

# Problemas de linguagem oral e enurese em crianças\*\*\*

## Oral language disorders and enuresis in children

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### Abstract

Background: co-occurrence of oral language disorders and enuresis in children. Aim: to identify and analyze the relationship between instances of oral language disorders and enuresis in children. Method: clinical, quantitative and qualitative study, with a descriptive/interpretative outline, presented through two distinct situations. "Situation 1" refers to a group of 120 children between 3:0 and 10:0 years old, independently of gender and age, from a philanthropic Institution in Greater São Paulo. "Situation 2" refers specifically to the evaluation of children who have oral language disorders and enuresis. Results: results indicated that enuretic children present a higher percentage of oral language disorders when compared to non-enuretic children, especially phonological disorders and talking very little. These results support the studies on co-occurrence of enuresis and oral language disorders, presented in papers that attribute a bio-psychic etiology to this co-morbidity. Conclusion: results indicated a relationship between enuresis and oral language disorders. Considering the interactions among language, body and psyche, it is suggested that speech therapists, when dealing with oral language disorders in children, also investigate the acquisition of their bladder sphincter control, in a bio-psychical approach.

**Key Words:** Enuresis, Child Language, Language Disorders, Psychoanalysis.

### Resumo

Tema: co-ocorrência de problemas de linguagem oral e enurese em crianças. Objetivo: Identificar e analisar possíveis relações entre problemas da linguagem oral e enurese em crianças. Método: pesquisa clínico-quantitativa-qualitativa de caráter descritivo/interpretativo apresentada em duas situações distintas. A "situação 1" refere-se a um grupo de 120 crianças, entre 3:0 e 10:0 anos, independente das variáveis sexo e idade, que frequentam uma Instituição da Grande São Paulo. A "situação 2" refere-se especificamente à avaliação de crianças que apresentam a co-ocorrência de problemas de linguagem oral e enurese. Resultados: os resultados apontaram que, comparativamente, as crianças enuréticas tendem a ter mais problemas de linguagem oral que as não enuréticas, especialmente desvios fonológicos e o fato de falarem pouco. Tais resultados corroboram os estudos sobre a co-ocorrência de enurese e problemas de linguagem oral, apresentados em trabalhos que atribuem etiologia bio-psíquica a essa co-morbidade. Conclusão: os resultados indicaram relação entre enurese e problemas de linguagem oral. Considerando-se os efeitos recíprocos entre linguagem, corpo e psiquismo, sugere-se que os fonoaudiólogos que se ocupam dos problemas de linguagem em crianças também investiguem a aquisição do seu controle esfinteriano vesical, numa abordagem bio-psíquica.

**Palavras-Chave:** Enurese, Linguagem Infantil, Transtornos da Linguagem, Psicanálise.

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## Introduction

Common difficulty to many families around the world, childhood enuresis (involuntary and unconscious urination after the age of five years, with intact urinary system) 1-2 is one of the symptomatic occurrences registered by the speech therapist when treating children with language disorders.

Enuresis can be daytime and/or nocturnal, 1-2 primary (when there is no bladder sphincter control) or secondary (when occurs or recurs after long intervals), 2-4 this last one directly related to emotional conflicts and emotional regression. 1,5-7 Studies of enuresis are addressed in their biological 1-3, 6,8 and / or psycho-socials aspects. 1-3, 5-6,9-13

From the bio-psycho point of view, it is considered that the human being is not reducible to his biological dimension, since mental representations of subjective order correspond to any organic state. 1,3,6-7,14-16

In the psychoanalytic perspective, the symptom in small children is often a body response, built in a context sustained by a symbolic web. 17 Adults verbalizations while touching their bodies, for example during the scenes of feeding 18 and hygiene, 16 introduce language in their subjective constitution, and may cause conflicting emotions in children, triggering, among others, language disorders and enuresis. 1,3,7 Specific literature highlights that the co-occurrence of oral language disorders and enuresis in children is scarce, 3,19 particularly in the theoretical approach proposed here. In this context, this study aims to identify and analyze possible connections between oral language disorders and enuresis in children, in a bio-psycho approach.

