact test was used to carry on the analysis of questions 15 to 24 and of the “Slight” and “Severe” severity groups.

RESULTS

Analyses of parents’ answers to SPAA-C

Thirty-two parents and guardians in all were interviewed. Their answers were charted and are represented in pictures, which have the different parts of the table referring to the questions used, numbered according to SPAAC. In Figure 2, as word clouds, the words that presented strong association were designated with the letter “A”, and those with average association, with the letter “B”.

The pictures are presented according to the relation between frequency and association, in order to make the interpretation easier.

As seen in Figure 2, regarding the questions with strong association levels - A, in Q4 (parents), the most frequent answer was “school”, which had strong association with “brother” as the answer. In Q8C (parents), the most frequent answer was “all of them”, strongly associated with the answer “world”. In Q8D (parents), the most frequent answer was “all of them”, associated with “world” for the answer. Finally, in Q19 (parents) the answer “manner” was the most frequent, strongly associated with “none”. As for the questions with average level of association - B, in Q1 (parents), “restless” was the most frequent answer, with average association with the answer “stubborn”. In Q6 (parents), the answer “upset” was the most frequent and was averagely associated with the answers “whiner” and “reprove”.

Parents’ answers to the questionnaire with average association and relation to the child’s speech have been illustrated in the word clouds, and are shown in Figure 3.



Figure 2. Answers with strong association (A) and average association (B), for the parents



Figure 3. Answers with average association for the parents and relation with the child's speech

Regarding Q7 (parents) the answer “speech” was the most frequent one and was associated with the words “delay, slow, think, normal and fast”. As for Q8B (parents), “understood” was the most frequent word and there was evident association with “well”. In Q10 (parents), the most frequent answer was “games”, associated with the answers “computer, ball and video game”. About Q11 (parents), the most frequent answer was “suppose”, associated with “quiet, room and school”. In Q12 (parents), the word “limits”, was confirmed as the most frequent answer together with the answer “maybe, talk and hurt”. In Q13 (parents), the most frequent answer was “school”, associated with “yes, maybe and never”. In Q15 (parents), the answer “yes” was the most frequent one, which obtained association with the answers “times, irritates and because”. In Q16 (parents), the most frequent answer was “family” and it was associated with the answers “confident, school, withdrawn and spontaneous”. In its turn, in Q18 (parents), the most frequent answer was “speech”, and the associations were “speak, exchanges, delay, took, place, follow-up, relatives, motivate and different”. Finally, in Q20 (parents),

“speak” was the most frequent answer, associated with “learn and correctly”.

Analyses of the children’s answers to SPAA-C

The open-ended questions answered orally by the children did not present any level of strong association. Therefore, only the answers with average association and the answers with average association and relation to the child’s speech are presented in Figures 4 and 5, respectively.

Among the questions with average association, in Q1 (children) the answer “play” was the most frequent one, which obtained association with “play, stay, quiet, dog, classmates and school”. In Q3 (children), the word “play” was the most frequent, and it was associated with “ball”. In Q5 (children), the word “play” was the most frequent one and was associated with “alone, ride and bicycle”. In Q6 (children), the most frequent word was “friends”, which had association with “parents”. Q8 (children) had “play” as the most frequent word, associated with “somebody, stories, read, park and counting”. Finally, in Q9 (children), the most frequent answer was “read”, associated with “know and alone”.

