

Narração de histórias por crianças com distúrbio específico de linguagem****

Narration of stories by children with specific language impairment

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Abstract

Background: narrative abilities provide rich information about the linguistic, cognitive and social competences of children with typical language development and with SLI (Specific Language Impairment). Children with SLI present deficits in speech elaboration, which is generally confusing and repetitive. Furthermore, there may be difficulty with text organization, understanding the underlying time and cause-effect relationships and in the development of the structural knowledge needed for comprehension. Aim: to characterize the narration of stories by children with SLI regarding the type and content of speech and to compare their performance to that of their typically developing peers, matched according to the chronological age. Method: two groups participated in this study: Control Group (CG), 24 children with no language deficits and Research Group (RG), 8 children with the diagnosis of SLI. To elicit the narratives, a series of 15 stories were used, represented by illustrations containing four scenes each. These sequences were created and classified as mechanical, behavioral and intentional, according to the relationship established between the characters. Results: children with SLI presented poorer narratives when compared to their typically developing peers, independent of the type of story which was presented. Moreover, children with SLI showed a similar perception of the mental states when compared to children with normal development. Conclusions: these results indicate that, regardless the type of story, children with SLI have difficulties in the use of language, that is, with the linguistic abilities necessary to narrate stories and not in the perception of the characters' mental state.

Key Words: Language; Language Development Disorders; Narration.

Resumo

Tema: as habilidades narrativas podem fornecer ricas informações sobre as competências lingüísticas, cognitivas e sociais das crianças com desenvolvimento típico e com DEL (Distúrbio Específico de Linguagem). Crianças com DEL apresentam déficits na elaboração do discurso, que geralmente são confusos e repetitivos. Além disso, há dificuldades na organização textual, compreensão da temporalidade, relações de causa e efeito e desenvolvimento de conhecimento estrutural necessária para a compreensão da informação. Objetivo: caracterizar a narração de histórias por crianças com DEL com relação ao tipo e conteúdo do discurso e comparar o desempenho destes sujeitos com seus pares cronológicos em desenvolvimento típico. Método: participaram deste estudo dois grupos: Grupo Controle (GC), sem alterações de linguagem, composto por 24 sujeitos e Grupo Pesquisa (GP), com diagnóstico de DEL, composto por 8 sujeitos. Para elicitar as narrativas foi utilizada uma série de 15 histórias, representadas por figuras, compostas por quatro cenas cada. Essas seqüências foram criadas e classificadas em mecânicas, comportamentais e intencionais, segundo as relações envolvidas entre as personagens. Resultados: As crianças com DEL apresentam narrativas mais rudimentares se compararmos a seus pares cronológicos com desenvolvimento típico de linguagem independente do tipo de história fornecida. Além disso, as crianças com DEL apresentaram percepção dos estados mentais semelhante às crianças com desenvolvimento normal. Conclusões: estes resultados indicam que, independente do tipo de história fornecida, a dificuldade destas crianças está na utilização da língua, ou seja, nas habilidades lingüísticas necessárias na narração de histórias e não na percepção dos estados mentais dos personagens.

Palavras-Chave: Linguagem; Transtornos do Desenvolvimento da Linguagem; Narrativa.

Introduction

The language manifestations found in Specific Language Impairment (SLI) are varied with its severity level and might be mutable during the development process. The manifestations usually involves: frequently deviant phonologic simplifications (simplifications not observed at normal process of language acquisition); limited vocabulary, showing high use of periphrasis, deictic and representative gestures; difficulties with new words acquisition, simplified grammar structure with limited variation and unusual word arrangement to form phrases. In the presence of comprehension deficits, difficulties in understanding specific words or sentences, such as temporal or spatial markers, might be observed, as well as incorrect linguistic commands, incorrect answers to questions and difficulties to maintain the conversation topic due to the comprehension problems. (1-4)

