

Chapter 6

Language, Socio–Emotional Skills, and School Performance of Children and Adolescents With Developmental Language Disorder According to Parents' Perceptions

Asimina M. Ralli

National and Kapodistrian University of Athens, Greece

Maria Alexandri

National and Kapodistrian University of Athens, Greece

Maria Sofologi

 <https://orcid.org/0000-0003-0380-2220>

University of Ioannina, Greece

ABSTRACT

The study investigates parents' perceptions of children and adolescents with DLD regarding their understanding of DLD, the developmental language history, their language, socio-emotional, and school performance profile, as well as to what extent oral language skills are associated with their school performance. One hundred parents of children with DLD completed a questionnaire. Most of the parents stated that their child started to communicate efficiently with others after four years of age. They defined DLD as articulation problems and language delay and they reported difficulties apart from articulation with expressive vocabulary, phonological awareness, syntax, etc. Most of the parents rated their child as extroverted with average self-esteem and good social relationships. They reported difficulties in oral lessons, spelling, writing, and reading. Significant relationships were found among oral language skills, narrative, writing, reading, and spelling. The results are discussed in terms of how parents understand DLD and their child's developmental profile.

DOI: 10.4018/979-8-3693-1982-6.ch006

INTRODUCTION

Developmental Language Disorder (DLD), previously known as Specific Language Impairment (SLI) is a common developmental disorder with unknown etiology characterized by a slow pace and deficits in language development (Bishop, 2015). Children with DLD present language problems that cannot be explained in terms of other cognitive, neurological, or perceptual deficits (Bishop et al., 2017; Bishop & Hayiou Thomas, 2008; Pennington & Bishop, 2009), while there is a discrepancy between their low oral language skills and a good index of non-verbal intelligence (Zarzo-Benlloch et al., 2017). Initially, it has been considered a childhood disorder, but research shows that it continues to affect individuals in adolescence and adulthood (Palikara et al., 2009).

From childhood and throughout adolescence parents play a key role in supporting their children's development. Parental awareness of their children's needs has been highlighted in previous studies (Adolf et al., 2017) in which it has also been found that the parents were frequently unaware of their children's difficulties. In parallel, according to Bishop et al., (2016), parents (when they are aware of their children's needs) are one of the main referral sources for identifying children with DLD before they start school (Bishop et al., 2016; Christopoulos et al., 2020). A better understanding of parents' perceptions of their children with DLD could provide information that needs to be considered in the design of intervention programs for both parents and children in order to respond efficiently to their needs (Marshall, Harding, & Roulstone, 2017).

The last two decades, only a few studies have focused on investigating parents' perceptions of their children with DLD in different domains such as language, social and emotional skills, and school performance (Hobson et al. 2022; Lindsay et al., 2016; de Lopez et al., 2021; Pratt et al., 2006). Parents of children with DLD encounter a lack of familiarity with the terminologies used to characterize DLD and the possibility that the children's deficits may not be apparent (Forrest et al. 2018). Last, little is known about how parents understand the term DLD (Lopez et al. 2021), while their perspectives on the developmental language profile of those children is underinvestigated.

Therefore, the aim of the present study was to explore parents' perceptions regarding their understanding of DLD, the developmental language history, the oral language skills, and socioemotional profile as well as the school performance of their children with DLD in order to gain a holistic insight into the developmental profile of that group of children through the parents' lenses. Also, another aim of the study was to explore to what extent children's oral language skills are related to their school performance.

THE ORAL LANGUAGE PROFILE OF CHILDREN AND ADOLESCENTS WITH DEVELOPMENTAL LANGUAGE DISORDER ACCORDING TO THEIR PARENTS

In a significant epidemiological study, Tomblin et al., (1997) found that 70% of parents of kindergarten-aged children with DLD were ignorant of their child's language difficulties. Similar findings were found in two other studies with primary school children with DLD. In the first study, parents did not appear to be aware of their children's oral language difficulties (Hendricks et al., 2019) and in another study, parents reported no concerns about their child's speech and language, development (Adlof et al., (2017).

In a more recent research, Hobson et al., (2022), interviewed six parents of children with DLD regarding among others their child's language profile. One parent had been concerned about the child's

early speech development but believed the problem would resolve later, and four out of the six parents had initially been concerned when their child was very young (between ages 1 and 2 years). One family, however, only became concerned when their child was around 7 years old (when it became apparent that his language lagged behind that of his younger sibling and younger sibling's peers). Three families (together with their experts) had first questioned if their child had DLD or other neurodevelopmental disorders before the age of 5 (between ages 2 and 4). Also, Auza, Murata & Penaloza (2023) found that parents of 4-6-year-old children with DLD were not accurate regarding the developmental language profile of their child mirroring the fact that parents may not always be aware of the developmental language milestones.

In contrast to the previous group of studies, de Lopez et al. (2021) interviewed ten parents of middle school-aged children with DLD from ten different countries and found that parents reported that their children face difficulties in semantics (e.g., cannot understand the difference between doctor and dentist), in communicating appropriately and maintaining the topic of a conversation in everyday situations. They also mentioned that their children had articulation difficulties.

It seems that in most of the few studies regarding the language profile of children with DLD, - except from de Lopez et al., (2021) the parents seem to be unaware of their child's difficulties, therefore among the aims of the present study was to further explore the above issues in the Greek setting.

THE SOCIO-EMOTIONAL SKILLS OF CHILDREN AND ADOLESCENTS WITH DEVELOPMENTAL LANGUAGE DISORDER ACCORDING TO THEIR PARENTS

Pratt et al., (2006) explored the characteristics and concerns of mothers of adolescents with a history of DLD, regarding their social interaction skills. The parents reported concerns about the adolescents' social behavior. They also mentioned that their adolescents expressed immature behavior, inability to control their anger, insecurity, hypersensitivity, and suffered from panic. It was also reported that they did not have many friends and they were at risk of bullying. In line with the above findings, in Harrison's et al., (2009) study, it was found that parents reported similar patterns of social difficulties for their elementary school children with DLD. In addition, they highlighted the difficulties of children participating and cooperating in working groups, a quite common educational practice in classroom settings.