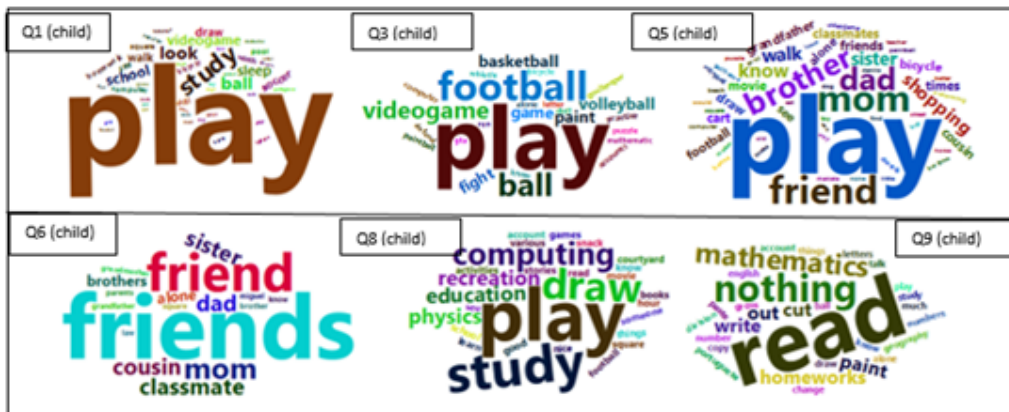


Figure 4. Answers with average association for the children

As for the questions that had average association and relation to the child’s speech, in Q13 (children), the answer “sad” obtained average association with the answer “well”. To Q25 (children), the most frequent answer was “yes”, which obtained average association with the answers “feel and angry”. Regarding Q26,

the most frequent answer was “give up”, with average association with the answer “shame”. In Q27, the word “give up” obtained average association with the word “shame”.

The analyses of the children’s oral answers to the closed-ended questions are shown in Table 1.



Figure 5. Answers with average association and relation with speech, for the children

Table 1. Distribution of children by severity group and answers to the multiple-choice questions (15 to 24).

Deviation	No siblings	Happy	Average	Sad	Doesn't know	Other	Total
Q15	(p=0.117)						
Severe	-	2	3	-	2	-	7
Slight	-	15	2	3	5	-	25
Q16	(p=0.424)						
Severe	-	6	-	-	-	1	7
Slight	-	22	2	-	1	-	25
Q17	(p=0.999)						
Severe	4	2	-	1	-	-	7
Slight	11	9	1	3	-	1	25
Q18	(p=0.404)						
Severe	-	3	1	2	1	-	7
Slight	-	17	2	3	3	-	25
Q19	(p=0.176)						
Severe	-	3	2	1	1	-	7
Slight	-	17	7	1	-	-	25
Q20	(p=0.861)						
Severe	-	2	1	-	3	1	7
Slight	-	9	6	2	5	3	25
Q21	(p=0.241)						
Severe	-	6	-	-	1	-	7
Slight	-	10	7	3	2	3	25
Q22	(p=0.999)						
Severe	-	6	1	-	-	-	7
Slight	-	21	2	2	-	-	25
Q23	(p=0.472)						
Severe	-	2	2	3	-	-	7
Slight	-	4	3	17	1	-	25
Q24	(p=0.546)						
Severe	-	1	-	4	2	-	7
Slight	-	4	5	8	4	4	25

Statistical test used - Fisher's exact test

The results have not presented significant associations between the multiple-choice questions (Q15 to Q24) and the severity. However, some of the answers have shown a slight tendency to the association, namely, questions 15 ($p=0.117$) and 19 ($p=0.176$). In this regard, it is taken into consideration that there might be happier children whose SSD has a slight or slight-to-moderate level of severity, since these levels are closer to the understandable speech/communication, particularly the slight one. The term happy, used in this context, refers to one of the items present in the questionnaire.

DISCUSSION

Based on the results obtained through the answers with strong relation, it was possible to observe that in Q4 (parents), “going to school” was the most frequently mentioned response, which had association with “brother”. This shows that going to school is a normal part of the children’s daily routine, which is to be expected, since all the children in the research were in school age. In a study²⁰, the authors state that an adequate routine makes possible for the children to build up their independence and autonomy, resulting in their insertion into society. Besides, a safe environment is important for the children to feel capable of dealing with their difficulties.

In Q8C and Q8D (parents), the most frequent answers were “everybody” to both questions, which suggest that some children have contexts and people with whom they feel comfortable to speak, unlike other ones who feel uncomfortable. In another study²¹, it has been verified that some children have an avoiding attitude towards the “other people”, showing the child to be resistant concerning speech difficulties and worried about their being or not understood by other people.

