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Emotional uneasiness perceived by parents of children with specific language impairment

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Abstract. In children with specific language impairment (SLI) the emotional uneasiness is a correlated problem that is manifested when these subjects are in contact with their equals who have not this kind of language problem. This research analysis on emotional uneasiness was estimated by their parents' perception of them, using the *CBCL/4-18 Children Behavior Checklist/4*-18 scale of Achenbach. The study was carried out on Italian pre-school age and primary school children with SLI and we show the symptoms, intensity and frequency of emotional uneasiness in relation to children of the same age without language impairments. The results underline that emotional uneasiness is present in children with SLI and how their parents perceive it. There are some qualitative and quantitative differences between perception of symptoms in mothers and fathers, although both parents notice attention deficit problems in their SLI children.

Key-words. Specific language problems, CBCL, emotional evaluation, language evaluation.

Introduction. Children with specific language impairments (SLI) tend to manifest social limitations in the form of emotional and behavioural problems (Orton 1937; Ingramm 1959). A series of papers highlights the emotional behaviour problems of these children (Petrie 1975; Stevenson & Richman 1978; Paul et al. 1983; Cantwell & Baker 1985; Beitchman et al. 1986; Tallal et al. 1989; Beitchman et al. 1990; Benasich et al. 1993), while others describe the language limitations in children diagnosed with behavioural-emotional disorders (Gualtieri et al. 1983; Camarata et al. 1988; Love & Thompson 1988; Choen et al. 1998). All these investigations reveal

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the presence of both categories of disorders with percentages that in some investigations reach 50-70% of the cases studied. This work focuses on some specific points: evaluate the presence of emotional uneasiness in a group of Italian mother language children diagnosed with specific language impairment; determine if children with SLI have an increased psychiatric risk as suggested in numerous works (Hunt & Choen 1984; Beitchman et al. 1990; Levi et al. 1991; Rutter 1997; Leonard 1998); point out the type and entity of the symptoms perceived by the children's parents estimating the frequency of psychopathological symptoms in this sample; evaluate possible differences between the perception of mothers and fathers in respect to the behavioural and emotional problems of their child.

Specific language impairments (SLI). Specific language impairments (SLI) appears as a delay in the development of the language competencies in children with normal intellectual development (QIP > 70), in the absence of obvious neurological alterations, sensory damage, psychiatric and relevant sociological and/or economic problems. In spite of these difficulties, the hearing of children with SLI is in the norm. This type of pathology can affect various stages of language development and is different from language acquired pathologies. The definition "children with specific language impairment" identifies patients with language problems that cannot be ascribed to brain damage or genetic diseases. Recently, a number of investigations have revealed the presence of abnormalities in the cortical areas involved in the processes of language acquisition in some patients with SLI (Preis et al. 2000; Trauner et al. 1998; Guerriero et al. 2002; Fabbro 2004). In particular, attention has focused on the presence of various degrees of polymicrogyria that concern the perisilvian regions and the temporal-parietal areas of the left hemisphere. Children affected by SLI have speech and comprehension problems at many levels: phonetic, morphological, semantic-lexical and syntactic. Their language profile is deficient in particular linguistic areas and differs from case for case (Leonard et al. 1987; Leonard & Ihns 1988; Sabbadini 1988; Bishop 1999). Children with SLI do not form a homogeneous group, but can be divided into subtypes in relation to the deficiency concerning the various areas and the development of different linguistic competencies.

Given the ample heterogeneity of the groups labelled SLI and the lack of objective diagnostic criteria to define separate nosographic categories (Aram et al. 1993; Bishop 1995) the characterization of the clinical phenotypes is the central problem of SLI studies (Bishop 1995).

Different classifications of specific language impairments have been proposed to date. Some of these are based on statistical criteria (ICD-10), others on specific sets of tests (Aram & Nation 1975; Korkman & Hakkinen-Rihu 1994), while others allow to diagnose behaviour of the evolution-

ary dysphasia subtype on the ground of clinical data (Allen et al. 1988; Allen 1989). In the tenth version of the international classification system for psychic and behavioural problems and syndromes (ICD-10, 1992), specific language impairment are described in the "Specific developmental speech and language impairment" section (Section F80) and they are separated into "Specific speech articulation disorders" (F80.0), "Expressive language disorders" (F80.1), "Receptive language disorders" (F80.2) and "Epilepsy-acquired aphasia" or "Landau-Kleffner syndrome" (F80.3). The disorders described are those by which normal acquisition of language is altered from the first stages of development.