Furthermore, according to Gough Kenyon et al., (2021), parents reported that their children with DLD had difficulties with social interaction and establishing long-lasting friendships. They also believed that this lack of social competence affected their children's quality of life in general. Furthermore, emotional and social difficulties as well as behavioral problems in comparison to their TD counterparts have been reported by the parents of children with DLD (Forrest et al., 2021; Burnley et al., 2023).

In the same line of results, Hobson et al., (2022) found that parents of children with DLD aged 7 to 17 years, with speech, language, and communication needs (SLCN) including parents of children with DLD reported that their children had a tough time expressing their feelings and reporting bad incidents, such as bullying, to adults. Hobson & Lee, (2022) in another study also found that parents of children 6 to 14 years old with DLD mentioned that their children with DLD used camouflaging or masked behaviors to achieve better conversational skills, such as relying on other people, avoiding choosing an environment where they need to use their language skills, using prosocial behaviors to be acceptable to others, choosing non-verbal communication, like smiling, or using disrupting behavior. These cam-

ouflaging behaviors were underlined by the parents of children with DLD as very exhausting tools for their children's emotional development.

Contradictory results to some extent for social relationships, were found by Lindsay et al., (2016) who investigated the perspectives of parents regarding the emotional and social needs of their children with DLD. The parents reported that their children, despite the language challenges they faced, occasionally had good relationships with their peers. Therefore, few and inconclusive findings exist regarding the socioemotional profile of children with DLD which may be related to the heterogeneity of the sample both on their language and socioemotional skills as well as their age and of course on the methodologies employed by the previous studies (interviews, questionnaires).

THE SCHOOL PERFORMANCE OF CHILDREN AND ADOLESCENTS WITH DLD ACCORDING TO THEIR PARENTS

Understanding and using both spoken and written language is an essential element for all the children in order to succeed in school (Adlof & Hogan, 2018; Conti-Ramsden et al., 2009). In addition to understanding and generating written language, children also learn through listening to and responding to their teacher's spoken language in the classroom (Adlof et al., 2017). In the last decades, only a few studies have investigated parents' perceptions about the school performance of their children with DLD (Adolf et al., 2017; Lindsay et al., 2016; McCabe, 2005; Pratt, 2006).

According to McCabe (2005), the parents of 6 years old children with DLD reported significant difficulties (a) in sustaining their attention during an ongoing school task, (b) in following instructions and rules, and (c) in completing homework tasks or any other task related to school. They also found that children with DLD were at a substantial risk of premature dropping out of school because they felt less "attached" to the school environment.

Also, Pratt et al., (2006) explored the characteristics and concerns of mothers of adolescents with a history of DLD, regarding among others, the school performance of their children. The parents reported concerns about the adolescents' educational achievement (e.g., reading), as well as their future. Lindsay et al., (2016) also examined the parents' perspectives of their elementary school children (8 and 9 years old) with language difficulties regarding their school performance. Parents reported difficulties in reading accuracy and reading comprehension and low levels of satisfaction regarding their children's educational progress. In another study, conducted by de Lopez et al., (2021) parents recognized also reading comprehension difficulties.

In contrast, Hendricks et al., (2019) found that a high percentage of parents of primary school children with DLD were unaware of their children's difficulties in reading accuracy and comprehension, while others were led by concerns of teachers due to children's low school performance.

The previous findings from this small group of studies demonstrate that children with DLD face difficulties with school performance, which are not always identified by their parents. Also, mainly reading has been examined and no other school subjects. There is a need to further examine how parents view their children's school performance in other domains apart from reading such as writing, spelling, narration, etc. in order to have a more holistic view of children's strengths and needs.

THE PRESENT STUDY

To the best of our knowledge, relatively little research has investigated the perceptions of parents of children and adolescents with DLD regarding their language profile, social-emotional skills, and school performance. Additionally, several earlier research has produced contradicting findings, such as those that concern children's friendships and social skills (Lindsay et al., 2016; Pratt et al., 2006; Sheila et al., 2021). Also, how parents understand the term DLD as well as the developmental language history of their children with DLD is under investigated.

The aim of the present study was to investigate how parents of children with DLD conceptualize DLD and the developmental language history of their children. Also, the multifaceted developmental profile of their children on language, socio-emotional skills, and school performance, was explored. Another aim of the study was to investigate possible relationships between oral language skills and school performance. We stated the following research questions: (a) What do parents know about DLD? (b) How do parents conceptualize the language, socio-emotional profile, and school performance, of their children with DLD? (c) To what extent children's oral language skills are correlated with their school performance?

METHODS

Participants

One hundred parents (69 mothers and thirty-one fathers) of 100 Greek-speaking children 3 to 18 years old, (39 were girls and sixty-one were boys), with DLD, participated in the study. Most of the parents (42%) were between 41-50 age years old, 38% were 31-40 years old, 11% were 21-30 years old 8% were 51-60 years old, and one participant was under 20 years old.

Most of the parents (43%) were university graduates, 31% of the parents had received a master's degree, 23% had attended Lyceum and 3% had attended mandatory education. Most of the children (77%) attended primary school (age range: 6-12 years old) while 14% of children attended high school (age range: 12-18 years old) and 9% of the children were enrolled in kindergarten (age range: 3-6 years old).

Measures

Parents completed an online questionnaire (Cronbach's $\alpha = 0.88$), which was based on previous studies (Lindsay et al., 2016; Ralli et al., 2023). The questionnaire included six sections. Every section comprised of open-ended and Likert-type questions (*1 = not good at all, 2 = almost good, 3 = good, 4 = very good, 5 = excellent*). The first section included questions concerning the demographic characteristics of the parents (*age, gender, and parents' educational level*) and their children (*age, gender, school grade, and diagnosis*). The second section included seven close-ended questions regarding the developmental language history of the children (e.g. *when their child began to talk, understand, and communicate, when the concerns about the child's language development began, who noticed the difficulties first*). The third section included an open-ended question regarding *parents' understanding of the term DLD*. The fourth section included two items concerning children's oral language skills. Parents were asked *if their child's oral language skills corresponded to those of their peers or not* in a close-ended question. Then they were asked *to evaluate the level of their child's oral language skills (receptive vocabulary,*

expressive vocabulary, conversation maintenance, articulation, change tone of voice, understanding of figurative language, syntax, grammar, phonological awareness) on a five-point Likert scale. The fifth section included five close-ended questions about children's emotional and social skills (*whether parents considered their child to be extroverted or introverted, how would they describe his/her self-esteem, whether the child understands the difficulties he/she faces and how it feels about them, how would they describe their child's relationship with his/her peers*). In the last section, parents were asked to *evaluate their child's school performance in 5 domains*, narrative skills, reading, writing, spelling, and oral lessons on a basis of a five point-Likert scale (*1= not good at all, 2= almost good, 3=good, 4=very good, 5=excellent*),

