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Keywords

Speech, Language and Hearing Sciences
 Speech Disorders
 Evaluation
 Stuttering
 Behavior

Descritores

Fonoaudiologia
 Distúrbios da Fala
 Avaliação
 Gagueira
 Comportamento

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Received: 12/12/2013

Accepted: 09/03/2014

CoDAS 2015;27(1):44-50

Behavioral and social competency profiles of stutterers

Perfil comportamental e de competências sociais de indivíduos com gagueira

ABSTRACT

Purpose: To investigate the behavioral and social competency profiles of individuals who stutter and to compare them with persons who do not stutter, according to their parents; to correlate the behavioral and the social competence performances with the severity of stuttering. **Methods:** Sixty-four participants, aged 6 to 18 years, of both genders, were divided into two groups: the study group (SG), composed of 32 individuals with persistent developmental stuttering, and the control group (CG), composed of 32 fluent individuals. The procedures used were fluency assessment, stuttering severity instrument, and the Child Behavior Checklist inventory. **Results:** In the behavioral profile of the SG, the mean of the total score and that of the internalizing problems were classified as clinical. The comparison between the groups showed differences in the behavioral profile concerning the total score, and in the internalizing and externalizing problems; and in the social profile, concerning the total score and activity scale. There were no statistically significant differences in the scales among the mild, moderate, and severe stuttering. **Conclusion:** According to the information provided by parents, children who stutter showed peculiar behavior and social competence, with a higher tendency to manifest alterations in this area, in comparison to those who do not stutter. Fear, nervousness/tension, guilt, anxiety, perfectionism, and worry were the most frequent alterations in relation to the behavior, whereas damages in the social field and in the habitual communication situations characterized the social competence of persons who stutter.

RESUMO

Objetivo: Investigar o perfil comportamental e de competências sociais de indivíduos com gagueira e comparar com indivíduos sem gagueira, a partir da opinião de seus pais; correlacionar o desempenho comportamental e de competência social com o grau de severidade da gagueira. **Métodos:** Participaram 64 indivíduos, de 6 a 18 anos de idade, de ambos os gêneros, divididos em dois grupos: grupo experimental (GE), composto por 32 indivíduos com gagueira desenvolvimental persistente, e grupo controle (GC), composto por 32 indivíduos fluentes. Os procedimentos utilizados foram: avaliação da fluência, instrumento de severidade da gagueira e o inventário comportamental *Child Behavior Checklist* (CBCL). **Resultados:** No perfil comportamental do GE, a média do escore total e a média dos problemas internalizantes foram classificadas como clínica. A comparação intergrupos mostrou diferença no perfil comportamental, no que se refere ao escore total e aos problemas internalizantes e externalizantes; e no perfil social, no que tange ao escore total e à escala de atividades. Não houve diferenças estatísticas nas escalas entre a gagueira leve, moderada e severa. **Conclusão:** Na opinião dos pais, os filhos com gagueira apresentam comportamento e competência social peculiar, com maior tendência a manifestar alterações nessa área, em comparação com os filhos fluentes. Medo, nervosismo/tensão, culpa, ansiedade, perfeccionismo e preocupação foram as alterações mais frequentes relacionadas ao comportamento, enquanto prejuízos no domínio social e nas situações comunicacionais rotineiras caracterizaram a competência social dos indivíduos com gagueira.

Study carried out at the Laboratory of Speech-Language Pathology and Audiology Studies, Evaluation and Diagnosis and in the Laboratory of Fluency Studies, Speech-Language Pathology and Audiology Department, School of Philosophy and Sciences, Universidade Estadual Paulista “Júlio de Mesquita Filho” – UNESP – Marília (SP), Brazil. (1) Undergraduate Program in Speech-Language Pathology and Audiology, School of Philosophy and Sciences, Universidade Estadual Paulista “Júlio de Mesquita Filho” – UNESP – Marília (SP), Brazil. (2) Speech-Language Pathology and Audiology Department and Graduate Program in Speech-Language Pathology and Audiology, School of Philosophy and Sciences, Universidade Estadual Paulista “Júlio de Mesquita Filho” – UNESP – Marília (SP), Brazil.

Financial support: Fundação de Amparo à Pesquisa do Estado de São Paulo – FAPESP.

Conflict of interests: nothing to declare.