Considering that SLI is a complex nosologic entity, there is so much to be investigated. Concerning the language manifestations, it's extremely important to identify the possible fails on the various psycholinguistic, oral and written language processing processes, aiming to better direct the therapeutic process.(5)

Therefore, narrative abilities assessment can provide rich and varied information about social, cognitive and linguistic competencies presented by typically developing children and children with SLI. (6)

The narration of stories is a complex task that requires the integration of linguistic, cognitive and social abilities and its potential as clinic evaluation has recently been explored. (7) Moreover, the study of narratives allows the investigation of theoretical questions concerning the relationship between language and cognition. (8)

Some studies observed that children with SLI, besides the already cited issues, also show deficits in discourse elaboration, which is generally confuse and repetitive. (9-10)

Westby et al. (11) refer that children with SLI present difficulties concerning the construction of what the interlocutor needs to hear, in order to comprehend the message, and consequently make inadequate inferences. Furthermore, these children present difficulties in organizing the text, understanding the underlying time and cause and

effect relationships and developing the structural knowledge required for message comprehension.

Thus, the aims of the present study are to characterize the narration of stories by children with SLI, regarding discourse type and content, as well as to compare their performance to that of their typically developing pairs, matched by chronological age.

Methods

Two groups of children participated on this study: Control Group (CG) and Research Group (RG), in a 3 to 1 (control-research) proportion. The consent form was signed by the children's legal tutors, after its approval by the Ethics Committee for the Analysis of Research Protocols (CAPPesq - HCFMUSP, 0666/07).

The CG comprised 24 children of both genders, with ages ranging from 7:2 and 10:10 years (mean age = 8:8 years), selected from a Sao Paulo state school placed in the east zone of the city of Sao Paulo.

The criteria for CG subjects selection was as follows: absence of complaint or previous speech-language treatment, good communicative skills, and satisfactory scholar performance, according to their teachers. Besides that, they should present adequate performance on phonology test and on phonologic awareness and reading and writing tasks. (12-13)

The RG was composed by 8 children of both genders, with SLI diagnosis, with ages ranging from 7:0 to 10:6 years (mean age = 8:9 years), that attended speech-language therapy at the Speech-Language Pathology Laboratory in Language Development and Disorders (SLPL-LDD) of the School of Medicine of the University of Sao Paulo (SMUSP).

To elicit the narratives, a series of 15 stories represented by illustrations composed by four sequential scenes each, was used. These sequences were created and classified by Baron-Cohen et al (14) as mechanical, behavioral and intentional, according to relationships between the characters.

Mechanical Sequences (MS)

Objects interacting causally with each other or people and objects acting causally on each other.

One of the mechanical sequences presents an

egg on a table, the egg rolls over the table, falls off the table, and smashes when it hits the floor.

Six mechanical sequences are used (three of them involving only objects and the others comprising both objects and people).

Behavioral Sequences (BS)

A single person or people acting in everyday routines not requiring attribution of mental states.

One of the behavioral sequences presents a man that rolls some pie dough, puts it in a mold, puts pie in the oven, and the pie is ready to be served.

Six behavioral sequences are used.

Intentional Sequences (IS)

People in everyday activities requiring attribution of mental states.

One of the intentional sequences presents a boy handling a chocolate box, he puts the chocolate box on the table and goes out to play ball with friends. Then, his mom eats the chocolate and the boy feels upset when he sees that the chocolate is gone.

Three intentional sequences are used.

The fifteen stories used in this study, as well as their corresponding pictures, were created by Persinoto (15), based on the above classification.

The experimenter explained to the participants that each story was composed by its sequence of pictures. The first scene of each story was presented to the child and he or she was asked to tell the experimenter what he or she could see in the picture. If the child could not label all the elements of the first scene, they were explained by the experimenter and the other three pictures were only presented after all the picture's elements had been comprehended by the child. Then, the child was asked to arrange the pictures in a sequence and to narrate the resultant story.

