

ASSESSMENT OF STUTTERING SEVERITY

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S u m m a r y. The article discusses the criteria of assessment of stuttering severity in terms of their implications for organizing the support to stuttering. The author emphasizes the role of these criteria not only for the choice of corrective methods but also to evaluate their effectiveness and predict further course of this speech disorder. The results present experimental data of quantitative assessment of subjective and objective manifestations of stuttering.

Key words: stuttering, measure of stuttering, subjective and objective assessments, forecast.

INTRODUCTION

Ideas about the severity of stuttering are essential to study this complex disease and develop tactics of its treatment. There is an urgent necessity to harmonize methods of assessing the severity of the violation with the use of precise quantitative criteria. Thus it is necessary that selected indicators allow considering two main symptoms of stuttering: motor and mental. However, at present there is no single universally accepted way to assess the severity of stuttering, taking into account the severity of motor-speech disorders and features of the mental status of patients.

ANALYSIS OF THE PROBLEM

Speech disorders are of primary importance to assess the severity of stuttering in speech therapy practice. But in fact, expert assessment is used, aimed at grading stuttering severity: mild, moderate, high and very high. Another option of assessment of stuttering severity provides a ranking of speech

forms (conjugated, reflected, reading and so on) according to the proposed degree of difficulty [Stuttering, 1978]. This estimate is based on the idea of peculiar reverse development of speech among stutterers, when its latest arising forms are mainly affected. Some authors suggest using the assessment of stuttering with additional symptoms [Asatiani NM, 1978; Missulovin LY, 1997]. In this case, a method of evaluating the severity of stuttering loses its integrating function, because it does not imply any algorithm for summing symptoms. Finally, some authors prefer neurotic manifestations in assessing the severity of stuttering [Shklovsky, VM, 1979; Silverman E.-M., 1980].

Predicting the course of stuttering is also difficult. Literary information about prognosis is also very scattered and scarce. For example, G. Wagga (1981) indicates that the qualitative data on the subject are not available. In the native (Russian) literature the question of long-term prognosis of stuttering is solved either by evaluating the effectiveness of the immediate treatment results [Daskalov D., 1962; Demin II, 1962; Bar SI, 1966] or by catamnestic studies [Kiseleva MN, 1971; Osokin BK, 1971; Kazakov VG, 1973]. Developing the criteria of the severity of stuttering is important for comparative assessment of the effectiveness of different therapeutical strategies [Blomgren M. At all, 2005]. Thus, analysis of the literature allows to speak about dissatisfaction of the existing ways of assessing the severity of stuttering.

Therefore it seems necessary to use not only subjective methods but also quantitative criteria for

assessing various manifestations of stuttering and those associated with stuttering.

RESULTS OF THE STUDY

In order to solve this problem, we attempted to use the experience, gained in the Department of Speech Pathology Research Institute of Leningrad ENT, to select practically acceptable methods of quantitative assessment of clinical manifestations of stuttering.

In this article we present two kinds of data, namely, the comparison of stutterers with varying degrees of disease severity using a number of methods (the time of reading a part of prose, "the voice alarm" on a scale by R. Erikson, personal performance by questionnaire G. Ayzenk, tempo of writing vertical lines in the maximum rate of the right and left hand, the rate of writing the letters "O" and "ZH", the results of treatment in points).

The examined group consisted of 55 patients from the Children's Department of Speech Pathology at the age of 7-14 years, and 68 patients from the Department of Speech Pathology for Adults aged 15 years and older. The ratio of males and females in our sample corresponded to the published data: for children it was 2.5, for adults - 3.0. The age of the onset of stuttering in the same age group corresponded to the data given in the literature.

The study was conducted in patients with moderate and high degree of stuttering according to clinical diagnosis. Average degree of stuttering as it is accepted by most experts, was characterized by moderate number of stammering and pauses in spontaneous speech and an increase in the emotional significance of the situation. Different forms of speech (prose, reading, singing, and so on.) were affected. High degree of stuttering was characterized by a significant amount of stammering and pauses in different forms of speech and a large amount of speech situations, provoked paroxysms of stuttering. Excitement during speech at a given form can not only reduce it but also leads to a pronounced vegetative reactions associated with movements.