## Method

Clinical-quantitative and qualitative research, with a descriptive/interpretative outline, presented in two different and complementary situations. This research was approved by the Ethics and Research Program of Post Graduate Studies in Speech Pathology at Pontifícia Universidade Católica (PUC-SP) (protocol number 325/2008) and the Free Consent Term was signed by all responsible involved.

## Casistry

.situation 1: 104 children who attend an Institution in Greater São Paulo area, between three and ten years old, disregarding sex and age. The choice of this age is justified by: neurological maturity<sup>2</sup> and the stage of psychosexual development of childhood that includes the end of the oral phase to the end of the latency period.<sup>17</sup>

.situation 2: 14 children that present the co-occurrence of oral language disorders and enuresis, selected in situation 1.

## Procedure

. situation 1: 120 questionnaires were distributed to verify the occurrence of oral language disorders and/or enuresis, and 104 were answered by the children's responsible. One child returned the questionnaire unanswered about the occurrence of enuresis. The answers given by parents in relation to the occurrence (or not) of enuresis were accepted as true, and their inclusion for further analysis of the results did not depend on any specification as to the frequency, time of occurrence (day and/ or night) and subtype of enuresis (primary/secondary). At the end of data collection, a table was elaborated containing the following categories: name, gender, date of birth, age, language disorder (yes/no), daytime enuresis (yes/no), nocturnal enuresis (yes/no). The co-occurrence of oral language disorders and enuresis was analyzed using descriptive statistics: mean, standard deviation, minimum, median and maximum. The t-Student test and Fisher exact test 20 were used, and the data obtained by statistical correlations were also interpreted from a bio-psycho approach.

. situation 2: 14 children, all enuretic, were selected by the answers obtained from the sent and returned questionnaires, but only 10 had complaints of oral language disorders. Each child was submitted to an individual language evaluation, through clinical observation in dialogical and ludic context. In addition, the Behavioral Observation Protocol (Proc), specifically the item Communicative Skills (HC), was applied, through the items: 1a (dialogical or conversational skills), 1b (communicative functions), 1c (means of communication) and 1d (levels of contextualization of language).<sup>21</sup> The connections between language disorders and enuresis were examined from a bio-psycho approach.

## Results

. situation 1: the sample consists of 104 children with a mean age of 86,9 months (standard deviation 21,9 months), 41 (39,4%) female and 63 (60,6%) male. Aiming to describe the age values observed in the sample, descriptive statistics were calculated: mean, standard deviation, minimum, median and maximum, and constructed box-plots of this variable in groups with and without language disorders, and with and without enuresis. The average of ages in groups with and without language disorders were compared using the t-Student test. The same procedure was used to compare the average of this variable in groups with and without enuresis. The prevalence of oral language disorders and enuresis were spot estimated and built confidence intervals of 95%. The association between enuresis and language disorders was evaluated through the Fisher exact test. The statistical techniques adopted are described in Fisher and Van Belle<sup>20</sup>. Significance level of 0,05 for all hypothesis tests was adopted. Table 1 presents the percentages of children with both daytime enuresis and nocturnal enuresis.

Table 2 shows the frequency distributions and percentages of language disorders in children with and without enuresis. We can observe that, from the parents' answers to the questionnaire, 56 children in this sample have complaints of language disorders (53,9%).

The percentage of children with language disorders without enuresis is 50,6%, a lower value than the observed in children with enuresis (68,8%). However, from a statistical viewpoint, no differences were detected between the percentages of occurrence of language disorders in children with and without enuresis ( $p = 0,276$ ).

These results were not statistically significant, but can be analyzed through subjective interpretation. Therefore, although it is not possible to make statistical generalizations, it was observed, from the parents' answers to questionnaires, that enuretic children had more oral language disorders than non-enuretic, especially concerning "speak little". The percentage of children with the complaint "speak little" in the group with enuresis is 25,0%, while the percentage of children without enuresis with this same complaint is 5,80%.

