
LANGUAGE ALTERATION IN TWINS: A REPORT CASE

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CAMPOS, Carolina Ferreira et al. Language alteration in twins: a report case. *Salusvita*, Bauru, v. 23, n. 3, p. 523-530.

ABSTRACT

Most twin children present pre, peri and pos natal complications, that can be risk factors for possible language alterations. This study aims to describe language alterations in twins and the intervention process. Two male twins, 3 1/2 years old were submitted to language evaluation. Results revealed restricted dialogue to social environment, impaired speech intelligibility, idiosyncratic simplifications and efficiency of the secret language between them. It is concluded that the intervention process reduced efficiency of the secret language and that the familiar orientation promoted the socialization of the twins.

KEYWORDS: twins; language; alteration

INTRODUCTION

The acquisition and development of language is a key step in the child's life, mainly because it leads to the discovery and to the communication with the world. In order for this development to be correct it is necessary some genetic, organic, physical and environmental conditions (SPINELLI, 1983; TABITH Jr.,1986; ANDRADA, 1989).

Received on: February 16, 2003.
Accepted on: November 30, 2004.

Literature mentions that most twins show pre, peri and post natal interferences such as prematurity, low weight and hospital admission, situations that can present risk factor for alteration in language (MCMAHON; DODD, 1997; TOMBLIN; BUCKWALTER, 1998).

The investigation of twins with language impairment has been an area of great interest. Research in this area reveal that twins can provide important data for genetic studies in terms of the identification of genes linked to language pathologies.

The importance of the psychological aspect in the development of this population should also be emphasized, mainly in the interference of the relation between brothers and the possibility of a delay in the development of language (LIMONGI et al., 2000). In the broad sense, studies on language alteration in twins have followed two paths: one that investigates the biological aspects, as mentioned before, and another that investigates the interactional aspects (MOGFORD, 2002).

In what regards the interactional aspects, two hypotheses to explain the delay of language in twins are considered: a narrow relationship between the twins reduces the need for verbal development and reduces the opportunity and the motivation for communication. The strongest evidence for this hypothesis is the observation that the so called *secret* or *autonomous language* among twins (BISHOP; BISHOP, 1998), also known as cryptophasia is the result of an auto-sufficiency between twins as they develop their own system of communication and lose interest in the communication system provided by the linguistic environment, provoking thus a delay in the socialized language. They see each other as a role model and, the speech becomes unintelligible for other people.

Another hypothesis is that parents have limited resources in terms of quantity and quality regarding their interaction with children, that is, the triple nature of the interaction mother-twins restricts the environment for each of the twins. Although mothers of twins are as active as mothers of non-twins there is a need to share the attention, which makes the communication less efficient (TOMASELLO et al, 1986).

The development of speech and language is usually delayed in twins of both sexes and, comparing monozygotics with dizygotics, the former show a greater incidence of alterations suggesting the presence of a genetic component (LEWIS; THOMPSON, 1992).

The aim of the present study is to describe the findings about language two homozygotic twin brothers verifying the presence or

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of secret language absence, and to describe the process of speech therapy intervention stressing the aspects that bear a direct role in obtaining a socialized language.

MATERIAL AND METHODS

Two male twins, ANS and GAS, 3 1/2 years old took part in this study .

The children underwent ENT, psychological and speech evaluations including audiological exams in the speech therapy clinic of FOB/USP campus Bauru in the second semester of 2001. The diagnosis was language development delay with no auditory or cognitive sensorial deficit. The psychological evaluation revealed a interdependency between the brothers with negative repercussion in their process of individualisation and separation. The delay was credited to the twin condition.

The language alterations were characterized after four sessions of speech evaluation, being two individual and two conjoint sessions (with both children in the same room).

A semi-directed interview was done with the mother the history of the delay complaint and/or the alteration on the language development; personal past history, family past history for language delay; overall cognitive development; physical and motor development; development of the stomatologic system and social and environmental conditions.

Specifically for language evaluation two procedures were used:

- 1) sample of the spontaneous language by means of behavior observation recorded on a VHS tape. Intentionality, functionality, means of communication, participation in dialogic activity and oral language were evaluated.

- 2) sample of directed language by means of naming thematic figures. It was used five thematic figures proposed by Yavas et al. (1992). In the process of naming the phonologic and vocabulary aspects as the figures involved different semantic fields such as means of transportation, bathroom and kitchenware, furniture, toys and pets were evaluated . In this condition children were also asked to repeat a list of words similar to the ones in the naming process aiming to compare the performance with and without linguistic model.

In 2002 patients were asked to come to the Language Clinic of the University for individual sessions twice a week.

The therapeutic planning included the following objectives:

- to reduce the self-efficiency of the secret language leading the children, individually, to participate in the dialogic interaction with others (therapist, teacher, classmates.)
- to increase the vocabulary by means of naming games;
- to stimulate the processes involved in more organized enunciates by means of expansions and reformulations within the dialogic context;
- to increase the vocabulary by means of naming games;
- to stimulate the processes connected with speech perception by means of “auditory bombing”;
- to promote improvement of intelligibility of speech by means of selection and elimination of phonologic simplification processes;
- to guide family through systematic talks in what regards the importance of autonomy and differentiation of the children and of their separation in the class room aiming to promote socialization.

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RESULTS

First phase – results obtained in the anamnesis and language evaluation (2nd semester of 2001)

According to data from the semi-directed interview, complains were about the delayed language development. First words appeared late, after 2 years, and since then communication occurred only between them and the elder brother. The language was not understandable to others. They were term children from cesarian weighing 2600 g and there were no pre, peri or post natal interurrences. The social environment was restricted: there was no contact with other children and they did not go to school or a day care center.

