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Original articles

Assessment approaches in speech therapy: Considerations on choice between phonological assessment and child language test

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ABSTRACT

Purpose: to evaluate the agreement between the results obtained from the Child Phonological Assessment (AFC in Portuguese) and Child Language Test (ABFW) protocols, regarding the severity of the phonological disorder, occurrence of errors in sound production, and absence of sounds.

Methods: speech data from ten male children, aged 4 to 8 years, diagnosed with phonological disorder, were analyzed. Data were collected using the AFC and ABFW-Phonology protocols and analyzed through descriptive and comparative statistical analysis, using Spearman's Rank Correlation Coefficient ($p<0.05$).

Results: high agreement between the protocols was found. Both protocols agree on the severity of the disorder, and both agree on the production of errors in the phonological system, with minor discrepancies. Only two subjects showed a percentage difference above 10% in error production.

Conclusion: the AFC and ABFW protocols demonstrated strong agreement on the evaluated aspects. Both provide adequate and similar descriptions of the phonological system, and the choice between them and their application should depend on the therapist's experience.

Keywords: Child; Speech Sound Disorder; Speech Therapy; Speech

A study conducted at the Universidade Federal do Rio Grande do Norte, Center for Health Sciences, Department of Speech-Language Pathology, Speech-Language Pathology Program, Natal, Rio Grande do Norte, Brazil.

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INTRODUCTION

Speech Sound Disorder (SSD) is a generic term related to difficulties with speech sound perception, motor production or phonological representation[1]. For Brazilian Portuguese speakers, the age of five is considered a milestone for the establishment of a phonological system similar to that of the adult target[2]. When this system is not established, it is an indicative sign of SSD[2].

Difficulties manifested in children are related to the recognition and production of sounds, characterized by the presence of phonological processes inappropriate for their age or regional linguistic variations[1,3]. Thus, inadequacy results from the persistence of phonological processes considered "initial" along with the production of target phones frequently "delayed" and occurring in the absence of other identifiable organic factors that could explain such difficulties[4]. In many cases, these changes lead to negative repercussions, making children's speech unintelligible, which can hinder understanding by interlocutors, create difficulties in literacy, and impede learning to read and write[5,6].

Prevalence studies of speech-language disorders in childhood have been conducted in various regions of Brazil, with rates ranging from 9.17% to 22.9% for SSD[7-9]. The variability in results can be attributed to methodological differences, the age of the children assessed, and dialectal variations in the groups evaluated.

Before choosing intervention and selecting therapeutic targets, it is necessary to perform a detailed and particularized assessment of the phonological and phonetic inventory. This assessment allows the speech-language pathologist to have an in-depth understanding of which phonemes and syllabic structures the child already possesses and which still require intervention or adjustment in production. The more information gathered in the phonological assessment, the better the therapeutic planning and the choice of therapeutic targets will be. A thorough assessment will assist the professional in diagnosis and the delineation of the most appropriate approach, facilitating quicker and more efficient treatment[7,10]. The findings from the phonological assessment provide crucial insights for understanding linguistic phenomena and organizing the phonological system of children with SSD.

Specific tests exist to evaluate phonology, aiming to analyze the development and phonological system of children. These protocols were developed with methodological care to elicit the production of all phonemes in Brazilian Portuguese in all syllabic positions where the segments can occur, enabling the collection of a representative sample of the child's speech production.

Among the phonological assessment models developed in Brazil, the following stand out: Phonological Assessment Protocol for Children – PAFI[11], Phonological Assessment Instrument – AFI[12], Phonological Assessment Instrument – INFONO[13], Speech Evaluation for Acoustic Analysis – IAFAC[14], Child Phonological Assessment – AFC[15], and Child Language Test – ABFW[16]. Of these, the last two are the most used in speech-language pathology practice in Brazil.