INTRODUCTION

Stuttering is a communication disorder with varied manifestations, mainly characterized by involuntary repetitions of syllables, prolongations, and blocks, as well as physiological, behavioral, and emotional reactions to the speech disruptions⁽¹⁾.

The main attitudes and feelings of people who stutter in relation to the disorder are denial, passivity, hopelessness, guilt, shyness, shame and fear related to speech, anxiety, in addition to frustration and anger⁽²⁾.

Emotional adverse reactions in routine communication situations⁽³⁾, such as physical, psychological, social, and vocational losses⁽⁴⁾, were reported by individuals who stutter. Parents of children who stutter reported that the children often exhibit behavioral changes in school and in relationships with parents and colleagues⁽⁵⁾.

Individuals who stutter are considered emotionally unstable^(6,7), nervous, clumsy, and unable to communicate effectively in daily life⁽⁷⁾. Other stereotypes were also described, such as insecure, reticent, reserved, showing escape behavior, hesitant, depressed, nervous, tense and fearful⁽⁸⁾, shy, quiet, and introverted^(7,8).

Some researchers investigated the personality and temperament of individuals who stutter⁽⁹⁾, but there is no consensus whether, in fact, stuttering causes significant impact on their personality⁽⁶⁾.

Social interactions are sometimes avoided and feared because of the anxiety experienced by individuals who stutter⁽¹⁰⁾ and are influenced by the negative responses of their communication pairs on their speech disfluency⁽¹¹⁾. Relationships with partners could be harmed because speech is often perceived as an obstacle to the development of social relations⁽¹²⁾.

The physical and emotional fatigue of constantly monitoring speech and efforts to control stuttering can contribute to the individual's perception of quality of life⁽³⁾. The negative impact of stuttering on quality of life was described by some researchers^(2,4,13).

However, there is no consensus in the literature on the relationship between stuttering severity and its impact on quality of life. Some authors believe that the higher the severity, the greater the impact on quality of life⁽¹⁴⁾, whereas others found contradictory data^(2,15,16).

Thus, the objectives of this study were to investigate the behavioral and social competency profiles of individuals who stutter and to compare them with persons who do not stutter, according to their parents; to correlate the behavioral performance and social competence and the severity of stuttering.

METHODS

This is an experimental, cross-sectional study with comparison between groups, consisting of 64 individuals, aged between 6 and 18 years old (mean=8.9 years; standard deviation – SD=2.4), the range comprised by the instrument. The study group (SG) comprised 32 individuals

(23 male and 9 female participants) diagnosed with persistent developmental stuttering. The control group (CG) comprised 32 fluent individuals, matched for gender and age. The SG was composed of individuals evaluated in the Laboratory of Speech-Language Pathology and Audiology Studies, Evaluation and Diagnosis and/or in the Laboratory of Fluency Studies of the Center for Education and Health of Universidade Estadual Paulista “Júlio de Mesquita Filho” Marília (SP); the CG was composed of students from municipal and state schools in the city where the survey was conducted.

This study was approved by the Ethics Committee of the School of Philosophy and Sciences of UNESP (CEP/FFC/UNESP), under the Protocol No. 0402/2011. All participants signed the free and informed consent before the study. All recommendations of Resolution No. 196/96 of the Brazilian Health Council were followed.

The inclusion criteria of both groups were the following: native speaker of Brazilian Portuguese and aged between 6 and 18 years old. Individuals who stutter (SG) should present:

1. diagnosis of persistent developmental stuttering by a Speech-Language Pathologist;
2. at least 3% stuttering-like disfluencies;
3. minimum of 12 months of disfluency; and
4. stuttering classification of, at least, mild according to the Stuttering Severity Instrument (SSI-3)⁽¹⁷⁾.

For the composition of the control group (CG), with fluent individuals, the inclusion criteria were the following:

1. Not present complaint of current or previous stuttering,
2. negative family history of stuttering, and
3. presenting less than 3% stuttering-like disfluencies on the specific evaluation.

Exclusion criteria for both groups were the following:

1. presenting any neurological disorder, genetic or not, such as dystonia, extrapyramidal disorders, mental disorders, epilepsy, or attention deficit hyperactivity disorder (ADHD);
2. psychiatric symptoms or conditions;
3. conductive or sensorineural hearing loss; and
4. other relevant conditions that could cause errors in the diagnosis.