All the narratives presented by the participants of both CG and RG were recorded in digital cameras and later transcribed and analyzed by the researcher.

The results were analyzed according to the following criteria, established by Baron-Cohen et al (14).

Discourse types:

. descriptive without connectives - absence of connectives that makes the scenes sequentially related .

. descriptive with connectives - the use of connectives establishes an addition relation among the scenes, without a straight relationship between what is narrated in the previous scene and what happens in the next one.

. implicit causal - use of expressions that give an idea of causality, but are not directly determinants of cause.

. explicit causal - use of causal conjunctions or the explicit mention of the cause agent.

. implicit intentional - use of interjections or non-linguistic utterances that express characters' wishes or feelings.

. explicit intentional - presence of characters' mental state expressions, with the use of verbs that express wishes or when the character's speech is narrated in a shape of a direct discourse.

In occurrence of more than one discourse type at the same narrative, the most complex narrative type was considered for analysis.

Discourse Content ⁽¹⁶⁾:

. pertinency - whether the discourse was or was not relevant to the sequence theme.

. coherence - whether the discourse presents or not the beginning, middle and end, with a entire semantic structure. This criterion is mainly related to narrative comprehension by the interlocutor.

. completion - whether all the actions represented at the scenes were or were not narrated, independently of its presentation order or its comprehension by the child.

Results

For statistic analysis, the chi-square (X²) non-parametric test was used and a 0,05 significance level was adopted. The statistically significant results are indicated by an asterisk and presented in bold.

Groups show differences concerning the narrative or discourse type (X²= 124,47; p< 0,001*)

The RG produced 19% of descriptive without connectives narratives, 40,5% of descriptive narratives with connectives, 30,2% of implicit causal narratives, 1,7% of explicit causal narratives, 3,4% of implicit intentional narratives and 5,2% of explicit intentional narratives.

The CG produced 14,4% of descriptive narratives with connectives, 48,9% of implicit causal narratives, 5% of explicit causal narratives, 7,8% of implicit intentional narratives, and 23,9% of explicit

intentional narratives. It was not observed descriptive without connectives narratives for CG.

Therefore, the RG showed predominant production of descriptive with connectives narratives, followed by implicit causal narratives. Concerning CG, the most frequently narrative type presented was the implicit causal, followed by the explicit intentional.

Narratives produced from the mechanical stories analysis (Table 1) revealed significant differences between groups regarding narrative type ($X^2=68,16$; $g.l.=5$; $p=0,001^*$). The RG presented predominant production of descriptive with connectives narratives, followed by implicit causal narratives, whereas the CG showed predominant production of implicit causal narratives, followed by explicit intentional narratives.

Concerning the behavioral stories (Table 2), significant differences between groups, related to narrative type, were also found ($X^2=39,994$; $g.l.=5$; $p<0,001^*$). The RG showed predominant production of descriptive with connectives narratives, followed by descriptive without connectives narratives, whereas the most frequent

narrative type presented by the CG was the implicit causal, followed by the explicit intentional.

Regarding the intentional stories (Table 3), differences between groups were also found ($X^2=31,886$; $g.l.=4$; $p<0,001^*$). Due to its low frequency of production, descriptive without connective narratives were not considered for the comparative analysis. For RG, it was observed predominant production of descriptive with connective narratives, followed by implicit causal narratives, whereas the most frequent narrative type presented by CG was implicit causal, followed by the explicit intentional.

There were observed significant differences between groups concerning narrative content. The CG produced 100% of the narratives with a pertinent content, while for RG, pertinency was found only in 90% of the narratives ($X^2=36,92$; $g.l.=1$; $p<0,001^*$). Coherent contents were observed in 93,6% of CG narratives and in 51,7% of RG narratives ($X^2=112,88$; $g.l.=1$; $p<0,001^*$). Concerning the completion, 90,3% of CG children and 47,5% of RG children presented completed narratives ($X^2=101,36$; $g.l.=1$; $p<0,001^*$).