Specific impairments in speech and language acquisition can be linked to writing and reading difficulties, behavioural and emotional problems and difficulties in socializing. A non-verbal IQ 70 is generally considered a criterion of exclusion from all the sections of the ICD-10 that deal with specific language impairment.

Numerous factors seem to be frequently associated with SLI: sex (75% males and 25% females are affected), left-handedness or ambidexterity (20%), motor skill deficiency, oral muscle coordination deficiency, epilepsy or episodes of convulsive fever. Investigations always more frequently describe a high family incidence (Neils & Aram 1986; Samples & Lane 1985; Tallal et al. 1989). Half of the children with SLI have a relative with the same pathology or with learning problems (Fabbro 1999).

Children with SLI can also have non-language deficits (Bishop & Adams 1992; Johnston & Gillam 1992; Leonard et al. 1992). Numerous cases of difficulties in the perception and elaboration of sounds (Tallal & Piercy 1973a, 1973b) and a limit to the number of mental operations that can be performed contemporaneously (Wyke & Asso 1979; Kahmi et al. 1985; Kirchner & Klatsky 1985; Johnson & Smith 1989) have been described.

SLI and behavioural disorders. Among the aspects of inadequate language in children with SLI are pragmatic troubles, deficiencies in the mechanisms and mental representations that allow the ambiguities to be resolved and so interpret the language in the oral and non oral context. For example, these patients have a marked difficulty in the comprehension of metaphors or indirect linguistic actions whose understanding requires the development of inferences needed to contextualize the proposition. This behaviour tends to provoke problems of social insertion especially as one grows older and verbal communication becomes richer in paradoxical and metaphoric expressions. Gertner et al. (1994) note that as a consequence of this deficiency even at kindergarten children with SLI are less wanted as companions in game. Fujiki et al. (1996) claim that these children have less contact with their contemporaries and generally have less friends than other children. They again observe that children with language deficiencies at a pragmatic lev-

el are incapable of isolating the unclear and unknown parts of the language. They only partially understand the conversation and this uncertainty inhibits their active participation, and often they depend on the mediation of an adult, usually a parent, that lessens the frustration of the unsatisfactory communication. The situation of social inferiority induces the child to formulate increasingly fewer questions, progressively reducing the active share in the conversations, especially between peers.

Several investigations suggest a significant frequency of certain psychiatric problems among children with language deficiencies (Gualtieri et al. 1983; Baker & Cantwell 1987b). Leonard (1998) reports that in a high percentage of subjects affected by various language problems, deficits that concern both speech and comprehension, by the time they reach school age, psychiatric problems are noticeable that jeopardize their social insertion even in adulthood. Beitchman et al. (1990) point out the high probability that children with language deficits will develop psychiatric problems, and the percentage is higher in females than in males. The high frequency of psychiatric troubles associated with language impairment is also sustained by Hunt & Cohen (1984) and Rutter (1997). The psychopathologic troubles reported with greater frequency are behaviour and emotional problems (Levi et al. 1991). In their sample of subjects with verified clinical histories, Cantwell & Baker (1977) note the following psychiatric problems: attention deficit, conditions of isolation, opposition behavioural disturbances, problems in adaptation and various cases of anxiety-depressive symptoms. Gualtieri et al. (1983) observing children in care centres for psychiatric illnesses, underline various schizoid disorders in the form of attention deficiency linked with hyperactivity, noted also by Canwell & Baker (1985). In a randomized sample of three-year-old children, Stevenson & Richman (1978) found behavioural problems in 59.1% of the subjects with SLI, compared to 13% in the control group (children of the same age group with normal language development). According to this research, the relative risk of psychiatric pathology in children with language deficits is approximately around 4.5%.

Also a study by Beitchman et al. (1990) carried out using the *Child Behaviour Checklist CBCL/4-18* (Achenbach & Edelbrock, 1983), led to the conclusion that SLI increases the possibility of psychiatric disorders. According to parents, 34% of boys and 37.5% of girls have attention deficit disorders and also teachers claim that the risk of psychiatric problems is higher in children with SLI than in the peer group, though they fail to observe significant differences between males and females.

Self-esteem, emotional behaviour, social skills and SLI. Self-esteem is considered important as a mediator in helping the subject to adapt to the requirements of the environment, to develop social skills and stimulate self-regulatory processes (Higgins

1991). A high degree of self-esteem is associated with high social and scholastic objectives, while a low evaluations appear to be linked to problems in the social and personal sphere, such as scholastic failure, depression, anxiety, violence, substance abuse, chronic dependence on assistance (California Task Force 1990; Robinson et al. 1991).