Initially, the audiovisual record of a self-expressive speech sample by participants in the SG was performed, composed of 200 fluent syllables, with the aid of a Sony digital camcorder and a tripod. The transcription and analysis of the speech were carried out according to the Child Language Test – Fluency (ABFW)⁽¹⁸⁾, which considers the types of disfluencies, speech rate, and the frequency of disruptions. Subsequently, the SSI-3⁽¹⁷⁾ was used to classify the degree of stuttering severity as mild, moderate, severe, or very severe.

In the next phase, the behavioral and social competency profiles of individuals in the SG and CG were obtained

by applying the Child Behavior Checklist (CBCL) instrument, for parents, for the age group of 6 to 18 years⁽¹⁹⁾. This instrument was translated and adapted to Portuguese as *Lista de Verificação Comportamental para Crianças ou Adolescentes*⁽²⁰⁾.

To characterize the behavioral profile, parents responded to 118 items that listed a number of desirable and disruptive behaviors. For each question, parents rated the behavior of their children as false or absent, partially true, and very true. The 118 items form eight individual scales, which can be grouped into three scales:

1. internalizing problems (anxiety/depression, withdrawn, and somatic complaints);
2. externalizing problems (delinquent behavior and aggressive behavior); and
3. other problems (social problems, thought problems, and attention problems).

The total score of behavioral problems (behavioral profile) was obtained when the results of the three scales were added.

As for the characterization of the social profile, parents responded to 20 items, which formed three individual scales: activities, sociability, and education, whose sum represents the total for social competences. The items required that parents compared the child with others of the same age, identifying them as “Below Average”, “Above Average” or “In the Middle”.

According to the responses, the CBCL instrument, for the age group of 6/18 years, classifies each of the scales, individual and summed, into “clinical (or altered)”, “Borderline” or “Nonclinical” for both behaviors and social competencies, according to normative sample pairs⁽¹⁹⁾.

Data analysis

Data were compiled and tabulated. The statistical likelihood-ratio test was used to compare the behavior and social competencies between groups (SG and CG), according to the distribution among “Clinical”, “Borderline” and “Nonclinical”.

The Mann-Whitney test was used to compare scores of the CBCL in behavior and social competencies between groups (SG and CG). Finally, the Jonckheere-Terpstra test was used to check for possible differences in behavior and social competencies, according to different degrees of stuttering severity, compared concurrently. For all tests, the significance level adopted for statistical tests was 5% (0.05). Data were analyzed using the Statistical Package for Social Sciences (SPSS) software, version 20.0.

RESULTS

Regarding the behavioral profile of the SG, it was established that both the mean total score and the mean score of internalizing problems were classified as clinical. The total score of externalizing problems was classified as “Nonclinical”,

as well as all the means of the individual scales of the behavioral profile. The total score of the social profile was classified as “Clinical”, and all individual scales were classified as “Nonclinical” (Table 1).

The comparison between SG and CG for the “Clinical”, “Borderline”, and “Nonclinical” classifications showed that both groups had statistical differences in the behavioral profile, as the total score, the internalizing and externalizing problems, and three individual scales (anxiety/depression, withdrawn, and social problems). Regarding the social profile, the groups differed statistically, both in the total score and in the activity scale (Table 2).

The SG had a greater tendency of parents informing more cases of problems in the children’s behavior, as the maximum values were, in most scores, both total and individual scales, larger than the CG, and the minimum values of the SG were similar to or greater to the values of the CG. SD values suggested that the SG is more heterogeneous in terms of presence of changes in the children’s behavior, according to the information provided by the parents, than the CG. There was a statistical difference between the groups in the comparison of all the mean scores, both in total and in individual scales (Table 3).