Q19 (parents) has made it possible to notice that none of the parents are ashamed of their children’s alteration in speech, since most of the answers were “manner”, which was associated with “none”. In spite of some studies^{21,22} pointing to the family as one of the influencing factors for the occurrence of Sound-Speech Disorders, in this work it was possible to observe that the parents seek to promote a mediating environment in such matters.

Regarding Q1 (parents), it was verified that most of the children show difficulties in a behavioral level, as the answer presented association with “stubborn”. Besides, in Q6 (parents), “upset” was the most

frequent answer and it obtained association with the answers “whiner and reprove”, which demonstrates that speech impairment may also cause changes in the child’s behavior. As for questions Q11 (parents), Q12 (parents) and Q13 (parents), it has also been possible to identify the above-mentioned situations, since the most frequent answers indicated that the children are limited because of their difficulties to speak. This leads to changes in their behavior, in the school and in their relationship with the other individuals. Children with disturbances in oral language usually have low school performance and develop feelings of frustration and low self-esteem. As a tendency, they may suffer from social isolation; this was reported by some parents, saying their children face school problems such as bullying. The victims of this sort of prejudice are usually timid and show difficulty in building a relationship with their mates¹⁰.

Q7 (parents) in its turn, which obtained “speech” as the most frequent answer and was associated with the words “delay”, “slow”, “think”, “normal” and “fast”, show that parents try to observe how their children speech works. One study pointed out that, concerning the relatives’ perception of their children’s speech difficulties, all of them mentioned some situation in which “the sounds were switched” in speech, even though it was hard to classify them in levels or degrees of difficulty of SSD¹¹.

In relation to Q10 (parents), most of the parents reported that their children are good enough at games without the need of using speech properly, since in the question there was association with the answers “computer”, “ball” and “video game”. In these cases, it is important to stress that children prefer still activities, some of which are characteristic of isolation, such as the computer and the video game, since there are no involvement with other people.

In Q15 (parents) it was possible to verify that most of the children are aware of their speech difficulty, since “yes” was the most frequent answer. A study has revealed that children with alteration in speech may be aware of the phonological system considered as normal, for they are capable of reflecting upon the speech sounds, which in turn makes them conscious of their own deviation^{23,24}.

In Q16 (parents), it was possible to notice “family” as the most frequent answer, associated with the answers “confident, school, withdrawn and spontaneous”, making evident that family is the environment in which children feel the most comfortable to speak.

The context provided by family and close friends normally offers a safe supportive environment where children can be themselves and take part in a typical childhood¹⁶.

As for people's perception of alterations in speech, in Q18 (parents) the most frequent answer was "speech" and the associations were "speak, exchanges, delay, took, place, follow-up, relatives, motivate and different", showing that other people as well observe the aspects related to the functioning of speech in children, many of the times in a derogatory way. In a study carried out in Australia²⁵, parents reported that, in public spaces, they had to protect their children in response to other people's reaction to the children's speech, mainly in regard to social aspects and emotional issues.

In Q20 (parents), "speak" was the most frequent answer, associated with "learn and correctly", indicating their parents desire for the children to develop speech appropriately and their interest in the therapeutic process. Two studies^{11,20} have pointed out it was possible to observe that parents feel as part of the therapeutic process. Their reports revealed even greater knowledge and understanding about the child's difficulties in speech, as well as their perception of improvements in the child's speech.

About the questions answered by the children, regarding their favorite activities, in Q1 (children) "play" was the most frequent answer. In the same line of thought, Q3 (children), Q5 (children) and Q8 (children) also refer to the activities the children enjoy to engage in, to which the most frequent answers were "play" and "play games". It is important to point out that playing is one of the most important elements in building up a child's symbolic and, consequently, for the development of the speech abilities. From the child's perspective, they play for the fun of it, even though it is the main factor of their growth in knowledge. While they play, children express themselves and exchange experiences as individuals belonging to a social group and a social context²⁶.