Some investigations have shown that children with SLI are vulnerable to low self-esteem due to the fact that their language disorder jeopardizes their scholastic performance and social interactions (Piers & Harris 1984). Recent research has revealed that self-esteem is influenced by age: for young children with SLI the data indicate a high degree of self-esteem, due to the scarce importance given to other people's opinion, while older children want to be accepted by others; a negative self-opinion is not however global but referable to certain domains, scholastic ability in first place (Jerome et al. 2002).

Materials and methods

Subjects. The study comprises a sample of 40 children (8 females and 32 males) divided into 2 independent groups comparable for age and sex: the experimental group was composed of 20 children with SLI and a control group of 20 children with normal language development. The percentage of male children is significantly higher than girls, 80% and 20%, respectively. This reflects the fact that males are more prone to have specific language impairment.

Subjects with SLI were contacted in the associations "La nostra Famiglia" and "IRCCS" in Medea, in the region Friuli Venezia-Giulia, and were included in the sample after having been submitted to specific examinations and tests to ascertain the presence of SLI, type of language disorder and its degree of severity. The control group children were recruited with the cascade method, and selected on basis of sex, age and an IQ matching the experimental group. Age and IQ between the two groups were not significantly different, according to T-test for independent groups (Table 1).

The average age of the experimental group was 73.6 ± 21.4 months,

Table 1. Means and standard deviations of age and intellectual quotients in experimental and control groups.

	EXPERIMENTAL GROUP Means and s.d.	CONTROL GROUP Means and s.d.	T-TEST
Age	73,60 ± 21,4	74,30 ± 24	ns*
QI	100,36 ± 10,81	126,75 ± 14,31	ns*
QIV	93,75 ± 9,15	124,20 ± 13,26	$p < 0,01$
QIP	103,68 ± 17,54	123,45 ± 14,45	ns*

* ns: not statistically significant.

that of the control group 74.3 ± 24 months. The children of the experimental group differed from those of the control in their performance in 3 of the 4 language tests from *The examination of language in the child from 4 to 12 years of age* (Fabbro 1999), analysed and compared through the Mann-Whitney test. It was believed opportune to continue with this procedure in order to refine data analysis and achieve more detailed results (Table 2).

In 20 children of the experimental group (Table 3), according to the ICD-10 classification (1992) one boy resulted affected by Specific Speech Articulation Disorder (F80.0); 10 males and 3 females are included in the category of Expressive Language Disorder (F80.1); 5 males and 1 female showed a Language Comprehension Disorder (F80.2). The percentage of SLI in the experimental group is summarised in Figure 1.

Investigation tools. All the children were submitted to two different evaluations, a cognitive and a language one. The data were collected by performing standardized test. These were carried out at the Association "La Nostra Famiglia" to ensure as far as possible homogeneous conditions. To eliminate the possibility that tiredness could influence the results, the children did the tests in two sessions, one for the cognitive evaluation and the other for the examination of language.

The cognitive evaluation was carried out using the Wechsler scale. The Wechsler Primary Preschool Scale of Intelligence (WPPSI) was adopted for children of a pre-school age (4 and 5 years old) (Orsini & Piccone, 1996). For children from six years on, the WISC-r, i.e. the Revised Wechsler Intelligence Scale for Children (Rubini & Padovani 1986) was used. Both are divided into two

Table 2. Means an standard deviations (s.d.) between the two groups of children for grammar comprehension (TCGB), sentence repetition, word repetition and repetition of non words test (Fabbro 1999).

LANGUAGE TEST	EXPERIMENTAL GROUP Means and s.d	CONTROL GROUP Means and s.d.	MANN-WHITNEY TEST
TCGB**	13,67 ± 8,5	4 ± 3,8	U=45 p=0,000
SENTENCES REPETITION•	9,6 ± 5,33	14,5 ± 2,07	U=20 p=0,0002
WORDS REPETITION•	14,28 ± 0,99	14,4 ± 1,39	ns*
REPETITION OF NON WORDS•	10,85 ± 3,43	14,35 ± 1	U=92,5 p=0,0035

* ns: not statistically significant;
** : points indicate the numbers of errors;
• : total score of correct answers.

Table 3. Composition of the experimental group and diagnosis.