With regard to social competency, the lowest values corresponded to the clinical classification (<37). It can be suggested that the SG showed a tendency of parents informing more problems in social competence when compared to the

Table 1. Characterization of behavioral and social profile from scores of the Child Behavior Checklist instrument in the study group

CBCL	SG (n=32)		
	Classification	Mean (SD)	Min–Max
Behavioral profile			
Total score	Clinical*	63.12 (6.49)	53–76
Score of internalizing problems	Clinical*	64.06 (7.23)	52–80
Anxiety/depression	Nonclinical**	66.13 (7.25)	50–78
Withdrawn	Nonclinical**	61.41 (9.34)	50–83
Somatic complaints	Nonclinical**	56.44 (5.95)	50–74
Score of externalizing problems	Nonclinical***	59.13 (8.17)	44–74
Delinquent behavior	Nonclinical**	56.28 (7.31)	50–72
Aggressive behavior	Nonclinical**	61.13 (7.29)	50–79
Social problems	Nonclinical**	64.97 (6.62)	56–86
Thought problems	Nonclinical**	58.16 (6.96)	50–73
Attention problems	Nonclinical**	59.91 (6.64)	51–79
Social profile			
Total score	Clinical****	31.34 (6.42)	18–43
Activities	Nonclinical*****	33.41 (6.35)	22–43
Sociability	Nonclinical*****	37.56 (7.68)	24–52
Education	Nonclinical*****	42.28 (7.10)	25–55

Caption: CBCL = Child Behavior Checklist; SG = study group; SD = standard deviation; Min = minimum; Max = maximum

Score 1: Total score - *Clinical (>63);

Score 2: Individual scales - ** nonclinical (<67); behavioral profile/total score of externalizing problems - ***nonclinical (<60);

Score 3: Social profile/total score - ****clinical (<37); individual scales - *****nonclinical (>33).

CG, considering that most maximum values were lower in the SG; and as to the minimum, half were lower. The DP values suggested that the SG was more homogeneous when compared to the CG (Table 4). There was a statistical difference for the total score and for individual scales.

The results for the comparison of the behavior and social competency, according to the information from the parents of the SG, regarding the stuttering severity, showed no statistical difference in the scales (individual and group) between the mild, moderate, and severe stuttering. However, a tendency

Table 2. Comparison of behavioral and social profile from the scores of the Child Behavior Checklist instrument of the study and control groups, according to the distribution between the categories of clinical, borderline, and nonclinical

CBCL	SG (n= 32)						CG (n=32)						p-value
	Clinical		Borderline		Nonclinical		Clinical		Borderline		Nonclinical		
	n	%	n	%	n	%	n	%	n	%	n	%	
Behavioral profile													
Total score	14	43.8	10	31.2	8	25	1	3.10	3	9.40	28	87.50	<0.001*
Score of internalizing problems	20	62.5	3	9.4	9	28.1	4	12.5	2	6.2	26	81.2	<0.001*
Anxiety/depression	9	28.1	7	21.9	16	50	2	6.2	1	3.1	29	90.6	0.002*
Withdrawn	4	12.5	6	18.8	22	68.8	1	3.1	1	3.1	30	93.8	0.037*
Somatic complaints	1	3.1	2	6.2	29	90.6	0	0	0	0	32	100	0.207
Score of externalizing problems	8	25	6	18.8	18	56.2	1	3.1	2	6.2	29	90.6	0.007*
Delinquent behavior	1	3.1	4	12.5	27	84.4	0	0	1	3.1	31	96.9	0.215
Agressive behavior	4	12.5	2	6.2	26	81.2	1	3.1	0	0	31	96.9	0.120
Social problems	3	9.4	11	34.4	18	56.2	1	3.1	0	0	31	96.9	<0.001*
Thought problems	2	6.2	5	15.6	25	78.1	1	3.1	1	3.1	30	93.8	0.178
Attention problems	1	3.1	3	9.4	28	87.5	1	3.1	1	3.1	30	93.8	0.586
Social profile													
Total score	26	81.2	1	3.1	5	15.6	12	37.5	3	9.4	17	53.1	0.002*
Activities	10	31.2	11	34.4	11	34.4	3	9.4	8	25	21	65.6	0.025*
Sociability	6	18.8	4	12.5	22	68.8	3	9.4	1	3.1	28	87.5	0.172
Education	2	6.2	2	6.2	28	87.5	1	3.1	1	3.1	30	93.8	0.692

*Statistically significant values (p<0.05) – Likelihood-ratio test

Caption: CBCL = Child Behavior Checklist; SG = study group; CG = control group

Table 3. Comparison of scores of the Child Behavior Checklist instrument on behavioral profile between the study group and the control group