From the psychoanalytic point of view, the fact that a child "speaks little" is an indication of inhibition, abandonment or restriction of an ego function, because its practice would produce anxiety<sup>22</sup>. Anxiety and language difficulties are

common in children with selective mutism,<sup>23</sup> and researches indicate that enuretic children may also have difficulties of expression. 3,9,19,24-25.

. situation 2: from the individual speech therapy evaluations of the 14 enuretic children, it was observed that all those whose parents complained of enuresis had some oral language disorder. The results of individual evaluations will be described below, complemented their scores in Proc.

1. Female - 3:7 years old - short but intelligible statements; poor oral language. Anterior unsystematic sigmatism (distortion of / s / and / z / ). Occasionally, some vocabulary changes (olhos - [z 'yus]) - Proc 67 - daytime enuresis
2. Female - 7:7 years old - dialogue interaction, despite speaking little spontaneously. Very tense. Unsystematic omission of the phoneme / r / in consonant clusters, omission of archiphoneme {R}; failures in verb agreement (mainly numbers), a slight increase of saliva in the lower bucal vestibule , protruded upper teeth and everted lower lip - Proc 65 - daytime and nocturnal enuresis.
3. Female - 9:0 years old - speaks little - Proc 63 - nocturnal enuresis.
4. Male - 4:4 years old - hoarse voice, short and unintelligible sentences, drooling and mild hypotonia of the oral muscles, protruded upper teeth - Proc 55- nocturnal enuresis.
5. Female - 5:8 years old - short sentences, childlike speech, imprecise articulation, unsystematic omission of the phoneme / r /, including consonant clusters, voice disorders, Proc 54 - nocturnal enuresis.
6. Male - 6:7 years old - omission of / r /, including consonant clusters, omission of archiphoneme {R}, talks with increased speed - Proc 54 - nocturnal enuresis.
7. Male - 8:0 years old, speaks little, failures in verb agreement, slight voice alteration, unsystematic omission of archiphoneme {R} - Proc 54 - nocturnal enuresis.
8. Female - 6:10 years old- omits / r / in consonant clusters and archiphoneme {R} or substitutes for / X /; replaces / ? / and / ? /, respectively, by / s / and / z /; hypotonic perioral muscles - Proc 52 - nocturnal enuresis.
9. Male - 3:8 years old - mild drooling, hiponasal voice; mild hypotonic oral muscles, oral breather - Proc 49 - daytime and nocturnal enuresis.
10. Female - 5:10 years old - monosyllabic speech, anterior sigmatism; unsystematic omission of / r / in consonant clusters and archiphoneme {R};

hypotonic tongue - Proc 46 - daytime and nocturnal enuresis.

11. Male - 9:5 years old - low voice, barely audible, speaks little - Proc 39 - nocturnal enuresis.

12. Female - 7:10 years old- mild drooling, hypotonic oral muscles; anterior sigmatism; open bite; talks little, short statements, faulty verb agreement - Proc 33 - nocturnal enuresis.

13. Male - 5:10 years old- talks little, does not maintain dialogue; anterior sigmatism, unsystematic omission of / r / in consonant clusters and systematic omission of archiphoneme {R}; low intensity voice - Proc 26 - nocturnal enuresis.

14. Male - 8:0 years old - speaks little, short statements, voice disorders - Proc 24 - nocturnal enuresis.

Eight of the 14 enuretic children individually evaluated had reached the age of five, the milestone of full acquisition of Brazilian Portuguese phonological system 26, and seven of them presented systematic or unsystematic omissions of the phonemes / r / and/or {R}, indicating phonological disorder and phonological acquisition delay 27. It is important to consider that the variable immaturity is also part of the enuretic disorder, concerning organic, physiological, psychomotor and/or affective aspects. 1-3,6-7,24

The 14 enuretic children evaluated scored below 70 (maximum expected value) in Proc. The average of these scores were calculated, and it was observed that: 8 children (57,14%) were above average, 1 child (7,14%) was at average, and 5 children (35,71%) were below average.