	Name	Sex	Age-months	Age-years	Diagnosis	ICD-10
1	FF	M	46	3,10	Espressive Language Disorder	F80.1
2	AF	M	49	4,1	Espressive Language Disorder	F80.1
3	GF	M	52	4,4	Espressive Language Disorder	F80.1
4	PN	M	53	4,6	Espressive Language Disorder	F80.1
5	DM	F	55	4,8	Espressive Language Disorder	F80.1
6	DA	M	57	4,10	Espressive Language Disorder	F80.1
7	FB	M	60	5	Espressive Language Disorder	F80.1
8	BF	M	60	5	Specific Speech Articulation Disorder	F80.0
9	FS	M	61	5,1	Espressive Language Disorder	F80.1
10	FB	M	68	5,8	Espressive Language Disorder	F80.1
11	MM	M	74	6,4	Receptive Language Disorder	F80.2
12	BA	M	75	6,5	Receptive Language Disorder	F80.2
13	VG	F	76	6,6	Espressive Language Disorder	F80.1
14	PM	M	76	6,6	Espressive Language Disorder	F80.1
15	GC	F	88	7,4	Espressive Language Disorder	F80.1
16	GF	M	92	7,8	Receptive Language Disorder	F80.2
17	MM	M	102	8,6	Receptive Language Disorder	F80.2
18	GA	M	104	8,8	Receptive Language Disorder	F80.2
19	BM	M	108	9	Espressive Language Disorder	F80.1
20	MM	F	116	9,8	Receptive Language Disorder	F80.2

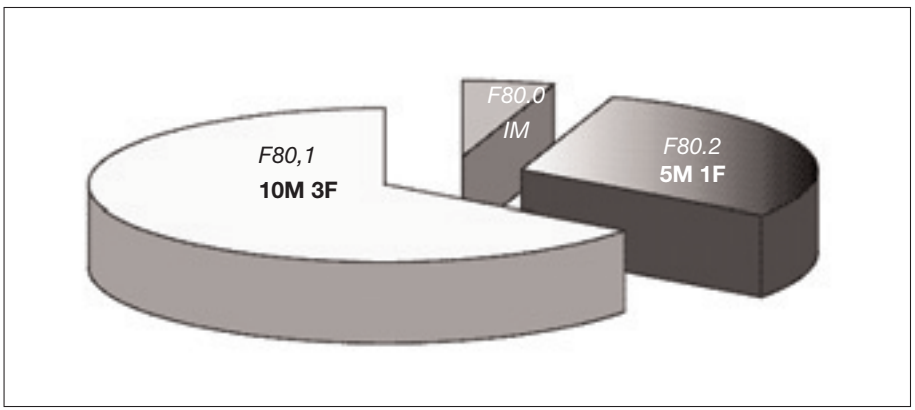

Figure 1. Distribution of SLI (ICD-10 1992) among children of the experimental group.

parts, an oral and a performance scale.

The evaluation of language was carried out by the administration of two series of separate tests in relation to age. A test for language evaluation (TVL, Cianchetti & Fancello 1997), consisting of repetition of sentences,

comprehension of words and comprehension of sentences, was used for children of a pre-school age. School-age children instead did four tests for *The examination of language in children from 4 to 12 years of age* (Fabbro 1999): Grammatical Comprehension for Children (TCGB, Chilosi & Cipriani 1995) and repetition of words, repetition of non-words (Agostini et al. 1998) and repetition of sentences. The latter consists of two versions, one for children from 3 to 6 years old (Vender et al. 1981) and one for children from 7 to 11 years of age (Ferrari et al. 1981).

As a tool for evaluating the emotional symptoms, the *Child Behaviour Checklist/4-18 (CBCL/4-18)* by Thomas Achenbach (1991, 2001) was adopted: it was compiled by both parents, considered one of the main sources of information on the children. The parents filled it the forms while the children were busy doing the cognitive and language tests.

The CBCL/4-18 helps identify and analyse the pattern of the problems (or syndromes: withdrawal, somatic complaints, anxiety-depression, social problems, thought and attention disorders, delinquency, aggressive behaviour and other problems) that are usually associated with them. The emotional-behavioural problems were identified on the ground of statistic procedures, such as factorial and cluster analyses and syndrome scales. One of the principal advantages of an empirical-quantitative evaluation is the possibility to not only appraise the presence of emotional-behavioural problems, but also their degree of severity. In the questionnaire on the child's behaviour or CBCL/4-18 (Achenbach 1991; Frigerio et al. 2001) the abilities of the children are investigated by a series of questions that make up the scales of "activity", "sociability" and "school", and the emotional-behavioural problems are analysed on several, hierarchical levels: syndrome, level of symptoms, degree of Internalization and Externalization and finally the total scale of the problems.The scales of behavioural problems consist of 118 descriptions of disorders. Each of these have to be judged by the parents if they are true (2 points), some time true (1 points), not true (0 points) for their child. The descriptions furnish a profile consisting of 8 psychiatric syndromes: withdrawal, somatic complaints, anxiety and depression that constitute the factor called "I" (Internalizing); delinquent and aggressive behaviour that make up factor "E" (Externalizing); social problems, problems of thought and of attention not included either in "I" or in "E". Finally there is the category "other problems" that more generally covers other problems that are not included among any of the other syndromes.