CBCL: behavioral profile	SG (n=32)		CG (n=32)		p-value
	Mean (SD)	Min–Max	Mean (SD)	Min–Max	
Total score	63.13 (6.49)	53.00–76.00	49.06 (8.04)	37.00–76.00	<0.001*
Score of internalizing problems	64.06 (7.23)	52.00–80.00	51.81 (9.71)	34.00–76.00	<0.001*
Anxiety/depression	66.13 (7.25)	50.00–78.00	56.19 (7.68)	50.00–82.00	<0.001*
Withdrawn	61.41 (9.34)	50.00–83.00	54.75 (6.42)	50.00–76.00	0.003*
Somatic complaints	56.44 (5.95)	50.00–74.00	52.88 (4.74)	50.00–64.00	0.003*
Score of externalizing problems	59.13 (8.17)	44.00–74.00	48.72 (7.62)	34.00–72.00	<0.001*
Delinquent behavior	56.28 (7.31)	50.00–72.0	51.44 (3.19)	50.00–67.00	0.002*
Agressive behavior	61.13 (7.29)	50.00–79.00	53.44 (5.16)	50.00–73.00	<0.001*
Social problems	64.97 (6.62)	56.00–86.00	53.13 (5.00)	50.00–73.00	<0.001*
Thought problems	58.16 (6.96)	50.00–73.00	53.44 (5.79)	50.00–74.00	0.001*
Attention problems	59.91 (6.64)	51.00–79.00	54.22 (6.25)	50.00–75.00	<0.001*

*Statistically significant values (p<0.05) – Mann-Whitney’s test

Caption: CBCL = Child Behavior Checklist; SG = study group; CG = control group; SD = standard deviation; Min = minimum; Max = maximum

Table 4. Comparison of scores of the Child Behavior Checklist instrument on social profile between the study group and the control group

CBCL	SG (n=32)		CG (n=32)		p-value
	Mean (SD)	Min–Max	Mean (SD)	Min–Max	
Total score	31.34 (6.42)	18.00–43.00	40.09 (8.45)	25.00–62.00	<0.001*
Activities	33.41 (6.35)	22.00–43.00	39.81 (9.92)	26.00–64.00	0.009*
Sociability	37.56 (7.68)	24.00–52.00	43.69 (9.12)	24.00–59.00	0.006*
Education	42.28 (7.10)	25.00–55.00	46.31 (7.27)	24.00–55.00	<0.001*

*Statistically significant values (p<0.05) – Mann-Whitney’s test

Caption: CBCL = Child Behavior Checklist; SG = study group; CG = control group; SD = standard deviation; Min = minimum; Max = maximum

can be observed in individuals who stutter with a severe degree of impairment to have higher occurrence of scores classified as clinical in comparison with those with moderate and mild stuttering (Table 5).

DISCUSSION

Literature highlights the importance of studying the behavioral and social aspects of individuals who stutter^(1,4); however, few studies provide comparative results with individuals who do not stutter.

Analysis of the data obtained in this study showed that individuals who stutter, according to their parents, have peculiar characteristics in the behavioral and social profiles when compared to fluent individuals. These results support previous studies that reported behavioral⁽⁵⁾ and social changes^(1,3,4,7,8,21,22) in individuals who stutter.

In relation to behavior, the intragroup analysis of the SG suggested that the most relevant characteristics are related to anxiety/depression, withdrawn, and somatic complaints. The intergroup analysis (SG versus CG) showed that individuals who stutter, in the opinion of their parents, had a higher frequency of behavioral alterations such as fear, nervousness/stress, guilt, anxiety, perfectionism, and concern (anxiety/depression scale) compared to fluent individuals. These results are similar to those of published reports that found nervousness/stress^(7,8), depression⁽⁸⁾, fear^(2,8), guilt, and anxiety in individuals who stutter⁽²⁾.

The results of this study, concerning the withdrawn scale, showed that the behavior of children who stutter, as reported by their parents, was characterized as reserved, shy, closed, introverted, quiet, and depressed, in agreement with previous descriptions^(2,7,8,23).

Individuals who stutter seem to be afraid of listener's negative evaluations and possibly avoid speaking situations in an effort to be perceived in a more positive way, as described by some researchers^(7,24).