The ABFW[16] protocol was developed to assess the global profile of children in various areas of language: Phonology (naming and imitation tasks), Vocabulary, Fluency, and Pragmatics. Generally, the test aims to obtain crucial data for the accurate diagnosis of language disorders. Thinking exclusively about the Phonology test[17], the instrument provides a speech sample through spontaneous naming and word imitation, allowing for the analysis of the phonetic and phonological inventory. This assessment is one of the most commonly used in speech analysis in different studies[18,19].

The AFC[15] instrument is designed to assess the phonological component of children's language. The protocol, composed of drawings of general environments, allows the child to name a larger number of targets, with data collection performed through spontaneous speech and naming. It is a widely used instrument in southern Brazil; however, the thematic drawings used are outdated, often hindering the recognition of the objects depicted. The test has been employed in various studies, both in phonological acquisition and in cases of SSD[20,21].

Both instruments – ABFW[17] and AFC[15] – are capable of collecting a representative sample of the child's speech and, thus, can assist the speech-language pathologist in better describing and analyzing the subject's speech disorders. Despite this, these instruments differ greatly in methodology, the number of lexical items produced, the way collected data is analyzed, and especially the time required to administer the protocols. The first is characterized by being a test with stratified norms for classifying the disorder, while the other is a protocol with only literature parameters to justify the disorder.

It is important to note that when both protocols were published, there was a mixture of terms to define

SSD. This term began to be applied later, from a study[1] that used this term as a broad umbrella. However, it is crucial to emphasize that, based on the description and classification each protocol provides, they refer to the same speech disorder. There is no motor impairment, no language impairment, no auditory alterations; in summary, even using different names, the objective of both protocols is to evaluate speech disorders with phonological impairment of the language.

Given the above, questions arise about the consonances and dissonances of the instruments. The question that clinical speech-language pathologists ask is, "Which would be better?" Based on this question, this study aimed at evaluating the agreement between the results obtained from the Child Phonological Assessment[15] (AFC) and Child Language Test[16] (ABFW) protocols, regarding the severity of the phonological disorder, occurrence of errors in sound production, and absence of sounds.

METHODS

This comparative quantitative/qualitative study is part of a larger project entitled "Phonological Intervention in Speech Disorders," which was approved by the Research Ethics Committee (CEP) of the Federal University of Rio Grande do Norte (UFRN), Brazil, under opinion number 2.198.577 - CAAE: 71169517.6.0000.5292, complying with the recommendations of resolution 466/2012 of the National Health Council.

The inclusion criteria used for sample selection were: being enrolled on the waiting list of the UFRN Speech-Language Pathology Clinic; being a monolingual speaker of Brazilian Portuguese; being between 4 years and 8 years and 11 months old; having a diagnosis of SSD; not having undergone prior speech therapy; having normal hearing and no observable neurological, psychological, or cognitive disorders. Additionally, having the Free and Informed Consent Form signed by parents/guardians authorizing participation in the research and the children's consent through the Free and Informed Assent Form.

Speech data were collected from ten male children aged 4 years and 5 months to 7 years and 2 months, diagnosed with SSD. These subjects were on the waiting list for treatment at the Language Sector of the UFRN Speech-Language Pathology Clinic.

All subjects participating in the study underwent the necessary evaluations for the research and subsequently continued in speech therapy to correct their phonological system. The project was carried out continuously, and each patient received treatment for approximately 12 months. During this period, the initial screening, phonological assessment, therapeutic planning, and therapy were conducted. For this study, only data from the initial phonological assessments were considered.

In the initial screening, the following protocols were applied: anamnesis; basic audiological assessment, and Orofacial Myofunctional Assessment with Scores – AMIOFE[22]. Subsequently, the phonological assessment was conducted using the two instruments selected for analysis: AFC[15] and ABFW[17] - Phonology. In the evaluations, the participant initially completed the AFC[15] and then the ABFW[17] - Phonology protocol. All patients were analyzed in this order. After obtaining the subjects' phonological inventories, they were reassigned for phonological therapy.

