A regressão observada no tratamento do desvio fonológico*****

Relapse observed in the treatment of phonological disorder

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Abstract

Background: relapse in phonological performance. Aim: to verify relapse in the phonological performance related to sound production in the treatment of phonological disorder. Method: three subjects with phonological disorders, aged 6:0, 7:0, 7:0 years, were treated for phoneme /r/ using the ABAB-Withdrawal and Multiple Probes Model. After a cycle of treatment, the phonemes that presented relapse in terms of production percentage were compared. Results: the results indicate that relapse occurred in the phonological system of all subjects. The involved features were mainly related to the main category. Conclusion: a relationship between the features of the treated phoneme and the ones that presented relapse was observed for all of the studied cases.

Key Words: Speech Disorders; Speech Therapy; Child Language.

Resumo

Tema: regressão no desempenho fonológico. Objetivo: verificar a regressão no desempenho fonológico quanto à produção dos sons no tratamento do desvio fonológico. Método: três sujeitos com desvios fonológicos, com idade de 6:0, 7:0, 7:0, foram tratados com o /r/ pelo Modelo ABAB-Retirada e Provas Múltiplas. Compararam-se, após um ciclo de tratamento, quais fonemas sofreram processo de regressão no percentual de produção. Resultados: verificou-se que o processo de regressão ocorreu no sistema fonológico de todos os sujeitos. Os traços envolvidos foram, na sua maioria, os de classe principal. Conclusão: há relação entre os traços do fonema tratado e dos que apresentaram regressão nos casos estudados.

Palavras-Chave: Distúrbios da Fala; Fonoterapia; Linguagem Infantil.

Introduction

Acquisition is not a linear process, as there are decays in the ascendant lines of the development, and short periods of regression, followed by the return towards the

specification of a segment.

The occurrence of decays in the phonological development (regression) has been observed in language acquisition, and authors agree that it is triggered by the acquisition of a more complex component of the grammar[1-2]. Phonological regression has been observed and described in the normal phonological acquisition[3] and in the Phonological Disorder (PD)[4].

Phonologically disordered children present a developmental disorder that is diagnosed when the language is poor in comparison to other abilities, without apparent reason[5]. This disorder affects the production of speech sounds and may vary from moderate to severe[6]. Phonologically disordered children present normal hearing, nonverbal intelligence and neurological status, with a significant deficit in the phonological ability[7].

This research aimed at characterizing phonological regression in the speech of children with PD. It shows a new perspective of the treatment of PD and contributes to the choice of a target-sound that potentiates the acquisition.

Method

Three subjects with slightly moderate PD[8] participated in this study, which were selected from a project approved in the Research Ethics Committee under number 046/02.

S1 and S3 were boys aged 6:0 and 7:0, and S2 was a girl aged 7:0. The phonological evaluation[9] considered as "acquired" the segment with, at least, 80% of correct production. All the subjects were treated with /r/ in Medial Onset (MO) in nine therapy sessions, one treatment cycle, through ABAB - Withdrawal and Multiple Probes Model[10].

Regression was analyzed based on the data from the initial phonological evaluation (IPE) and final phonological evaluation (FPE). The occurrence of regression was considered when the percentage of production of the segment was smaller in the FPE than in the IPE.
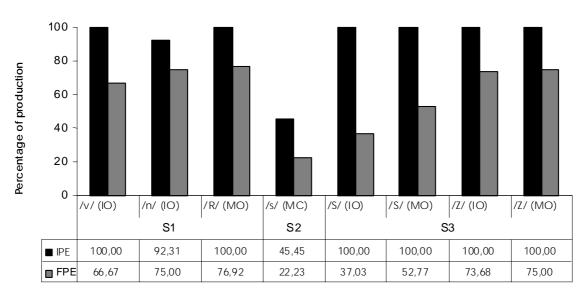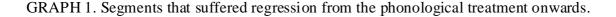
Results

Comparing the IPE and the FPE, the occurrence of evolution and regression in the phonological performance of the three subjects is evident. The number of segments that regressed was not higher than the ones that evolved, which shows the effectiveness of the treatment.