On the scale of somatic complaints, with regard to the presence of physical problems by "nervousness" and fatigue, results showed no statistical difference between patients with and without stuttering. This finding was different from the previous study, which reported that the constant monitoring of speech and efforts to control stuttering can cause physical and emotional fatigue⁽³⁾. However, it is worth mentioning that the average age of the population studied was 8.9 years. Thus, the results suggested that much of the child population may also not monitor their speech in an attempt to control stuttering, and consequently, parents do not perceive that fatigue.

With respect to externalizing problems in the SG, in the opinion of parents, aggressiveness was more common than the delinquent behavior. As for the other issues, it is noted that the social problems were more common than thought and attention problems. Therefore, the data suggested that aggression and social problems can be part of the spectrum of changes in individuals who stutter.

As for social competency, as reported by parents, the total score of the social profile of individuals who stutter in the sample was classified as clinical, showing that stuttering can cause impaired social interactions, corroborating previous studies^(12,21,22).

The comparison between groups (SG versus CG), all total scores (the behavioral profile, internalizing and externalizing problems, and the social profile) showed statistically significant differences. The results showed that, as a group, 90.6% participants from the SG presented behavior, in the opinion of parents, classified as clinical (altered) on some scale (individual or added), compared to 53.1% in the CG. These data, added to the

Table 5. Comparison of behavioral and social profile from the Child Behavior Checklist instrument in the study group according to the stuttering severity (n= 32)

CBCL	Mild			Moderate			Severe			p-value
	Clinical n (%)	Borderline n (%)	Nonclinical n (%)	Clinical n (%)	Borderline n (%)	Nonclinical n (%)	Clinical n (%)	Borderline n (%)	Nonclinical n (%)	
Behavioral profile										
Total score	7 (36.8)	4 (21.1)	8 (42.1)	5 (55.6)	4 (44.4)	0 (0)	2 (50)	2 (50)	0 (0)	0.108
Score of internalizing problems	10 (52.6)	3 (15.8)	6 (31.6)	6 (66.7)	0 (0)	3 (33.3)	4 (100)	0 (0)	0 (0)	0.335
Anxiety/depression	6 (31.6)	3 (15.8)	10 (52.6)	2 (22.2)	2 (22.2)	5 (55.6)	1 (25)	2 (50)	1 (25)	0.635
Withdrawn	1 (5.3)	3 (15.8)	15 (78.9)	1 (11.1)	3 (33.3)	5 (55.6)	2 (50)	0 (0)	2 (50)	0.096
Somatic complaints	0 (0)	1 (5.3)	18 (94.7)	0 (0)	1 (11.1)	8 (88.9)	1 (25)	0 (0)	3 (75)	0.101
Score of externalizing problems	3 (15.8)	4 (21.1)	12 (63.2)	3 (33.3)	2 (22.2)	4 (44.4)	2 (50)	0 (0)	2 (50)	0.530
Delinquent behavior	0 (0)	1 (5.3)	18 (94.7)	1 (11.1)	1 (11.1)	7 (77.8)	0 (0)	2 (50)	2 (50)	0.069
Aggressive behavior	1 (5.3)	2 (10.5)	16 (84.2)	1 (11.1)	0 (0)	8 (88.9)	2 (50)	0 (0)	2 (50)	0.124
Social problems	0 (0)	6 (31.6)	13 (68.4)	2 (22.2)	3 (33.3)	4 (44.4)	1 (25)	2 (50)	1 (25)	0.188
Thought problems	1 (5.3)	5 (26.3)	13 (68.4)	0 (0)	0 (0)	9 (100)	1 (25)	0 (0)	3 (75)	0.133
Attention problems	0 (0)	2 (10.5)	17 (89.5)	1 (11.1)	0 (0)	8 (88.9)	0 (0)	1 (25)	3 (75)	0.337
Social profile										
Total score	14 (73.7)	1 (5.3)	4 (21.1)	8 (88.9)	0 (0)	1 (11.1)	0 (0)	0 (0)	4 (100)	0.707
Activities	6 (31.6)	5 (26.3)	8 (42.1)	1 (11.1)	5 (55.6)	3 (33.3)	3 (75)	1 (25)	0 (0)	0.138
Sociability	4 (21.1)	2 (10.5)	13 (68.4)	0 (0)	1 (11.1)	8 (88.9)	2 (50)	1 (25)	1 (25)	0.196

*Statistically significant values (p<0.05) – Jonckheere-Terpstra test

Caption: CBCL = Child Behavior Checklist

maximum and minimum values, of the SG in comparison to the CG showed that individuals who stutter were more likely to present behavioral and social competency problems than those who do not stutter, according to the account of parents.