Procedure

The research protocol for this study was approved by the Research Ethics Committee of the National and Kapodistrian University of Athens. The online questionnaire was created using Google Forms. Professionals working in public and private sectors in different geographical regions of Greece completed anonymously and voluntarily the online questionnaire. The link to the questionnaire was disseminated to the heads of educational and health services. The invitation explained the importance of collecting further information about DLD. In cases where the questionnaire was not completed, a reminder was sent to them two weeks later. The time needed for the completion of the questionnaire was approximately ten to fifteen minutes.

Results

The Developmental Language History of Children With DLD

Regarding the developmental language history of the children parents were asked to answer in about *what age range their children started to say their first words, comprehend language, and communicate efficiently with others, when they started to have concerns about their child's language and who was the first person who noticed the language difficulties*.

According to Figure 1, most of the parents (38%) reported that their child said his/her first word after the third year of age, 34% of the parents reported after the second year, 26% of the parents replied that their childr said the first words after their first year of age and 2% of the parents replied after the fourth year of age. Regarding the second question "*In about what age range did your child started to comprehend language,*" most of the parents (45%) replied that their child began to understand language after the second year of age, 32% after the first year of age, 21% after the third year of age and 2% after the fourth year of age.

As far as it concerns the third question "*In about what age range did your child started to communicate efficiently with others*" most of the parents (53%) replied after 4 years of age, 29% responded after 3 years of age, 12% of the parents reported that this happened after their child's 2nd birthday, and 6% of the parents answered after the 1st year of age. As it concerns "*when they started to have concerns about their child's language,*" most of the parents (60%) reported that they started to have concerns when their child was at the age of 3-4 years old, while 24% of the parents reported when their child was between 0-2 years of age. It is worth noting that 16% of parents started to have concerns when their child was 5-6 years old.

Regarding the question “*Who was the first person who noticed the language difficulties*” almost half of the sample (47%) replied that this was the mother, followed by the kindergarten teacher (16%), the pediatrician (15%), the father (9%), both parents (2%), the grandmother (1%) the nanny (1%), and the primary school teacher (1%).

Parents’ Understanding of DLD

Parents were asked to report “*what do they think DLD is.*” Their responses were qualitatively analyzed and were grouped into 7 categories (a) *communication difficulties* (e.g. difficulty in the communication), (b) *language delay* (e.g. slow to learn to speak), (c) *general language difficulties* (e.g. difficulties in language development), (d) *comprehension difficulties* (e.g. not understanding language), (e) *difficulties in reading and writing* (e.g. they can’t easily read and write), (f) *speech-articulation difficulties* (can’t pronounce certain sounds, difficulties in speech) (g) *other* (immaturity, difficulties in school).

As it can be seen below in Figure 2, most of the parents (32%) think that DLD refers to “speech-articulation difficulties”, while 31% of the parents thought that it is a “language delay”. Furthermore, 27% of parents reported that DLD refers to “communication difficulties”, 17% mentioned that DLD means “general language difficulties”, 10% said that DLD refers to “comprehension difficulties”, and 8% thought that DLD refers to “reading and writing difficulties”. Last, 17% of parents reported “other answers”, and 4% of the parents mentioned that they “did not know”.

Figure 1. The developmental language history of the children with DLD

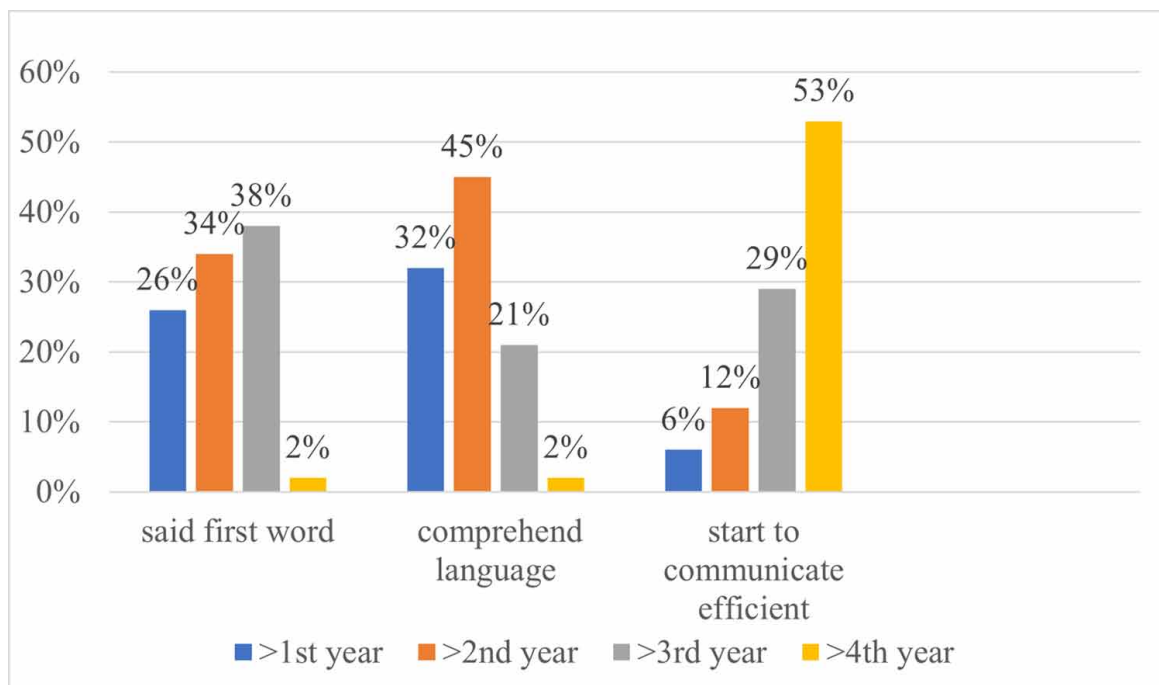
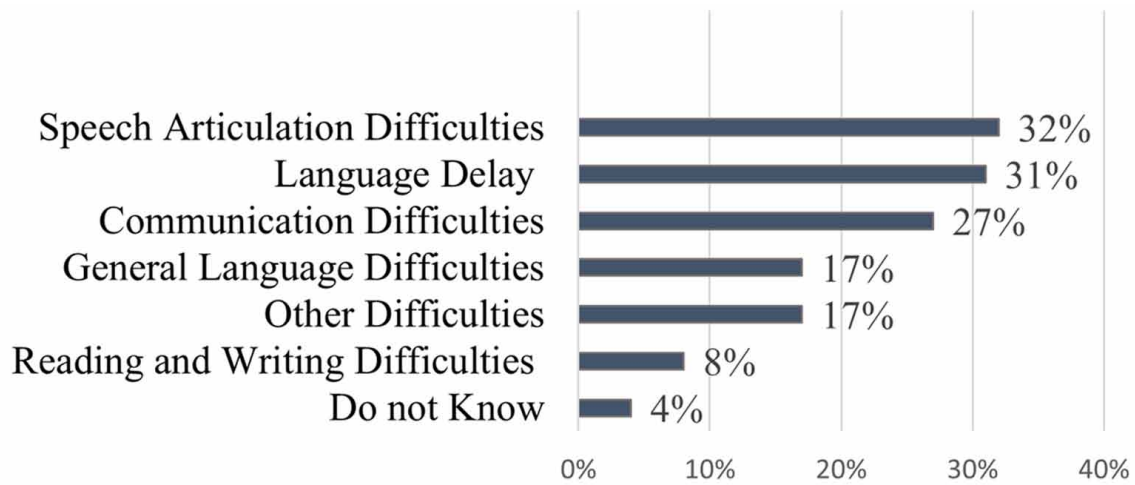