Results and discussion. The analysed data concern 17 of the 20 children of the experimental group and as many of the control group as they had the CBCL/4-18 evaluation of both parents. Two variance analyses were carried out on the data acquired. From preliminary two way analysis of variance with *Group* as Be-

tween factor and *Parents* as Within factor of the total points expressed in standardized T points obtained from the CBCL/4-18 there resulted a tendency to significance only in difference between the two groups [Control = 45.50 T points; dysphasic = 50.94 T points; F (1.16) = 3.628; p = 0.07]. No difference between mothers' and fathers' views was found, and the interaction between the two factors is not significant. Therefore the experimental group of children with SLI on the CBCL/4-18 gets slightly higher marks than those of the control.

A second variance analysis (|*within*| x |*between*|) 2 x 2 x 2 (Group x Parents x Levels of Internalization and Externalization) has been carried out on the partial marks of Internalization and Externalizing always expressed in standardized T points. Such statistic analysis has revealed two principal significant effects, that of the Group factor [F (1,16) = 7.44; p = .001] and that of the Parents factor [F (1,16) = 5.775; p = .02]. The children of the experimental group obtain higher points for emotional disturbances than the children of the control group and the mothers seem to give higher points than the fathers. In contrast there is no significant difference between the two groups regarding the levels of Externalization and Internalization, neither were the results significant between the three principal factors.

Some comparisons were made between the two groups of children of the sample on the unprocessed points of the eight single levels belonging to the CBCL/4-18 questionnaire compiled by the mothers and the fathers using the Mann-Whitney test, in this case to make the analysis more detailed.

In the evaluations of the mothers (Table 4) a significant difference between the two groups of children is obtained at the level of attention disorders (U = 102.5; p = 0.007) and of social problems (U = 127.5; p = 0.04). In both scales the children of the experimental group get higher points than those of the control. Besides the mothers of the children with SLI show more attention than those of the children of the control toward somatic complaints (U = 144.0; p = 0.07).

In regard to the judgments of the fathers (Table 5), they noted significant differences between the two groups of children in the scale of aggressive behaviour (U = 90.0; p = 0.05), attention deficit disorders (U = 83.5; p = .033) and withdrawal (U = 89.0; p = 0.04) overvaluing the experimental group. Besides the fathers note significant tendencies in regard to somatic complaints (U = 102.5; p = 0.06) and social problems (U = 94.5; p = 0.07). In regard to the results of the children in comparison with the single symptomatic scales that make up to Internalization and Externalizing, some data emerge. According to the answers of the mothers, a child from the control group (MA) and one from the experimental one (MM), they are on the borderline of the category of social problems, four children of the experimental group, two males (BA, GF) and two females (GC; MM) have been given points in the scale of attention deficit disorders

Table 4. Diagnostic subscales of the CBCL/4-18. Results of mothers' evaluation.