One of the protocols used to assess phonology was the ABFW[17] - Phonology. It uses two tasks, one for word imitation and another for figure naming, to obtain speech data. The test argues that both collections are important because they allow verifying whether the subject has mastery of phonological rules or has the possibility of correctly producing a target sound when preceded by a model. This study considered only the naming task for analysis, an exam that involves presenting 34 different figures selected and the child names them independently, without the therapist's assistance. The images in the protocol include the sounds of the Portuguese phonetic inventory in different syllabic positions. The decision to use the naming task was made because the data obtained through the AFC[15] are only of independent production, without prior therapist modeling.

The AFC[15] instrument is an assessment composed of five thematic drawings: "vehicles," "living room," "bathroom," "kitchen," and "zoo," which provide opportunities for the spontaneous naming of 125 different words. The list of words provided by the AFC[15] includes all phonemes of Portuguese in all possible positions within the syllable and word structure.

The ABFW[17] and AFC[15] protocols are distinct, but both seek to evaluate the phonology of the language. The ABFW[17] Child Language Test was first published in 2000 and is composed of four protocols: Vocabulary, Pragmatics, Fluency, and Phonology. It is noteworthy that all the children who participated in the research achieved adequate results in the other tests, indicating appropriate language development. The second

protocol, AFC[15], was published in 1991. The book that presents the AFC[15] has a list of possible words for the child to produce, but due to the lack of updated drawings, many targets indicated by the authors are not produced. For example, "record," the children do not know what that black thing on the living room floor is.

As previously mentioned, the protocols are distinct both in application form and in time and control of the stimuli provided to the subject. The ABFW[17] is a relatively quick test to administer, and it is possible to control the lexical items produced by the subject. The AFC[15] requires familiarity with the instrument's use, as its application depends on the therapist's interaction with the child. Due to the slightly outdated drawings that are no longer part of the child's environment, the therapist often has to converse and try to elicit the segment through spontaneous speech. For example, "how do the aliens arrive on Earth?" expecting the response, "by spaceship." Sometimes it is obtained, mainly with older children, but with younger children this is a difficulty. The AFC[15] does not have a set time or a list of stimuli that must be produced by the child. Therefore, the researcher must be attentive to the productions to ensure that all possible targets are produced. For the research, it was decided that ABFW[17] and AFC[15] would be administered in that order and in a single 50-minute session. Both tests were administered by a researcher with experience in the protocols.

Speech data were collected throughout the evaluation process, conducted in a quiet environment and recorded on a digital recorder or directly on a computer. These data were phonetically transcribed by the researcher and reviewed by two additional judges with experience in phonetic transcription.

Due to these discrepancies - application time, number of lexical items, presentation of stimuli - between the protocols, it was decided to compare the data obtained from each one. The results are presented as percentages and are based on the individually collected production. Thus, the results of both tests were evaluated for severity using the Percent of Correct Consonants – Revised (PCC-R)[23]. The PCC-R was adopted as it is a measure that disregards distortions. Since this study was conducted exclusively with children presenting SSD without organic causes, this measure was chosen to assess the severity of the disorder. The percentage is obtained by dividing the number of correct consonants by the total number of consonants and multiplying by 100, classifying subjects into four levels of SSD severity: mild (85 to 100%); mild-moderate (65 to 85%); moderate-severe (50 to 65%); and severe (<50%).

The results were also considered in terms of the number of absent sounds in the phonological system analysis. To measure phoneme production, lexical items that contained the desired segment and those that were produced correctly were counted. Thus, the ratio of correct realizations to the number of possibilities was calculated and multiplied by 100, yielding a percentage of correct production. For this aspect, the following criteria[24] were used: fully established phoneme, when correct production occurred 80% to 100% of the time; partially acquired phoneme, when correct production was 40% to 79%; and absent, when correct production of the segment was 0% to 49%.