Figure 2. What do you think that DLD is?



The Oral Language Profile of Children With DLD

Regarding the first question “*To what extent do parents think that their child’s oral language skills were equivalent to his/her peers,*” most of the parents (63%) acknowledged that their child’s oral language skills were not equivalent to their peers.

When they were asked to evaluate the level of their child’s oral language skills on a Likert-type scale (*1= not good at all, 2= almost good, 3=good, 4=very good, 5=excellent*), receptive language and changing tone of voice were evaluated as “very good”, while expressive vocabulary, conversation maintenance, and articulation, understanding of figurative language, syntax, grammar, and phonological awareness were rated as “good” (Table 1). According to the Friedman test, the differences were statistically significant ($\chi^2(8)=170,71$ $p<0,001$).

Further, Wilcoxon comparisons showed that parents rated children’s receptive vocabulary statistically significantly better than expressive vocabulary ($z= -4,40$, $p < 0,001$), conversation maintenance, ($z=-3,87$, $p < 0,001$), articulation, ($z= -5,29$, $p < 0,001$), use of figurative language, ($z=-5,06$, $p < 0,001$), syntax, ($z=-6,47$, $p < 0,001$), and grammar, ($z=-6,54$, $p < 0,001$). Also, changing the tone of voice was rated as statistically significantly better than understanding figurative language, ($z=-3,77$, $p < 0,001$), and conversation maintenance was rated as significantly better than articulation, ($z= -3,01$, $p = 0,003$).

The Socioemotional Profile of Children With DLD

Regarding the first question “*Do you think that your child is introverted or extroverted?*” most of the parents (56%) characterized their child as extroverted while fewer parents (42%) answered that their child was introverted. Furthermore, 2% of parents reported that they are not sure whether their child is extroverted or introverted.

With respect to the question, “*How would you describe your child’s self-esteem*” 38% of the parents evaluated this as “very good” 36% as “moderate”, eighteen% of the parents rated it as “excellent”, 5% rated it as “low”, and 3% did not reply. As regards “*whether their child understands the language dif-*

Socio-Emotional Skills, and School Performance of Children and Adolescents

Table 1. The oral language skills of the children with DLD according to their parents (1= not good at all, 2= almost good, 3=good, 4=very good, 5=excellent)

Oral language skills	N	Minimum	Maximum	Mean	Std. Deviation
Receptive vocabulary	100	1.00	5.00	3.62	0.92
Expressive vocabulary	100	1.00	5.00	3.31	0.88
Conversation maintenance	100	1.00	5.00	3.25	0.92
Articulation	100	1.00	5.00	2.92	0.97
Changing the tone of voice	100	1.00	5.00	3.51	0.95
Understanding of figurative Language	100	1.00	5.00	3.00	1.04
Syntax	100	1.00	5.00	2.53	1.18
Grammar	100	1.00	5.00	2.53	1.18
Phonological awareness	100	1.00	5.00	3.42	1.31

difficulties, he/she faces,” 48% answered that they understand their language difficulties, whereas 31% replied that their child is not aware of their difficulties.

Concerning the question “How does your child feel in relation to the language difficulties he/she faces,” 32% of the parents mentioned that their child feels anxiety, 23% reported shame, 9% of the parents reported anger, and 5% mentioned fear. However, most (47%) of the parents answered that their child does not have any negative feelings. As it concerns the last question “How you would evaluate your child’s relationships with others,” 35% of the parents characterized them as “very good”, 28% as “excellent”, 31% of the parents said they were “good”, and 6% of the parents described the relationships with others as “not good”.

The School Performance of Children With DLD

Regarding the school performance of children with DLD (Table 2), parents characterized their child’s reading, spelling, and narrative skills at a “good” level, while the performance in oral lessons (e.g., history, geography, etc.) and writing were evaluated as “almost good. The differences were found to be statistically significant ($\chi^2(4)=86,51$ $p<0,001$). Further Wilcoxon comparisons showed that parents rated children’s performance in narrative skills to be statistically significantly better than in writing ($z=6,88$, $p < 0,001$) and in oral lessons, ($z= -5,79$, $p < 0,001$).