TABLE 1. Distribution of narrative type for each group: Mechanical Sequences

Narrative Type	Descriptive Without Connective	Descriptive With Connective	Implicit Causal	Explicit Causal	Implicit Intentional	Explicit Intentional
GC	0	52 (14,4%)	176 (48,9%)	18 (5%)	28 (7,8%)	86 (23,9%)
GP	22 (19%)	47 (40,5%)	35 (30,2%)	2 (1,7%)	4 (3,4%)	6 (5,2%)
$X^2 = 124,47$; $g.l. = 5$; $p<0,001^*$						

TABLE 2. Distribution of narrative type for each group: Behavioral Sequences

Narrative Type	Descriptive Without Connective	Descriptive With Connective	Implicit Causal	Explicit Causal	Implicit Intentional	Explicit Intentional
GC	0	23 (16%)	88 (61%)	4 (2,8%)	5 (3,5%)	24 (16,7%)
GP	14 (29,2%)	19 (39,6%)	15 (31,3%)	0	0	0
$X^2 = 68,158$; $g.l. = 5$; $p<0,001^*$						

TABLE 3. Distribution of narrative type for each group: Intentional Sequences

Narrative Type	Descriptive Without Connective	Descriptive With Connective	Implicit Causal	Explicit Causal	Implicit Intentional	Explicit Intentional
GC	0	29 (20,1%)	60 (41,7%)	6 (4,2%)	14 (9,7%)	35 (24,3%)
GP	7 (15,2%)	20 (13,9%)	13 (9%)	0	4 (2,8%)	2 (1,4%)
$X^2 = 39,994$; $g.l. = 5$; $p<0,001^*$						

Discussion

The children with SLI presented poorer narratives when compared with their typically language developing peers, no matter the type of story provided. These findings suggest that, regardless the narrative type, these children have difficulties not in the perception of the character's mental state, but in the use of language, that is, in the linguistic abilities needed to stories narration. Besides that, regarding narratives cohesion and completion, there was observed great discrepancy between groups, indicating that children with SLI present inability to deal with morphosyntactic structures.

These results corroborate other studies that found production of shorter and less cohesive stories, with the presence of syntactic, semantic and morphologic errors by children with SLI, due to the linguistic deficits that characterize them. (8, 17-18)

Newman and Macgregor (19) pointed out structural differences, concerning narratives production by children with SLI, when compared to normally developing children. The SLI children presented shorter stories, lower performance on mean length utterance (MLU), a higher proportion of ungrammatical phrases and significantly fewer story thematic elements, when compared with their chronologic peers with normally developing language.

Other studies have shown that the narratives produced by children with SLI are characterized for fewer grammatical components, small number of entire episodes and few cohesion elements, when their performance is compared to that presented by their chronologic peers with normally developing language. (17, 20-21)

Moreover, when compared with their peers, children with SLI are reported to present a significantly smaller number of syntactically complex sentences, less elaborated phrases and a greater number of grammatical errors. (8, 20, 24-27)

Conclusion

The results of the present study revealed differences between groups concerning the narrative and content types. The children with SLI presented a higher occurrence of descriptive with connectives narratives, whereas the children with typically developing language presented a higher number of implicit causal narratives. Furthermore, there was observed a great discrepancy between groups concerning the narrative contents, since almost all the narratives produced by children from the CG were coherent and completed whereas only half of narratives produced by RG presented the same configuration.

The deficits observed in the narratives produced by the group with SLI evidence the conversational difficulties presented by these children, which influence their social competence development, implicating in social, cognitive, academic and behavioral aspects.

Finally, it's important to consider the narrative abilities assessment during the language diagnosis process or even during the therapeutic process, since it allows the investigation, by the speech-language pathologist, of the linguistic, cognitive and social competences presented by these children. Besides that, it provides important evidence for directing the therapeutic process in a more effective way.

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