				CBCL /4-18 Mothers' evaluation								
				Internalizing					Externalizing			
	ICD-10	Name	Sex	Withdrawal	Somatic Complaint.	Anxiety Depres.	Social Prob.	Thought Prob.	Attention Prob	Delinquent Behaviour	Agressive Behaviour	Other Prob.
1	F80.1	FF	M	1	1	2	1	0	4	0	7	9
2	F80.1	AF	M	1	0	2	4	1	8	1	11	4
3*	F80.1	GF	M	0	0	0	1	0	1	0	1	2
4	F80.1	PN	M	0	0	0	0	0	3	0	8	0
5	F80.1	DM	F	4	0	6	4	0	4	1	7	1
6*	F80.1	DA	M	1	1	0	1	0	5	0	8	9
7	F80.1	FA	M	1	1	0	1	0	2	0	0	3
8	F80.0	VF	M	0	1	1	1	0	2	0	7	3
9	F80.1	FS	M	0	0	3	2	0	4	0	4	1
10	F80.1	FB	M	0	0	1	0	0	3	1	13	2
11	F80.2	MM	M	2	1	3	6	0	1	4	7	11
12	F80.2	BA	M	1	2	1	4	0	9	1	8	4
13	F80.1	VG	F	4	4	6	4	1	3	1	7	4
14	F80.1	PM	M	3	2	5	4	0	13	0	2	12
15	F80.1	GC	F	2	3	6	1	0	9	2	7	3
16	F80.2	GF	M	3	1	6	3	2	9	3	9	4
17	F80.2	MM	M	2	0	6	2	2	5	1	4	4
18*	F80.2	GA	M	0	0	2	3	0	4	1	9	0
19	F80.1	BM	M	2	0	1	1	0	0	1	3	2
20	F80.2	MM	F	3	0	7	5	2	8	1	11	11
21	c	DF	M	0	0	0	0	0	0	1	0	2
22	c	GB	M	0	0	0	1	0	2	1	5	6
23*	c	TF	M	0	0	1	1	0	2	0	7	4
24	c	MA	M	3	3	7	6	0	6	2	11	15
25	c	GV	F	3	4	4	0	0	5	3	8	5
26*	c	MA	M	0	0	1	2	0	4	1	9	10
27	c	MM	M	1	0	1	0	1	1	0	2	5
28	c	AB	M	2	0	0	0	0	0	1	3	1
29	c	FD	M	0	0	1	1	0	3	2	4	5
30	c	PC	M	1	0	5	3	0	6	2	10	15
31	c	LL	M	0	0	6	2	0	2	0	9	5
32	c	IL	M	0	0	3	0	1	1	0	3	3
33	c	GB	F	0	1	1	3	0	1	1	2	1
34	c	EL	M	0	0	2	3	0	5	0	6	5
35	c	AF	F	0	0	0	0	0	1	0	7	4
36	c	MF	M	1	0	0	3	0	2	0	4	4
37	c	NM	M	3	0	6	1	0	0	0	1	5
38*	c	SG	M	1	0	8	1	0	0	1	1	2
39	c	SF	M	0	0	0	1	0	1	0	2	4
40	c	AB	F	3	1	6	0	0	2	1	2	1

* Results not considered in the analysis of the data because the CBCL/4-18 of the father was missing;
c Control group.

Table 5. Diagnostic subscale of CBCL/4-18. Results of fathers' evaluations.

				CBCL /4-18 Fathers' evaluation								
				Internalizing					Externalizing			
	ICD-10	Name	Sex	Withdrawal	Somatic Complaint.	Anxiety Depres.	Social Prob.	Thought Prob.	Attention Prob	Delinquent Behaviour	Agressive Behaviour	Other Prob.
1	F80.1	FF	M	1	0	2	1	0	5	1	11	11
2	F80.1	AF	M	1	0	4	5	10	0	2	14	5
3*	F80.1	GF	M									
4	F80.1	PN	M	1	0	0	2	0	3	2	11	4
5	F80.1	DM	F	2	0	1	4	0	3	2	4	0
6*	F80.1	DA	M									
7	F80.1	FA	M	1	1	0	1	0	4	1	2	4
8	F80.0	VF	M	0	1	3	2	1	3	1	7	6
9	F80.1	FS	M	2	0	2	3	0	7	1	6	3
10	F80.1	FB	M	0	0	0	0	0	1	1	4	0
11	F80.2	MM	M	2	1	1	2	0	0	1	4	4
12	F80.2	BA	M	2	2	3	2	1	12	1	9	8
13	F80.1	VG	F	0	4	9	3	0	4	2	6	8
14	F80.1	PM	M	6	0	7	3	0	11	0	7	14
15	F80.1	GC	F	1	3	1	2	0	5	0	2	2
16	F80.2	GF	M	1	0	5	4	1	6	1	7	8
17	F80.2	MM	M	0	0	2	0	0	2	0	2	1
18*	F80.2	GA	M									
19	F80.1	BM	M	3	0	3	0	0	1	1	6	2
20	F80.2	MM	F	3	1	14	3	4	9	2	11	14
21	c	DF	M	0	0	0	0	0	0	0	0	0
22	c	GB	M	0	0	3	0	0	3	1	12	12
23*	c	TF	M	1	3	2	2	0	5	1	12	8
24	c	MA	M	2	0	2	3	0	1	1	0	5
25	c	GV	F	2	0	5	3	0	3	1	11	7
26*	c	MA	M	1	0	0	0	1	2	0	4	1
27	c	MM	M	0	0	0	0	0	3	0	4	6
28	c	AB	M	0	0	0	0	1	1	0	5	1
29	c	FD	M	0	0	1	2	0	2	2	4	4
30	c	PC	M	1	0	5	3	0	6	3	10	15
31	c	LL	M	0	0	2	1	0	2	0	6	4
32	c	IL	M	2	0	5	2	0	2	2	3	5
33	c	GB	F	0	1	1	2	0	2	1	3	3
34	c	EL	M	0	0	1	3	0	4	2	8	5
35	c	AF	F	0	0	0	0	0	0	0	1	0
36	c	MF	M	1	0	0	1	0	2	0	0	4
37	c	NM	M	2	0	4	1	0	0	0	2	0
38*	c	SG	M	0	2	5	1	0	2	0	1	5
39	c	SF	M	0	0	2	2	0	3	1	2	6
40	c	AB	F	1	0	3	0	0	1	0	0	1