The relationship between stuttering and anxiety has been shown by some studies⁽²⁵⁻²⁷⁾. Specifically, through the CBCL, an investigation found decreased anxiety and depression after therapy reported by the parents of children who stutter⁽²⁵⁾. Thus, the authors suggested that these physiological symptoms may be effects of this disorder. It is noteworthy that high levels of anxiety in children and adolescents can negatively impact the social and emotional development, as well as academic performance⁽²⁸⁾. In addition, shyness and inhibition (considered in the CBCL as part of the withdrawn scale) are precursor characteristics of anxiety⁽²⁷⁾. In this sample, parents of individuals who stutter reported presence of anxiety in their children. As previously described⁽¹⁰⁾, it is believed that anxiety may cause fear of social interactions, which in turn leads to isolation with respect to social activities. In this logic, it is possible to understand the reasons for differences in internalizing problems among individuals with and without stuttering, mentioned by parents.

It is worth mentioning that the qualitative analysis of the opinions of parents, comparative between the groups (SG versus CG) regarding the behavior of children, showed that the SG was more heterogeneous. However, regarding social competencies, the SG was more homogeneous than the CG. One possible explanation for this finding is the amount of questions on behavior, when compared with questions on social competency.

The analysis of social competency, which includes the activity, sociability, and education (school performance) scales, showed differences between the SG and the CG only for activities. The total scores of these scales, in the opinion of parents, corresponded to a clinical classification of the SG. Features related to social competency in individuals who stutter were previously described as escape behavior or fear and avoidance of social interactions^(8,10,29), emotional and cognitive adverse reactions in routine communication situations⁽³⁾, impairment in the social field or difficulties in social interactions^(3,4,21), difficulty in developing relationships with partners⁽¹²⁾, and inability to communicate effectively in daily life⁽⁷⁾. It is noteworthy that, although the escape strategy apparently proves effective to reduce both stuttering and the negative emotional reaction, it does not provide communication or social development⁽²⁹⁾.

Regarding the stuttering severity, the results corroborate previous research that related that stuttering may influence social interactions^(4,11). It is noteworthy that, as reported by parents, the group of individuals with severe stuttering showed a tendency to present scores classified as Clinical compared with the cases of moderate and mild stuttering. Some behavioral characteristics were different in individuals who stutter compared to fluent individuals, and some of these differences may be associated with changes in the frequency of stuttering⁽³⁰⁾.

In summary, these findings contributed to classify the behavior and social competency of individuals who stutter, in the opinion of parents, using the CBCL inventory, and also to reinforce the importance of evaluation of the behavior of individuals with this disorder. The understanding of stuttering as

multidimensional allows the professional to a broader view and more context of how this communication disorder can impact the behavior and social aspects of individuals who stutter.

It is a fact that one of the limitations of this study would be to use an inventory that considers the views of parents, and not the comparison of this perception with the assessment of behavioral and social aspects of these individuals who stutter. Further investigation will confirm these findings and will point to a better understanding of the impact of stuttering on the behavior and life of individuals.

CONCLUSION

According to parents, individuals who stutter present peculiar behavior and social competency, and are more likely to manifest changes in these areas compared with fluent individuals. Fear, nervousness/stress, guilt, anxiety, perfectionism, and concern were the most frequent alterations related to behavior, whereas impairment in the social field and in routine communication situations characterized the social competency of individuals who stutter.

The characterization of behavior and social competency of individuals who stutter may help in understanding the multidimensionality of stuttering, as well as guide the diagnostic and therapeutic practice of this disorder.

ACKNOWLEDGMENTS

The authors acknowledge the financial support provided by Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) for this research (Protocol no. 2011/23186-7).

**MPG was responsible for the collection, tabulation, and analysis of data and drafting of the manuscript; CMCO was responsible for the sample selection and diagnosis of cases, supervision of the data collection, as well as collaboration on the study design and drafting of the manuscript; CMG was responsible for the project, study design, discussion of the findings and general orientation of the stages of implementation, and preparation of the manuscript.*

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