In S1, there was an increase in the production of seven segments (/n/, /s/, /z/, /R/, /l/, /L/, /r/), from which two were acquired (/n/ and /R/). In S2, one segment was acquired (/L/). In S3, out of the five segments (/d/, /g/, /l/, /R/, /r/) that presented higher percentage of production in the FPE, two of them (/d/ and /g/) were acquired.

In the FPE of the three subjects, regression was observed in eight segments, from which seven were in simple onset position and five belonged to the fricative class.

There was regression in the percentage of production of /v/ (33,3%) and /n/ (17%) in IO (Initial Onset), and /R/ (24%) in MO for S1; of /s/ (23,3%) in MC (Medial Coda) for S2; and of /S/ (63% in IO and 47,2% in MO) and /Z/ (26,36% in IO and 25% in MO) for S3 (Graph 1).

GRAPH 1. Segments that suffered regression from the phonological treatment onwards.

	/v/ (IO)	/n/ (IO)	/R/ (MO)	/s/ (MC)	/S/ (IO)	/S/ (MO)	/Z/ (IO)	/Z/ (MO)
	S1			S2	S3			
■ IPE	100,00	92,31	100,00	45,45	100,00	100,00	100,00	100,00
▨ FPE	66,67	75,00	76,92	22,23	37,03	52,77	73,68	75,00

Segments with regression

■ IPE ▨ FPE

Discussion

The evolution was noticed in phonemes that belong to all the sound classes: plosives, fricatives, nasals and liquids. The same was not observed in the regression, as the process did not occur in segments that belong to the class of plosives.

In spite of the fact that the subjects presented similar initial phonological system and underwent the same treatment, the acquired sounds belonged to different sound classes. The contrary was observed in relation to the segments that regressed, which mostly belonged to the fricative class.

Regression was observed in segments of the fricative class in the three subjects; in segments acquired in the IPE in S1 and S3; and in non-acquired segment in S2. The regression in segments that belong to the fricative class suggests an influence of the feature of the oral cavity [+continuous], present in both the target and in the segments that presented regression.

The therapy model that was used is based on the implicational hierarchy of distinctive features(1) to select the target-sound, which must be situated on a higher level of complexity, presenting marked features to promote generalization. Before the treatment, the segments that belong to the fricative and liquid classes were absent. /r/ was chosen as the target, as it is situated on the 8th level of complexity in the hierarchy used in this research.

Researches show that it is not necessary to treat all the sounds in which the child presents difficulties anymore. 11-12 It is possible to select a target for treatment in order to promote generalization, that is, the increase in production and correct use of the trained segments in other contexts or untrained environments, which reduces the treatment duration. For generalization to occur, it is necessary to select a target for treatment on a higher level of complexity.

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(1) In this case, the Implicational Model of Features Complexity (MICT) was used, based on the feature geometry by Clements & Hume (1995) and on the model of markedness restrictions by Calabrese (1995), elaborated by Mota (1996) with the purpose of representing the relations between the features and the segmental acquisition by phonologically disordered children.

Besides generalization, this study shows a considerable occurrence of regression in segments that are stable in the subjects' system, considering the treatment of a segment on the highest level of complexity in the hierarchy used in this study.

It is relevant to think that if the less complex target were selected, perhaps the occurrence of regression would not be so evident, and the objective of generalization, that is, to make the treatment faster, would be effectively accomplished.

It is pertinent to analyze whether it is valid to select a target-segment on the highest level of complexity considering the occurrence of generalization, when the acquisition of this segment may compromise the stability of the phonological system through the occurrence of regression, which lengthens the duration of the treatment.

Many studies indicate the occurrence of regression in the process of language acquisition, but none of the researches consulted characterized such a process. The lack of studies about the subject has made it impossible to compare the results of this research.

Conclusion

It was observed that regression was more evident in segments from the fricative class in the cases in analysis, and that regression occurred mainly in segments on simple onset, both the ones that were acquired in the IPE and the ones that were not. The data seems to indicate a relation between the feature of oral cavity [cont] of the target and the segments that regressed.

In the clinical practice, the speech therapist must be aware of the evolution of sounds in the phonological system, but it is also important to know that regression is common during the treatment. These processes must start to be considered in the selection of the target-sound in order to make the treatment faster and more effective.

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