Regarding error production, the ABFW[17] – Phonology test allows calculation by analyzing the difference between the occurrence of omissions, substitutions, and distortions, and the occurrence of correct productions, in addition to evaluating the phonological processes performed. On the other hand, as AFC[15] does not have a fixed list of productions, it does not directly allow the analysis of error production. However, from the productions, it is possible to determine the percentages of correct phoneme production separately. Consequently, the sum and then the difference of this measure were calculated to obtain error production in the speech data of the sample subjects.

Due to the small sample size, only descriptive statistical analysis was possible to describe the level of agreement regarding the severity of SSD among the subjects evaluated, with both protocols. For the analysis of error production and the number of absent sounds in the phonological system of the sample data, the Spearman Correlation Coefficient[25] statistical test was used. The correlation was employed to analyze the relationship between the AFC[15] and ABFW[17] – Phonology protocols, aiming to compare how much the tests agree with each other. In this statistical analysis, a significance level of 5% ($p<0.05$) was considered for the applied tests.

RESULTS

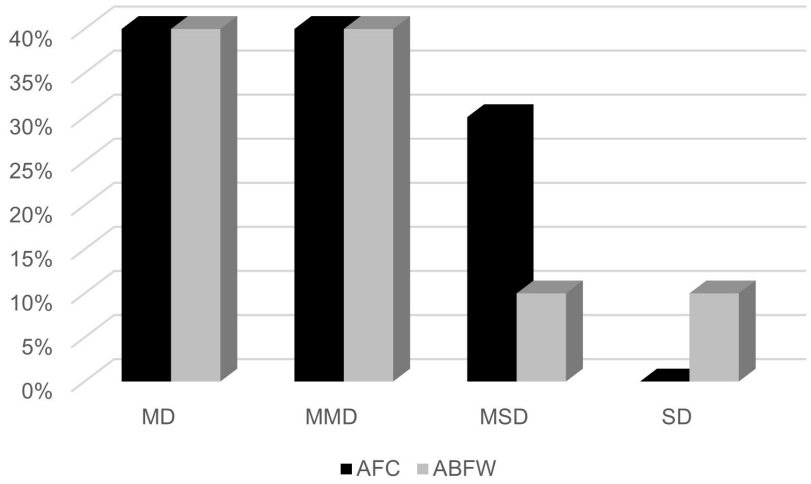
In Chart 1, a comparison of the severity of SSD in the subjects is presented based on the two assessments, AFC[15] and ABFW[17] - Phonology, according to the calculation of PCC-R.

Chart 1. Comparison of the Percentage of Consonants Correct - Revised and the Severity of Speech Sound Disorder According to the Instruments, Child Phonological Assessment and Child Language Test - Phonology

Subject	AFC PCC-R	AFC Severity Classification	ABFW PCC-R	ABFW Severity Classification
S1	91.10%	Mild Disorder	85;60%	Mild Disorder
S2	86.70%	Mild Disorder	85.60%	Mild Disorder
S3	71.40%	Mild-Moderate Disorder	74.50%	Mild-Moderate Disorder
S4	62.90%	Moderate-Severe Disorder	47.10%	Severe Disorder
S5	84.90%	Mild-Moderate Disorder	85.60%	Mild Disorder
S6	58.40%	Moderate-Severe Disorder	62.20%	Moderate-Severe Disorder
S7	87.70%	Mild Disorder	85.60%	Mild Disorder
S8	64%	Moderate-Severe Disorder	73.30%	Mild-Moderate Disorder
S9	89.80%	Mild Disorder	84.40%	Mild-Moderate Disorder
S10	67.50%	Mild-Moderate Disorder	67.80%	Mild-Moderate Disorder

Captions: PCC-R: Percentage of Consonants Correct-Revised; S: Subject; AFC: Child Phonological Assessment; ABFW: Child Language Test - Phonology

Figure 1 presents a description of the occurrences of different severity classifications of SSD in the sample subjects in both assessments.