6 from the 8 children above the average (42,8%) had already reached the age of 5. Despite having the best scores at Proc, these 6 children showed predominantly phonological disorders: 4 (66,6%) omitted / r /; 4 (66,6%) omitted {R}; 1 (16,6%) distorted / s / and / z /; 1 (16,6%) replaced / ? / and / ? / respectively to / s / and / z /. Furthermore, 3 (50%) had voice disorders (hoarseness) and 3 (50%) spoke little.

In the 5 children below average (37,72%), there were also detected phonological and voice disorders, but "little talk" had 100% incidence. This finding was more compatible with the results obtained from Proc, since once identified by the researcher as children who "talk little," these children had below-average performance concerning communicative skills.

The results of sub-items that make up the Communicative Skills (HC), 1a (dialogical or conversational skills), 1b (communicative functions), 1c (means of communication), 1d (level of contextualization of language) and the total result HC (maximum score = 70) were transformed into percentages. Then, the values of descriptive statistics: mean, standard deviation, minimum, median and maximum percentage scores were calculated. The highest average percentage of correct answers was obtained in the first item (1a - dialogical or conversational skills) and the lowest average percentage of correct answers was obtained in 1b (communicative functions). (Table 3).

In addition to the data found in the psychoanalytic literature, researches in psychology field indicate that enuresis may also be related to language disorders, specifically concerning delays, difficulties and slowness in global oral expression.<sup>3,19</sup>

In summary, considering primarily the results for each individual assessment, which were complemented by the results obtained from Proc, it can be stated that all enuretic children evaluated showed impairments in communicative skills. Phonological disorders, especially the omission of phonemes / r / and {R}, and "little talk" were the most frequent findings. And in these cases, there was prevalence of nocturnal enuresis. Taking a conception of language that articulates the symbolic functioning to the psychological functioning<sup>18,28-30</sup> into consideration, the co-occurrence of language disorders and enuresis in children shows their bio-psycho-social impairment. From this perspective, enuresis, such as language, also has symbolic function.<sup>7</sup>

TABLE 1. Frequencies and percentages of daytime enuresis and nocturnal enuresis

Daytime enuresis	Nocturnal enuresis			Total
	No answer	No	Yes	
No answer	1 1%	0	0	1 1%
No	0	87 83,7%	12 11,5%	99 95,2%
Yes	0	1 1%	3 2,9%	4 3,8%
Total	1	88	15	104

TABLE 2. Frequencies and percentages of language disorders in children with and without enuresis

Enuresis	Language disorders		Total
	No	Yes	
No answer		1 100,00%	1 100,00%
No	43 49,40%	44 50,60%	87 100,00%
Yes	5 31,3%	11 68,8%	16 100,00%
Total	48 46,20%	56 53,90%	104 100,00%

TABLE 3. Descriptive statistics for the Behavioral Observation Protocol score (Proc)

(%)

PROC	N	Mean	Standard deviation	Minimum	Median	Maximum
Total 1 a (%)	14	82,9	20,2	40,0	90,0	100
Total 1 b (%)	14	57,6	33,0	0,0	66,7	100
Total 1 c (%)	14	72,5	18,1	45,0	75,0	100
Total 1 d (%)	14	64,3	30,6	33,3	66,7	100
Total HC(%)	14	69,5	19,5	34,3	75,7	95,7

Proc: Behavioral Observation Protocol.

## Conclusion

The results showed that, in comparison, the enuretic children tend to have more oral language disorders than the non-enuretic ones.

The interpretation of the co-occurrence of both body marks, from the inseparability among language, body and psyche, makes it possible to affirm that, whenever in front of children who have oral language disorders, speech therapists must investigate their bladder sphincter control. Likewise, when in contact with an enuretic child, it is important to pay attention

to possible oral language disorders. Moreover, it is suggested that the communicative functions of language (instrumental, protest, interactive, appointment, informative, heuristic and narrative) be investigated in enuretic children, and that further studies may be conducted considering the co-occurrence of oral language disorders and enuresis in children, particularly in relation to psychic contents involved in these clinical signs, in order to improve speech therapy clinical method in these cases.

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