* Results not considered in the analysis of the data because the CBCL/4-18 of the father was missing;
c Control group.

that places them on the borderline. Only one child (PM) of the same group has been placed in a pathological position for attention deficit disorders. Finally a child (MM) of the experimental group was placed on the borderline of the scale of delinquent behaviour. In the evaluations of the fathers one boy (AF) and one girl (MM) of the experimental group have accumulated points in the scale of problems of thought, that indicate them as pathological. In the scale of attention deficit disorders, two boys (BA, PM) and a girl (MM) belonging to the experimental group are placed in the pathological band.

In the control group no parent identified psychopathologic problems in the children with the exception of one boy (MA), who was on the borderline band for social problems according to the mother.

The data gathered show that according to the mothers 5% of the children of the experimental group showed social type problems, placing them in the borderline, while 20 % of the children have attention deficit disorders.

Only 5% of the SLI children in the scale of attention deficit disorders show attention problems at a pathological level, that places them in the clinical band. Besides it underlined that for the mothers, three children out of six with Receptive Language Disorder (F80.2) and two out of thirteen with Expressive Language disorder (F80.1) got high points the subscale of the attention deficit disorders.

It could be hypothesized that there is a greater tendency to the association between comprehension problems (F80.2) and problems linked to attention.

The answers of the fathers indicated pathological problems in 17% of the children in two symptomatic scales, that referring to the problems of thought (6%) and in the case of attention (1%).

Among the children with specific language impairments, both parents describe attention deficit and social skill disorders. In the control group only one child (MA), according to the mother, has social skill problems. This would confirm two hypotheses: that as a result of social consequences and that of the association between SLI and attention deficit.

In fact the parents of the children with dysphasia perceive in their children some social and relationship problems, symptoms that do not belong either to the level of Internalizing or to that of Externalizing and that are mainly expressed in the social problem scale.

From the results of the analysis of the answers of the parents it appears that some problems highlighted in the scale of social problems, in particular in the section "strongly attached to adults", "prefers the company of younger children" and "often teased by others" in accordance with the results of the searches carried out by Gertner et al. (1994), Fujiki et al. (1996) and Leonard (1998).

This investigations retain that the "social consequences" of developmental language disorders result in the children with SLI having less friends; they have a low frequency of

contact with them and are less desired as playmates as they do not communicate as well as other children of their age.

In regard to the relationship between SLI and attention, the data collected seem to confirm the association between SLI and attention deficit disorders . That is reported by both mothers and fathers: in particular the children tend to be little concentrated, impulsive and disorganized.

From our data it seems that the SLI is not greatly correlated to one of the two dimensions in the CBCL/4-18, Internalization and Externalization, since there is not a significant difference between the points obtained in the two scales in either of the two groups of children examined.

However from the analysis of the single syndrome scales that constitute the levels of Externalization and Internalization, there emerges a tendency toward Internalization in the group of children with SLI in comparison with the control group (Table 6).