Captions: MD: Mild Disorder; MMD: Mild-Moderate Disorder; MSD: Moderate-Severe Disorder; SD: Severe Disorder; AFC: Child Phonological Assessment; ABFW: Child Language Test - ABFW

Figure 1. Occurrence of different severity classifications of speech sound disorders in the different protocols used

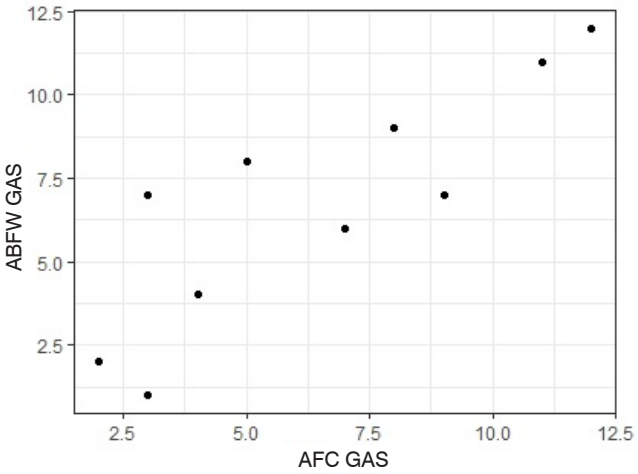
Chart 2 presents a description and the number of missing sounds identified in the phonological systems of the subjects in this study for each evaluative protocol.

Chart 2. Comparison of the Phonological System of Subjects Between the Results of the Child Phonological Assessment and the Child Language Test - Phonology

Subject	Assessment	Absent sounds	Number of absent sounds	Absent syllabic structures
S1	AFC	[ɾ]	1	Cd and OC
	ABFW	[l, ɾ]	2	Cd and OC
S2	AFC	[ɾ, ʎ]	2	Cd and OC
	ABFW	_	0	Cd and OC
S3	AFC	[b, d, k, g, v, z, l, ɾ]	8	Cd and OC
	ABFW	[k, g, v, z, ʒ, l]	6	Cd and OC
S4	AFC	[k, g, f, v, s, z, ʃ, ʒ, l, ɾ]	10	Cd and OC
	ABFW	[p, k, f, v, s, z, ʃ, ʒ, l, ɾ]	10	Cd and OC
S5	AFC	[s, ʃ]	2	Cd and OC
	ABFW	[g, s, z, ʃ]	4	Cd and OC
S6	AFC	[d, v, s, z, ʃ, ʒ, l, ɾ, ʎ]	9	Cd and OC
	ABFW	[k, g, v, z, ʃ, ʒ, l, ʎ, ɾ]	9	Cd and OC
S7	AFC	[v, ɳ, ʎ, ɾ]	4	Cd and OC
	ABFW	[k, ʃ, ʒ, n, ʎ, ɾ]	6	Cd and OC
S8	AFC	[b, d, g, v, s, z, ʒ, ɾ]	8	Cd and OC
	ABFW	[b, d, g, v, s, z, ʒ]	7	Cd and OC
S9	AFC	[f, ɾ, l]	3	Cd and OC
	ABFW	[l, ɾ]	2	Cd and OC
S10	AFC	[k, g, f, s, z, ɳ, ɾ]	7	Cd and OC
	ABFW	[k, g, s, ɾ]	4	Cd and OC

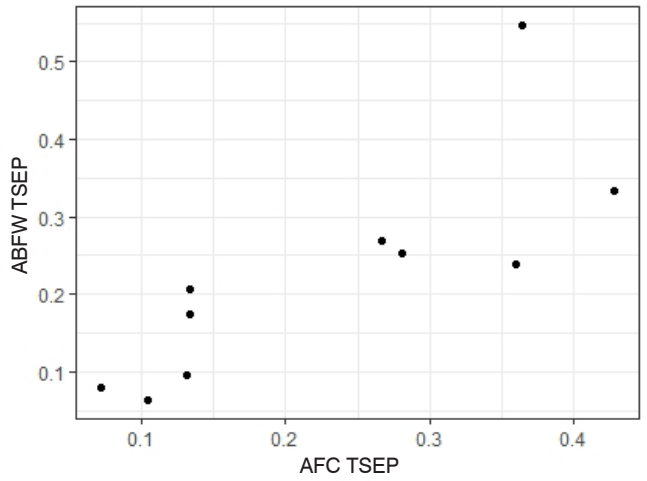
Captions: S: subject; Cd: coda; OC: complex onset; AFC: Child Phonological Assessment; ABFW: Child Language Test - Phonology