Relationship Between Oral Language Skills and School Performance

To determine if there is a correlation between children’s oral language skills and their school performance a Spearman Rho correlation coefficient was used (Table 3). It was found that the narrative skills were statistically significantly correlated with receptive vocabulary [$\rho(100) = 0,63$, $p < 0,001$], expressive vocabulary [$\rho(100) = 0,61$, $p < 0,001$], conversation maintenance [$\rho(100) = 0,69$, $p < 0,001$], changing the tone of voice [$\rho(100) = 0,54$, $p < 0,001$], understanding of figurative language [$\rho(100) = 0,53$, $p < 0,001$], syntax [$\rho(100) = 0,43$, $p < 0,001$], phonological awareness [$\rho(100) = 0,47$, $p < 0,001$], grammar [$\rho(100) = 0,40$, $p < 0,001$], and articulation [$\rho(100) = 0,32$, $p < 0,001$].

Table 2. The school performance of children with DLD (1=not good at all, 2=almost good, 3=good, 4=very good, 5=excellent)

School performance	N	Minimum	Maximum	Mean	Std. Deviation
Narrative Skills	98	1.00	5.00	3.23	1.11
Writing	83	1.00	5.00	2.48	1.08
Reading	87	1.00	5.00	2.73	1.14
Spelling	85	1.00	5.00	2.56	1.10
Oral lessons	68	1.00	5.00	2.90	1.08

It was also found that writing was statistically significantly correlated with grammar [$\rho(100) = 0,66, p < 0,001$], phonological awareness [$\rho(100) = 0,60, p < 0,001$], the syntax [$\rho(100) = 0,65, p < 0,001$], conversation maintenance [$\rho(100) = 0,50, p < 0,001$], understanding of figurative language [$\rho(100) = 0,46, p < 0,001$], expressive vocabulary [$\rho(100) = 0,43, p < 0,001$], receptive vocabulary [$\rho(100) = 0,39, p < 0,001$], articulation [$\rho(100) = 0,36, p < 0,001$], and changing the tone of voice [$\rho(100) = 0,34, p < 0,001$].

Reading was also found to be statistically significantly correlated with phonological awareness [$\rho(100) = 0,60, p < 0,001$], grammar [$\rho(100) = 0,60, p < 0,001$], syntax [$\rho(100) = 0,58, p < 0,001$], articulation [$\rho(100) = 0,39, p < 0,001$], understanding of figurative language [$\rho(100) = 0,36, p < 0,001$], changing the tone of voice [$\rho(100) = 0,34, p < 0,001$], conversation maintenance [$\rho(100) = 0,31, p < 0,001$], expressive vocabulary [$\rho(100) = 0,27, p < 0,001$], and receptive vocabulary [$\rho(100) = 0,18, p < 0,005$].

Spelling was also statistically significantly correlated with grammar [$\rho(100) = 0,63, p < 0,001$], phonological awareness [$\rho(100) = 0,60, p < 0,001$], syntax [$\rho(100) = 0,59, p < 0,001$], articulation [$\rho(100) = 0,39, p < 0,001$], conversation maintenance [$\rho(100) = 0,33, p < 0,001$], changing the tone of voice [$\rho(100) = 0,33, p < 0,001$], understanding of figurative language [$\rho(100) = 0,28, p < 0,001$], expressive vocabulary [$\rho(100) = 0,27, p < 0,005$], and receptive vocabulary [$\rho(100) = 0,17, p < 0,005$].

Last, statistically significant correlations were found between oral lessons and grammar [$\rho(100) = 0,58, p < 0,001$], syntax [$\rho(100) = 0,53, p < 0,001$], phonological awareness [$\rho(100) = 0,47, p < 0,001$], understanding of figurative language [$\rho(100) = 0,30, p < 0,001$], conversation maintenance [$\rho(100) = 0,27, p < 0,001$], articulation [$\rho(100) = 0,27, p < 0,001$], expressive vocabulary [$\rho(100) = 0,24, p < 0,001$], and receptive vocabulary [$\rho(100) = 0,21, p < 0,005$].

DISCUSSION

The current study aimed to expand our knowledge on how parents of children and adolescents with DLD understand DLD, as well as the developmental language history of their children and their language, socioemotional skills, and school performance. Also, possible relationships between oral language skills and school performance were explored.

Concerning their children's developmental language history, a high percentage of parents stated that their child started: to speak after the third year, to understand language after the second year, to com-

Table 3. Correlations between oral language skills and school performance

	Narrative Skills	Writing	Reading	Spelling	Oral lessons
Receptive Vocabulary	0,63**	0,39**	0,18*	0,17*	0,21*
Expressive Vocabulary	0,61**	0,43**	0,27**	0,27*	0,24**
Conversation Maintenance	0,69**	0,50**	0,31**	0,33**	0,27**
Articulation	0,32**	0,36**	0,39**	0,39**	0,27**
Changing the tone of voice	0,54**	0,34**	0,34**	0,33**	0,14
Understanding of Figurative Language	0,53**	0,46**	0,36**	0,28**	0,30**
Syntax	0,43**	0,65**	0,58**	0,59**	0,53**
Grammar	0,40**	0,66**	0,60**	0,63**	0,58**
Phonological awareness	0,47**	0,60**	0,60**	0,60**	0,47**

*p < 0,05, **p < 0,01

municate effectively with others after the age of four. Furthermore, around the age of 3 to 4 years old, most parents began to worry about their child's language development. The current finding confirms a group of previous studies according to which parents recognized the delayed developmental language trajectories of their children as well as impairments in language, speech, and communication (Adlof et al., 2017; Lopez et al., 2021). Nevertheless, the present findings contradict with Auza et al., (2023) study who found that parents of 4-6-year-old children with DLD were not accurate regarding the developmental language profile of their child mirroring the fact that parents may not always be aware of language developmental milestones. Maybe these differences could be attributed to the diverse cultural contexts since the present results come from the Greek context, in which most of the parents are well educated while Auza et al., (2023) conducted their research in Mexico which is a developing country with limited resources. Additionally, in the present study, the mother was typically the first person to identify the language problems, which comes in accordance with Pratt et al., (2006).

Regarding parents' understanding of DLD, most of the participants defined it as "speech articulation difficulties" and as "a language delay." Fewer parents reported that DLD has to do with "communication difficulties," "general language difficulties," and "comprehension difficulties." It seems that parents define DLD as mostly language problems that can be easily seen, such as articulation problems, or language delay, when they probably compare their child's language performance with his/her peers. This hypothesis is also confirmed by the fact that in the current study, the parents acknowledged that their children's oral language skills were not at the same level as those of their peers.