The table below shows the above-mentioned objective characteristics of stuttering with medium and high severity of illness determined on clinical assessment. In patients with high degree of stuttering the onset of speech disorders was noted at an earlier age, but statistically this difference was not significant. In the group of stutterers with high

degree of stuttering there were more patients with stuttering relatives. More high degree stutterers were male than female.

Standard text reading speed in high stuttering is lower than medium degree, but in the group of stuttering adults this difference does not reach the level of confidence, whereas in children it is reliable ($p < 0.001$). The patients with high severity of stuttering demonstrated significantly increased level of speech anxiety. We have found that the scale of R. Erikson can be divided into three groups of eight questions each, and they allow us to estimate the anxiety associated with the quality of speech, with the uncertainty in language ability and the quality of speech communication. It turned out that the indicators, characterizing these types of alarms are ranked in stutterers in the following sequence, making up 6.4, 6.1 and 5.9 points respectively.

Table 1. Physiological and psychological characteristics of stutterers

Characteristics	The severity of stuttering				Criteria of student
	Medium		High		
	X	σ	X	σ	t
Time of reading a text in 100 syllables	33.33	18.77	41.38	16.41	2.25
The level of „speech anxiety” before treatment (in points)	15.31	4.39	19.70	3.75	<u>5.33</u>
Neuroticism (in points)	11.69	4.68	14.00	2.94	<u>3.71</u>
Introversion (in points)	13.08	2.72	14.08	1.89	2.11
The number of vertical lines, written at a maximum rate of 10 s. by the right hand	45.90	7.05	39.65	8.95	<u>4.91</u>
Left hand	39.00	8.60	33.73	9.02	<u>2.96</u>
The number of recordable at a maximum rate of 10 s. the letters „O”	23.55	2.70	21.27	4.17	<u>4.06</u>
«ZH»	8.27	1.74	8.27	2.69	0

* The underlined values correspond to significant differences.

The level of neuroticism, as an indicator of general neuroticism, also increases with the severity of stuttering, which manifests itself in the tendency to isolation, in focusing on patient's own

problems, and so on. In general, it is consistent with generally accepted views and with the data which were obtained by us earlier [V. Kalyagin, LN Matsko, 1986].

Comparison of motor abilities of a patients using high-speed recording of vertical lines and the letters „O” and „ZH” indicates significantly decreased speed of the implementation of more simple elements by patients with a higher degree of stuttering. In this case, marked differences are observed in writing with the right hand. Patients with medium and high form of stuttering write the complex of “ZH” equally slow.

CONCLUSION

Thus, patients with stuttering, characterized by the clinical criteria of severity of stuttering are also distinguished by a number of objective characteristics. In other words, between the clinical evaluation and objective characteristics of these there is a certain conformity. Increasing severity of stuttering resulted in increased time of reading a text and the number of stumbles, the level of anxiety and neuroticism; the speed of writing simple graphic signs and runtime proofreading sample slowed. These results suggest that the assessment of the severity of stuttering can be objectified by the quantitative measurement of a number of speech and non-speech characteristics of patients.

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ОЦЕНКА СТЕПЕНИ ТЯЖЕСТИ ЗАИКАНИЯ

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Федеральное государственное бюджетное учреждение «Санкт-Петербургский научно-исследовательский институт уха, горла, носа и речи» Министерства здравоохранения Российской Федерации

Аннотация: В работе обсуждаются критерии оценки тяжести заикания с точки зрения их значения для организации помощи заикающимся. Подчеркивается роль этих критериев не только для выбора методов коррекции, но и для оценки её эффективности и прогноза дальнейшего течения этого нарушения речи. Приводятся экспериментальные данные количественной оценки субъективных и объективных проявлений заикания.

Ключевые слова: заикание, судорога, объективные и субъективные оценки, прогноз.