There was no family history of language delay and/or delay in other developmental aspects.

The sample of spontaneous language by means of behavior observation revealed international and functional communication by means of words, phrases and idiosyncrasies inserted in jargon speech. The participation in dialogic activity was restricted with evaluators, but ample between the children. It was observed a

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proper language between the twins and no difficulty was observed in what regards the understanding of the oral language.

In the sample of directed language by means of thematic figures unexpected simplifications were observed for their such as: reduplication - for café (coffee) /fɛ'fɛ /; omission of syllable – for árvore (tree) /'aRvi/; omission of initial liquid – for latir (barking) /a'tir/; assimilation – for dinheiro (money) /de'deru/; oclusivation – for fumaça (smoke) /bo'basɑ/, for chapéu (hat) /pa'pɥu/; besides process of idiosyncratic simplification such as: palhaço (clown) /gay'ado/, for cão (dog) /tu'ku/. Once the models were set both patients showed improvement in their behavior.

In what regards vocabulary they named 85% of the words represented in the thematic figures, as well as objects, actions and attributes during the sessions. In this way, the vocabulary was considered satisfactory.

Second phase – results of the anamnesis and evaluation (2nd semester of 2002)

According to information obtained in the second round anamnesis, patients went regularly to the day nursery in the morning but were in the same room. The mother reported their children presenting some improvement in communication, speaking more and clearer. She said she was making efforts to follow the directions previously furnished to her concerning stimulation.

It was said that the children were still sleeping in a same bed and not doing alone some daily activities such as eating.

The evaluation revealed results similar to the ones previously reported. However, it was noted improvement in the production and in the understanding of speech as well as amplification of the vocabulary. The phonologic simplifications continued but became more sporadic. The idiosyncratic simplifications ceased.

Third phase – results after 3 months of speech therapy treatment

The speech therapy sessions were individual and with different therapists in order to stimulate the child to participate in the dialogic interaction with others. Sessions outside the clinics were done with the same objective. It was observed a greater participation in dialogic activities with other participants.

The children were still in the same room in the day care center due to the fact there was no other room available in the same period and due also to the resistance of the mother in allocating them in different periods; according to her, their children would not accept this separation. The therapist visited the day nursery aiming to inspect the local conditions regarding the relations with other children in the school environment; it was observed and reported by their teacher that they were together most of the time although they interacted positively and played with other classmates.

It was possible to detect a better organization of the enunciations and a consequent improvement in the intelligibility of their speech. The simplification process, reduplication, occlusion and assimilation, as well as the jargon speech, were ceased. The anteriorization occurred in a non-systematic way.

According to the mother's report, the directions were applied, the talks with the patients at home became more frequent and she could observe a considerable evolution regarding both the oral language and the behavior in front of strange people. The therapists, however, do not feel that the therapeutic work has had continuity in the family environment, what makes the evolution of the case more difficult.

DISCUSSION

Based in the anamnestic data it was not possible to clarify risk factors for language delay such as prematurity, low weight or hospital admission (MCMAHON; DODD, 1997; TOMBLIN; BUCKWALTER, 1998). From the perspective of biology concerning language alteration in twins the sole relevant aspect was that the children were monozygotic and male, suggesting a genetic component (LEWIS; THOMPSON, 1992).

Conversely, interactional explanation for language delay, in the present study, are more congruent.

The close relation between the twins was observed not only through the identification of a proper language, which was understandable only by them and the elder brother, but it was also observed in the psychological findings that revealed interdependence with disadvantageous repercussion in the process of individualization and separation (BISHOP; BISHOP, 1998; MOGFORD, 2002).

The lack of relationship with other children and other speakers could have interfered in the normal development of their language as long as the interactional privation could be seen as a

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factor of language delay (SPINELLI, 1983; TABITH Jr, 1986; ANDRADA, 1989).

According to data from the anamnesis the deficient interaction between parents and twins seemed to occur in the family milieu, making the environment restrictive to each of the twins (TOMASELLO et al, 1986).

During the period between the speech evaluation and the beginning of the therapeutic intervention (first and second phase) the patients showed a clear improvement in the intelligibility of speech due probably to the insertion of both in the regular school, modifying the interaction pattern and models (MOGFORD, 2002).

Besides that, the speech therapy stimulated the process involved in speech perception by means of auditory bombing and promoted an improvement in the intelligibility of speech with selection and decrease of the processes of phonetic simplification.

Directions to family member by means of systematic talks regarding the importance of autonomy and differentiation of children, besides recommending a model of non-infantile language, seems to be promoting the development of both more intelligible and socialized language. Limongi et al. (2000) in studies about treatment in twins assures that the speech therapy is solely effective when coupled family orientation.

Based in the evolution of these children it was possible to infer that the therapeutic directions used were adequate to attain good linguistic development.

CONCLUSION

The delay in language development observed in the present study was similar to the one found in the literature: restricted dialogic activity with the social environment, impaired speech understanding due to persistence of immature grammar and phonologic forms, presence of idiosyncratic simplifications and development of a secret language inter pares.

The process of speech treatment aimed to reduce the auto-efficiency of the secret language, leading each children to participate in the dialogic interactions with the other. Family orientation, acquired by systematic talks stressing the importance of autonomy and differentiation of the children, and the use of a non-infantile language model, promoted the process of socialization of the studied twins.

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