Regarding parent's perceptions about their child's oral language skills, they reported that receptive language and changing tone of voice ranged in a better level than their expressive vocabulary, conversation maintenance, articulation, understanding of figurative language, syntax, grammar, and phonological awareness. Consequently, parents in the Greek setting seem to be aware of the language difficulties of their children. Similar results were also found by Adlof et al., (2017), however, another group of studies has found that a large number of parents are unaware of their child's difficulties with language (Hendricks et al., 2019; Tomblin et al., 1997). Maybe this could be attributed to the fact that Tomblin's study was conducted more than twenty years ago when all the research about DLD/SLI/SLCD was in the beginning and consequently, the parents were less aware of such difficulties.

When it comes to parents' perceptions regarding children's socioemotional skills half of the sample characterized their children as extroverted whereas the other half of the parents characterized them as introverted. Furthermore, most of the parents believed that their children have balanced self-esteem, while half of the participants reported that their child experiences fear, and anxiety due to language difficulties. Similar findings were reported by Forrest, Gibson, & St Clair, (2021) who showed that parents of adolescents with DLD reported more emotional difficulties in comparison to the parents with typically developing children. In the same line it has also been demonstrated by studies focusing on the children with DLD themselves, that they reported prominent levels of stress (Wadman et al., 2011).

Regarding the social relationships of their child with their peers a coherent pattern towards one or other direction was not evident since a large heterogeneity characterized the domain of social skills. The present findings confirm the heterogeneous profile of those children as well as the contradictory results from previous studies. For example, Lindsay et al. (2016) found that parents reported that their children, despite language challenges or difficulties had good relationships and interactions with their peers. Another group of studies have shown that children and adolescents with DLD, according to their parents have low social skills, poor social interaction that could exacerbate social problems by providing fewer opportunities to learn and practice social skills, as well as poor long-lasting relationships with their friends (Eadie et al., 2018; Burnley et al., 2023; Gough Kenyon et al., 2021; Hobson et al., 2022; Lopez et al., 2021; Mok et al., 2014; Voci et al., 2006).

Turning to school performance of children with DLD, parents characterized their child's reading, spelling, and narrative skills at an average level, while they reported more difficulties in oral lessons (e.g., history, geography, etc.) and writing. The above finding is consistent with previous studies, according to which oral expression is registering high percentages of difficulties for children with DLD diagnosis (e.g., Roello et al., 2015), due to impairments to short-term and working memory (Bishop et al., 2017). Additionally, young children with DLD often display poorer initial reading and writing skills and fail to catch up to their peers (Catts et al., 2006; Ralli et al., 2022).

Regarding the relationship between oral language skills and school performance, results revealed that narrative skills, writing, reading, and spelling were associated with vocabulary (receptive and expressive), conversation maintenance, syntax, phonological awareness, grammar, changing the tone of voice, understanding of figurative language and articulation. The above results confirm previous studies which show that oral language skills play a significant role in written text production (Ralli et al., 2022), that vocabulary, morphological and phonological skills predicts narrative speech in young children 5-7 years old (Ralli et al. 2021) as well as that reading is correlated with phonological awareness (Lara-Diaz et al. 2021).

CONCLUSION

The purpose of the current study was to investigate parents' perceptions of children and adolescents with DLD regarding their understanding of DLD, the developmental language history of their children, their language, socio-emotional, and school performance profile. Also, the study explored to what extent children's oral language skills are associated with their school performance.

The information offered by parents is valuable and can help us understand language difficulties thoroughly through the parents' perspectives. Parents seem to acknowledge their child's language difficulties as well as potential problems in other developmental domains. They were also quite accurate about their

child's oral language developmental history and thought that DLD has mainly to do with articulation difficulties and language delay. It is of vital importance to mention that this study was conducted for the first time in Greece, therefore future studies need to replicate and further explore parents' perceptions about DLD. Understanding the parents' views about the strengths and challenges of their children can contribute to a better understanding of the needs of both children and parents.

REFERENCES

- Adlof, S. M., & Hogan, T. P. (2018). Understanding Dyslexia in the Context of Developmental Language Disorders. *Language, Speech, and Hearing Services in Schools*, 49(4), 762–773. doi:10.1044/2018_LSHSS-DYSLC-18-0049 PMID:30458538
- Adlof, S. M., Scoggins, J., Brazendale, A., Babb, S., & Petscher, Y. (2017). Identifying children at risk for language impairment or dyslexia with group-administered measures. *Journal of Speech, Language, and Hearing Research: JSLHR*, 60(12), 3507–3522. doi:10.1044/2017_JSLHR-L-16-0473 PMID:29222567
- Amin, M. S., & Harrison, R. L. (2009). Understanding Parents' Oral Health Behaviors for Their Young Children. *Qualitative Health Research*, 19(1), 116–127. doi:10.1177/1049732308327243 PMID:18997150
- Ash, A. C., Christopoulos, T. T., & Redmond, S. M. (2020). “Tell me about your child”: A grounded theory study of mothers understanding of language disorder. *American Journal of Speech-Language Pathology*, 29(2), 819–840. doi:10.1044/2020_AJSLP-19-00064 PMID:32348158
- Auza, B. A., Murata, C., & Penaloza, C. (2023). Predictive validity of a parental questionnaire for identifying children with developmental language disorders. *Frontiers in Psychology*, 14, 14. doi:10.3389/fpsyg.2023.1110449
- Bishop, D. V., & McDonald, D. (2009). Identifying language impairment in children: Combining language test scores with parental reports. *International Journal of Language & Communication Disorders*, 44(5), 600–615. doi:10.1080/13682820802259662 PMID:19387886
- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., & Greenhalgh, T. (2017). Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 58(10), 1068–1080. doi:10.1111/jcpp.12721 PMID:28369935
- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., & Greenhalgh, T. Catalise Consortium. (2016). CATALISE: A multinational and multidisciplinary Delphi consensus study. Identifying language impairments in children. *PLoS One*, 11(7), e0158753. doi:10.1371/journal.pone.0158753 PMID:27392128
- Burnley, A., St Clair, M., Bedford, R., Wren, Y., & Dack, C. (2023). Understanding the prevalence and manifestation of anxiety and other socio-emotional and behavioral difficulties in children with DLD. *Journal of Neurodevelopmental Disorders*, 15(17).
- Catts, H., Adlof, S., & Ellis Weismer, S. (2006). Language Deficits in Poor Comprehenders: A Case for the Simple View of Reading. *Journal of Speech, Language, and Hearing Research: JSLHR*, 49(2), 278–293. doi:10.1044/1092-4388(2006/023) PMID:16671844