According to the judgement of both parents the children of the experimental group are more prone to somatic complaints (such as head ache, tiredness and stomach aches) and a greater tendency to the withdraw (they refuse to speak, withdraw into themselves, prefer to be by themselves) in comparison to the control children, typical symptoms of the level of the Internalization. In Externalization scales only the aggressive behaviour scale (boasting, demanding a lot of attention, being disobedient at home and at school, being stubborn and particularly noisy) and, only for the fathers, would distinguish the children of the two groups, with a greater incidence in the children with SLI. So the data agree with the hypothesis formulated in various studies (King et al. 1982, Records et al. 1992, Levi et al. 1991, Redmond & Rice 1998, Leonard 1998) that the children with SLI have a greater number of behavioural problems, such as avoiding contact, isolation, anxiety and depressive disorders, in comparison to those of the Externalization. develop a number more frequent than behaviours of avoidment, isolation and disturb anxious-depressive in comparison with that characteristic of the Externalizing. From the results it seems that the mothers and the fathers are not always in agreement about the symptoms of their children. In our investigation it has been shown that the mothers of the children with SLI seem to overestimate the psychological difficulty of the children. This happens however for some symptoms. In fact the fathers of the children with SLI individualize two behavioural specific patterns: the tendency to the withdrawal (they refuse to speak, are closed up in themselves, they prefer to be alone) and the aggressive behaviour, while the mothers seem to perceive only problems linked to the dimension of the Internalization. However an agreement between mothers and fathers of the experimental group emerges in respect to problems of attention and social problems which are equally important.

Table 6. Problem scale of CBCL/4-18. Mothers' and of fathers' results.

					Problem scale				
					Mothers			Fathers	
	ICD-10	Name	Sex	Tot .	Internalizing	Externalizing	Tot.	Internalizing	Externalizing
1	F80.1	FF	M	56	46	54	52	49	47
2	F80.1	AF	M	60	51	59	55	46	54
3*	F80.1	GF	M	36	34	35			
4	F80.1	PN	M	42	34	49	51	40	55
5	F80.1	DM	F	46	46	48	54	58	52
6*	F80.1	DA	M	52	46	49			
7	F80.1	FA	M	45	43	43	38	43	30
8	F80.0	VF	M	52	49	52	45	43	47
9	F80.1	FS	M	50	49	46	45	46	43
10	F80.1	FB	M	47	40	56	37	34	44
11	F80.2	MM	M	45	49	44	56	53	53
12	F80.2	BA	M	58	55	52	55	49	50
13	F80.1	VG	F	58	62	52	57	63	52
14	F80.1	PM	M	47	64	47	51	60	38
15	F80.1	GC	F	46	51	40	58	58	53
16	F80.2	GF	M	60	60	54	56	53	49
17	F80.2	MM	M	38	43	38	53	57	44
18*	F80.2	GA	M	48	43	52			
19	F80.1	BM	M	45	53	47	41	46	43
20	F80.2	MM	F	68	67	58	65	58	57
21	c	DF	M	34	34	38	26	34	30
22	c	GB	M	45	34	46	55	46	55
23*	c	TF	M	45	40	47	56	53	55
24	c	MA	M	67	64	55	45	49	35
25	c	GV	F	56	59	56	58	54	57
26*	c	MA	M	53	40	52	39	40	43
27	c	MM	M	42	43	38	45	34	43
28	c	AB	M	38	43	43	38	34	44
29	c	FD	M	46	40	46	43	40	41
30	c	PC	M	61	53	54	62	53	55
31	c	LL	M	51	53	50	45	43	46
32	c	IL	M	42	46	41	49	55	44
33	c	GB	F	42	43	42	45	43	44
34	c	EL	M	49	43	46	51	40	52
35	c	AF	F	44	33	50	26	33	32
36	c	MF	M	45	40	43	39	40	30
37	c	NM	M	48	61	35	40	53	38
38*	c	SG	M	45	59	38	45	55	35
39	c	SF	M	46	43	41	39	34	38
40	c	AB	F	47	58	46	38	48	32

* Results not considered in the analysis of the data because the CBCL/4-18 of the father was missing.
c Control group.

Conclusions. The data in this study, which is the first ever on Italian mother tongue with SLI, is in agreement with observations made in other countries. The analysis carried out on a sample of Italian children suggests once again that emotional disorders are present in these subjects and are perceived by the parents in a significant way in comparison to parents of the children of the control group. With an estimation calculated in hundredths according to the mothers, 35% of the children with SLI and 5% of control group children, have psychiatric symptoms. According to the fathers, 29% of the children with SLI and 0% of control group have behaviour that could point out the presence of symptoms linked to the emotional disorders.

In respect to the questions put forward initially, the answers resulting from this investigation are positive. In the sample observed, the subjects with SLI have far more emotional disorders than their peers in the control group; they have higher levels of psychopathological symptoms and emotional disorders even at a tender age.

In addition, as already described in several international research papers, also in the Italian examined the problems of attention appear in correlation with the Specific Language

Impairment. Finally it was found that the emotional uneasiness, felt by the children with SLI, is noticed in a different way by mothers in comparison to fathers, both in regard to the kind, the entity and the frequency.

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