Figures 2, 3, and 4 illustrate the relationship between the results of AFC[15] and the ABFW[17] – Phonology protocol in three different aspects: "General Absent Sounds (GAS)", "Total Speech Error Production (TSEP)", and "Percentage of Consonants Correct-Revised (PCC-R)", respectively. It is noted that all aspects, in both evaluative protocols, show a correlation with each other.



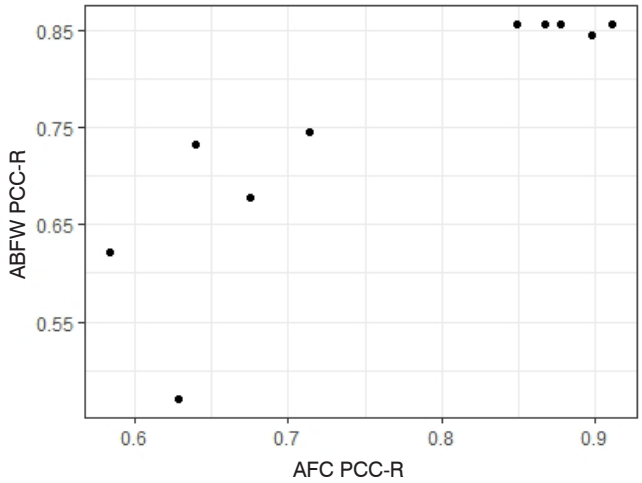
Statistical Test: Spearman's Correlation, *$\rho = 0.8262$, $p < 0.05$
Captions: GAS: General Absent Sounds; AFC: Child Phonological Assessment; ABFW: Child Language Test - ABFW

Figure 2. Comparison of absent sounds between the two protocols.



Statistical Test: Spearman's Correlation, *ρ = 0.9152, p < 0.05
Captions: TSEP: Total Speech Error Production; AFC: Child Phonological Assessment; ABFW: Child Language Test - ABFW

Figure 3. Comparison of total error production between the protocols.



Statistical Test: Spearman's Correlation, *ρ = 0.8504, p < 0.05
Captions: PCC-R: Percentage of Consonants Correct-Revised; AFC: Child Phonological Assessment; ABFW: Child Language Test - ABFW

Figure 4. Comparison of PCC-R between the evaluated protocols.

Chart 3 illustrates a comparison of the percentage of error production in the subjects' speech data obtained with the application of the two protocols, as well as the percentage difference between the AFC[15] and ABFW[17] – Phonology assessments. It is possible to observe a difference in errors greater than 10% in two subjects in the sample. For the others, this difference was below this percentage.

Chart 3. Comparison of the percentage of error production in speech data between the Child Phonological Assessment and the Child Language Test - Phonology

Subject	AFC Error Production (%)	ABFW Error Production (%)	Diferença AFC-ABFW (%)
S1	7.23%	7.93%	0.70%
S2	10.40%	6.34%	4.06%
S3	28.10%	25.23%	2.87%
S4	36.45%	54.74%	18.29%
S5	13.31%	20.63%	7.32%
S6	42.77%	33.33%	9.44%
S7	13.32%	17.46%	4.14%
S8	35.95%	23.80%	12.15%
S9	13.10%	9.52%	3.58%
S10	26.71%	26.98%	0.27%

Captions: S: Subject; AFC: Child Phonological Assessment; ABFW: Child Language Test - Phonology

DISCUSSION

Given the objectives of this study and the results presented, concordance between the phonological assessment protocols was verified in all analyzed aspects, according to Spearman's Correlation[25].