Catts, H. W., Adlof, S. M., Hogan, T. P., & Weismer, S. E. (2005). Are specific language impairment and dyslexia distinct disorders. *Journal of Speech, Language, and Hearing Research: JSLHR*, 48(6), 1378–1396. doi:10.1044/1092-4388(2005/096) PMID:16478378

Christopoulos, T., & Kean, J. T. (2020). General education teachers' contribution to the identification of children with language disorders. *American Speech-Language Hearing Association*, 5, 770–777. doi:10.1044/2020_PERSP-19-00166

Conti-Ramsden, G., & Botting, N. (2008). Emotional health in adolescents with and without a history of specific language impairment (SLI). *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 49(5), 516–525. doi:10.1111/j.1469-7610.2007.01858.x PMID:18221347

Conti-Ramsden, G., & Botting, N. (2008b). Risk of affective disorders in adolescents with a history of SLI. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 49(5), 516–525. doi:10.1111/j.1469-7610.2007.01858.x PMID:18221347

Conti-Ramsden, G., Durkin, K., Simkin, Z., & Knox, E. (2009). Specific language impairment and school outcomes. Identifying and explaining variability at the end of compulsory education. *International Journal of Language & Communication Disorders*, 44(1), 15–35. doi:10.1080/13682820801921601 PMID:18608604

Conti-Ramsden, G., Durkin, K., Toseeb, U., Botting, N., & Pickles, A. (2018). Education and employment outcomes of young adults with a history of developmental language disorder. *International Journal of Language & Communication Disorders*, 53(2), 237–255. doi:10.1111/1460-6984.12338 PMID:29139196

Conti-Ramsden, G., Mok, P., Durkin, K., Pickles, A., Toseeb, U., & Botting, N. (2019). Do emotional difficulties and peer problems occur together from childhood to adolescence? The case of children with a history of developmental language disorder (DLD). *European Child & Adolescent Psychiatry*, 28(7), 993–1004. doi:10.1007/00787-018-1261-6 PMID:30519863

Croteau, C., McMahon-Morin, P., Morin, C., Jutras, B., Trudeau, N., & Le Dorze, G. (2015). Life habits of school-aged children with specific language impairment as perceived by their parents and by school professionals. *Journal of Communication Disorders*, 58, 21–34. doi:10.1016/j.jcomdis.2015.07.005 PMID:26342290

De Lopez, K. J., Feiberg, J., Baena, S., Lyons, R., & Harding, S. (2021). So I told him to look for friends” Barriers and protecting factors that may facilitate inclusion for children with Language Disorder in every day social settings: Cross-cultural qualitative interviews with parents. *Research in Developmental Disabilities*, 115.

Dubois, P., St-Pierre, M.-C., Desmarais, C., & Guay, F. (2020). Young Adults With Developmental Language Disorder: A Systematic Review of Education, Employment, and Independent Living Outcomes. *Journal of Speech, Language, and Hearing Research: JSLHR*, 63(11), 3786–3800. doi:10.1044/2020_JSLHR-20-00127 PMID:33022192

Forrest, C. L., Gibson, J. L., Halligan, S. L., & St Clair, M. C. (2018). Longitudinal analysis of early language difficulty and peer problems on later emotional difficulties in adolescence: Evidence from the Millennium Cohort Study. *Autism & Developmental Language Impairments*, 3, 2396941518795392. doi:10.1177/2396941518795392

Forrest, C. L., Gibson, J. L., & St Clair, M. C. (2021). Social functioning as a mediator between Developmental Language Disorder (DLD) and emotional problems in adolescents. *International Journal of Environmental Research and Public Health*, 18.

Gough Kenyon, S. M., Palikara, O., & Lucas, R. M. (2021). Consistency of Parental and Self-Reported Adolescent Wellbeing: Evidence From Developmental Language Disorder. *Frontiers in Psychology*, 12, 12. doi:10.3389/fpsyg.2021.629577 PMID:33776852

Hendricks, A., Adlof, S., Alonzo, C., Fox, A., & Hogan, T. (2019). Identifying children at risk for developmental language disorder using a brief, whole-classroom screen. *Journal of Speech, Language, and Hearing Research: JSLHR*, 62(4), 1–13. doi:10.1044/2018_JSLHR-L-18-0093 PMID:30986146

Hobson, H., Kalsi, M., Cotton, L., Forster, M., & Toseeb, U. (2022). Supporting the mental health of children with speech, language and communication needs: The views and experiences of parents. *Autism & Developmental Language Impairments*, 7.

Lara-Díaz, M. F., Mateus-Moreno, A., & Beltrán-Rojas, J. C. (2021). Reading and Oral Language Skills in Children With Developmental Language Disorder: Influence of Socioeconomic, Educational, and Family Variables. *Frontiers in Psychology*, 12, 718988. doi:10.3389/fpsyg.2021.718988 PMID:34690876

Law, J., McBean, K., & Rush, R. (2011). Communication skills in a population of primary school-aged children raised in an area of pronounced social disadvantage. *International Journal of Language & Communication Disorders*, 46(6), 657–664. doi:10.1111/j.1460-6984.2011.00036.x PMID:22026567

Lindsay, G., & Dockrell, J. E. (2012). Longitudinal patterns of behavioral, emotional, and social difficulties and self-concepts in adolescents with a history of specific language impairment. *Language, Speech, and Hearing Services in Schools*, 43(4), 445–460. doi:10.1044/0161-1461(2012/11-0069) PMID:22826367

Lindsay, G., Ricketts, J., Peacey, L., Dockrell, J., & Charman, T. (2016). Meeting the educational and social needs of children with language impairment or autism spectrum disorder: The parents' perspectives. *International Journal of Language & Communication Disorders*, 51(5), 495–507. doi:10.1111/1460-6984.12226 PMID:26952185