In Q6 (children), referring to the people whom the child likes to play with, the most frequent answer was "friends" and it had association with "parents", which is to be expected because of their proximity to the child. This relationship is made evident in a study that refers to family and friends circles as providing a safe and supportive environment for the child¹⁶.

Finally, in Q9 (children), which concerns the activities they consider difficult to accomplish in school, the most frequent answer was "read", which was

associated with "know and alone". Some children, due to alterations in speech, start their process of learning how to write before finishing the process of phonological acquisition. This may hinder the grapheme-phoneme decoding process, causing an impact in their learning process²⁷.

As for Q13 (children), which refers to the moments when the children do not like to talk to people, the answer "sad" had constant association with the answer "well"; that is, children usually don't like to talk to other people when they're sad. This reaction is justified by the unintelligibility of the child's speech, making it hard for the other ones to understand him/her. A study has revealed that the understanding of the speech of children with SSD by the people in general is more hindered as compared to that of a speech-language pathologist, since these are trained to understand the speech of a child²⁸.

Regarding Q25 (children), questioning whether the child has already been provoked because of how they speak and what people say about it, the most frequent answer was "yes", associated with the answers "feel and angry". This shows that most of the children have already been irritatingly provoked. Following the same line of thought, Q26 (children) and 27 (children) question whether people usually ask for the child to repeat what they had said, how they feel about it and how they react when they're not understood. To both questions, the most frequent answers were "yes and give up", being associated with the answer "shame". This makes reference to the child usually having to repeat what they had already said and to the shame they feel and/or the propensity to give up saying something. This once again shows that children with disturbances in oral language frequently develop feelings of frustration and low self-esteem, with a tendency to get isolated and to be shy, hindering the relationship with their mates¹¹.

According to a study carried out with children with Speech Sound Disorder, social ties may be hindered by intelligibility of speech, which may also influence interpersonal events in general, with implications on how to build future social relations. For this reason, in most cases the change in social conduct and in psychological aspects of the child with phonological deviation is remarkable. This behavior was identified in the results, as it can be seen in Table 1, more specifically in Q24 (children), which shows that 38% of the interviewed children feel sad when other people don't understand what they say²⁹.

It is important to stress that the results of this research show the need to inform healthcare professionals, educators and the population in general for them to be aware of SSD and its impact. Consequently, these professionals would be able to help promoting information about SSD, thus leading to better prevention in Primary Health Care and early intervention. This would bring benefits to the child and avoid some damage to oral communication and to other circumstances as well²⁸.

Besides this, the health systems must be improved in relation to the ICF classification, for they are capable of promoting knowledge about health problems and pointing to its presence and severity; in the case of this study, the ones related to speech, both in individual and social level. Thus, it is possible to identify functionality, as described in the ICF, both in relation to health issues and to illnesses and disorders.

Not less important are the speech issues in this context, as the phonological ones made evident in this research, which are useful for considering the importance of early intervention. Teamwork is required in order to gather information that would promote health awareness among the population in general. This would enable children and relatives to find treatment in accordance with their needs, considering also environmental and social influences^{30,31}.

Therefore, the use of questionnaires in clinic and academic routine and in health promoting campaigns is beneficial for this population, with impact on communication issues and, specifically, in the SSD.

Furthermore, as a limitation to this study, it must be pointed out that the children that were undergoing speech-language pathology treatment where this research was carried out, even those that were in the beginning of the treatment, could receive further information related to speech and its disorders.

CONCLUSION

Based on this study, it has been concluded that parents are aware both of the impact caused by the phonological type of SSD and the difficulties faced by the children regarding interpersonal relationships, emotional state and school problems.

The study has pointed out that children notice the impact of SSD and that unfamiliar environments are more likely to make them get isolated or develop feelings of frustration, shyness and low self-esteem. These factors hamper relationship with other people, hindering the effectiveness of oral communication.

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