This finding can be observed in Figures 2, 3, and 4, where the scatter plots provide a graphical visualization of the increasing relationship between the evaluative tests, meaning that when one increases, the other also increases, thus showing a strong concordance in the three analyzed aspects. However, other linguistic

considerations were made that differed from this finding. Taking a more qualitative view into account, differences were observed regarding the presence or absence of segments.

Through Chart 1, it is noted that there was agreement between the protocols regarding the classification of severity in four evaluated subjects. It is also observed in Figure 1 that the ABFW[17] – Phonology test characterized most subjects with mild or mild-moderate disorder, whereas the AFC[15] test presented greater diversity among the degrees of disorder in the sample, but no subject was classified as severe.

It is noted that both protocols classified most subjects with mild or mild-moderate disorder. The data obtained showed the occurrence of the same number of subjects for the mild level and a difference of only one subject in the mild-moderate severity. The greatest discrepancy was found in the moderately severe and severe severity levels, where, according to the AFC[15] protocol, three subjects were classified as moderately severe and none as severe, unlike what was observed in ABFW[17], which considered one subject with severe disorder and one subject as moderately severe. This result agrees with the study[26] that strengthens the hypothesis that PCC-R[23] is a flawed measure when used alone to distinguish intermediate classifications. According to the study[26], in cases where the severity of the disorder is very close between two degrees, it is interesting to employ other forms of classification to describe it.

Subjects S4 and S6 presented classifications ranging between moderately severe disorder or severe disorder and were the subjects with the highest number of missing sounds. This finding is in line with previous studies[27,28], that reveal a connection between the severity of SSD and the number of phonemes not acquired.

Analyzing the results, there are some discrepancies in the qualitative comparison of the two phonological assessments employed. The main difference observed is related to error production and the number of missing sounds in the subjects' phonological inventory. The two protocols are similar in results related to syllabic structures. Difficulty was observed in the production of codas, both those formed by the archiphoneme /S/ and the archiphoneme /R/, and in the production of complex onsets. In contrast, in at least 60% of the sample, there was no agreement on the classes of missing sounds. For example, S9 presented, according to the ABFW[17] – Phonology protocol, all classes acquired except for the liquids. However, when analyzing S9 with AFC[15], the fricative class was incomplete, with the absence of the phoneme [f].

This behavior is observed in several subjects, where according to one protocol the class is fully acquired, but according to the other, not all classes are acquired yet, which may result from the collection methodologies. According to the ABFW[17] – Phonology protocol, lexical items are controlled, allowing the production of all phonemes in the language. On the other hand, in AFC[15], speech is by spontaneous naming, there is no control over the child's production, making it impossible to infer if all phonemes were produced during the speech collection.

Regarding the number of missing sounds in the phonological system, displayed in Chart 2, it is observed that both protocols were similar only in the results of the evaluations of two subjects (S4 and S6). In the others, a distinct number of missing phonemes was observed. The characteristic that was maintained in all was the absence of syllabic structures in the coda and complex onset.

By qualitatively analyzing the missing sounds, also described in Chart 2, it is noted that fricatives and liquids are the most affected classes in the sample subjects. This finding is consistent with different studies[4,28,29], that investigated the sequence of phonological acquisition in Brazilian Portuguese, with fricatives and liquids being acquired later than the plosive and nasal classes, which, due to their higher complexity, may cause difficulties in children's speech.

Following the above reasoning, it is also observed that the nasal class is fully present in the phonological system of almost all subjects, except S7 and S10. The proper acquisition of the nasal class and this ease have been described in other works[28,29] involving subjects with atypical phonological development, which show that the nasal sound class is generally preserved, as it is a group of primary segments in the order of phonological acquisition of Brazilian Portuguese. This corroborates the idea that there is a sequential regularity of the phonemes to be acquired, even in children with SSD.

Regarding the comparison of the percentage of error production in the subjects' speech data and the classification of the severity of SSD in the two protocols, it is observed that there is a direct association between speech impairment and the degree of disorder. This can be justified by the fact that SSD implies the inappropriate use of the phonological rules of the target

language[5,28-30], leading to a detriment in the child's message comprehension by their interlocutors.

Analyzing Chart 3, which presents the results regarding the percentage differential of error production between the tests, the data demonstrated that there is a distinction in the values obtained in the assessments, particularly in two subjects, S4 and S8. It is noteworthy that in these subjects, the severity of the disorder between the two protocols did not coincide.

From the statistical method employed, it was observed that the aspects analyzed in one protocol correspond to the results of the other, indicating similarity between both. This concordance was also observed graphically, concluding that there is a positive correlation between the evaluative tests in the analyzed aspects.

Finally, based on the findings, it can be affirmed that there is a possibility of different results depending on the phonological assessment used by the professional. This difference may impact the choice of the therapeutic model employed and the sounds selected for therapy.

It is emphasized that the results obtained in a phonological assessment are important guidelines for diagnosis, for the choice of the intervention model to be applied to each subject, and for therapeutic monitoring. Therefore, knowing the relationship between both instruments is crucial to ensure an accurate description of the atypical phonological system for subsequent therapy success. It should be noted that although the study was conducted using only two protocols, there are several instruments[11-14] emerging in Brazilian Portuguese focusing on the description of the phonological inventory, some based on distinctive features, others on phonological processes, but with the goal of better phonological description.

In general, it can be stated that even from a small sample, the data found in most subjects were similar, satisfactorily describing their inventory, which allows for the development of an individualized therapeutic plan for the phonological characteristics of each analyzed child. It is important to emphasize that the results of this work do not aim for generalization. The choice of the assessment method used should be determined by the expertise of the speech therapist and the speech characteristics of the patient, opting for one protocol or another. However, it is relevant to keep in mind that the results obtained by these two protocols are similar.

Despite the small sample studied, the results of this research highlighted the level of agreement between the ABFW[17] – Phonology and AFC[15] tests, noting that both protocols, although with significant methodological differences, are adequate for phonological assessment.

CONCLUSION

It can be concluded that the protocols agree with each other. Regarding the severity of the phonological disorder, the results showed that only in the severe and moderately severe degrees was there a percentage difference, but this difference did not exceed 20%. Regarding the absence of sounds, only one subject presented more missing sounds in AFC[15]; for the others, the differences were at most two sounds. In some cases, both protocols presented the same number of missing sounds and agreed on the absence of syllabic structures. As for the difference in error production, only two subjects presented a difference greater than 10%, but this difference did not reach 20%.

It was verified that the performance in phonology tests of children with SSD is subject to fluctuation depending on the instrument used, but both assessments provide adequate and similar information about the children's phonological inventory. The observed divergences do not impair the description of the phonological system. Thus, it can be affirmed that both protocols are suitable for the assessment of the phonology of the language.

Both researched protocols provide an accurate and detailed description of the subject's phonological system and allow considerations to be made about which phoneme should be focused on in the therapeutic program. The study showed that there is no better test than the other, there are only assessments with different methodologies, but both satisfactorily perform the description of the phonological system.

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IMA: Conceptualization; Data analysis; Writing - Original draft. VG: Methodology; Project administration; Supervision; Writing - Review and editing.

Data sharing statement:

The individual data of the research participants, even if anonymized, will not be shared as this is a broad study involving other research projects. Therefore, no specific data will be shared at this time, as other studies are being conducted. There are no additional documents beyond the research, and the materials used in the study are already publicly available. If interested, researchers may contact the author directly via email at vanessa.giacchini@ufrn.br. Depending on the researchers' interests, some data may be made available.