Marshall, J., Harding, S., & Roulstone, S. (2017). Language development, delay and intervention—The views of parents from communities that speech and language therapy managers in England consider to be under-served. *International Journal of Language & Communication Disorders*, 52(4), 489–500. doi:10.1111/1460-6984.12288 PMID:27995697

McCabe, P. C. (2005). Social and behavioral correlates of preschoolers with Specific Language Impairment. *Psychology in the Schools*, 42(4), 373–387. doi:10.1002/pits.20064

Mok, P. L. H., Pickles, A., Durkin, K., & Conti-Ramsden, G. (2014). Longitudinal trajectories of peer relations in children with specific language impairment. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 55(5), 516–527. doi:10.1111/jcpp.12190 PMID:24410167

- Nilsson, K., & Jensen de López, K. (2016). Theory of mind in children with Specific Language Impairment: A systematic review and meta-analysis. *Child Development*, 87 (1), 143–153. doi:10.1111/cdev.12462
- Ottosson, S., Lorentzon, U. S., Kadesjo, B., Gillberg, C., & Miniscalco, C. (2022). Neurodevelopmental problems and quality of life in 6-year-olds with a history of developmental language disorder. *Acta Paediatrica (Oslo, Norway)*, 111(1), 115–122. doi:10.1111/apa.16104 PMID:34516681
- Palikara, O., & Ralli, A. M. (2013). Specific language impairment in childhood and adolescence: Educational and clinical implications. *Psychology (Irvine, Calif.)*, 20, 243–266.
- Radecki, L., Sand-Loud, N., O'Connor, K. G., Sharp, S., & Olson, L. M. (2011, July 01). Trends in the use of standardized tools for developmental screening in early childhood: 2002–2009. *Pediatrics*, 128(1), 14–19. doi:10.1542/peds.2010-2180 PMID:21708798
- Ralli, A. M., Chrysochoou, E., Roussos, P., Diakogiorgi, K., Dimitropoulou, P., & Filippatou, D. (2021). Executive Function, Working Memory, and Verbal Fluency in Relation to Non-Verbal Intelligence in Greek-Speaking School-Age Children with Developmental Language Disorder. *Brain Sciences*, 11(5), 604. doi:10.3390/brainsci11050604 PMID:34066872
- Ralli, A. M., Kalliontzi, E., & Kazali, E. (2022). Teachers views of children with Developmental Language Disorder in Greek mainstream schools. *Frontiers in Education*, 7, 832240. doi:10.3389/educ.2022.832240
- Ralli, A. M., Kazali, E., Kanellou, M., Mouzaki, A., Antoniou, F., Diamanti, V., & Papaioannou, S. (2021). Oral Language and Story Retelling During Preschool and Primary School Years: Developmental Patterns and Interrelationships. *Journal of Psycholinguistic Research*, 50(5), 949–965. doi:10.1007/10936-021-09758-3 PMID:33515178
- Ramus, F., Marshall, C. R., Rosen, S., & van der Lely, H. K. (2013). Phonological deficits in specific language impairment and developmental dyslexia: Towards a multidimensional model. *Brain*, 136(2), 630–645. doi:10.1093/brain/aws356 PMID:23413264
- Roello, M., Ferretti, M. L., Colonnello, V., & Levi, G. (2015). When words lead to solutions: Executive function deficits in preschool children with specific language impairment. *Research in Developmental Disabilities*, 37, 216–222. doi:10.1016/j.ridd.2014.11.017 PMID:25528081
- Roulstone, S. (2015). Exploring the relationship between client perspectives, clinical expertise and research evidence. *International Journal of Speech-Language Pathology*, 17(3), 211–221. doi:10.3109/17549507.2015.1016112 PMID:25850604
- Rudolph, J. M. (2017). Case history risk factors for specific language impairment: A systematic review and meta-analysis. *American Journal of Speech-Language Pathology*, 26(3), 991–1010. doi:10.1044/2016_AJSLP-15-0181 PMID:28672377
- Silliman, E. R., & Berninger, V. W. (2011). Cross-disciplinary dialogue about the nature of oral and written language problems in the context of developmental, academic, and phenotypic profiles. *Topics in Language Disorders*, 31(1), 6–23. doi:10.1097/TLD.0b013e31820a0b5b

Sofologi, M., Kougioumtzis, G. A., & Koundourou, C. (2023). *Perspectives of Cognitive, Psychosocial, and Learning Difficulties From Childhood to Adulthood: Practical Counseling Strategies*. doi:10.4018/978-1-6684-8203-2

St Clair, M. C., Pickles, A., Durkin, K., & Conti-Ramsden, G. A. (2011). Longitudinal study of behavioral, emotional and social difficulties in individuals with a history of specific language impairment (SLI). *Journal of Communication Disorders*, 44(2), 186–199. doi:10.1016/j.jcomdis.2010.09.004 PMID:20970811

Sultana, N., Wong, L. L. N., & Purdy, S. C. (2020). Natural language input: Maternal education, socio-economic deprivation, and language outcomes in typically developing children. *Language, Speech, and Hearing Services in Schools*, 51(4), 1049–1070. doi:10.1044/2020_LSHSS-19-00095 PMID:32755504

Tomblin, J. B., Records, N. L., Buckwalter, P., Zhang, X., Smith, E., & O'Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, and Hearing Research: JSLHR*, 40(6), 1245–1260. doi:10.1044/jslhr.4006.1245 PMID:9430746

Tomblin, J. B., Zhang, X., Buckwalter, P., & O'Brien, M. (2003). The stability of primary language disorder: Four years after kindergarten diagnosis. *Journal of Speech, Language, and Hearing Research: JSLHR*, 46(6), 1283–1296. doi:10.1044/1092-4388(2003/100) PMID:14700355

Van den Bedem, N. P., Dockrell, J. E., van Alphen, P. M., Kalicharan, S. V., & Rieffe, C. (2018). Victimization, bullying, and emotional competence: Longitudinal associations in (Pre)adolescents with and without developmental language disorder. *Journal of Speech, Language, and Hearing Research: JSLHR*, 61(8), 2028–2044. doi:10.1044/2018_JSLHR-L-17-0429 PMID:29998317

Vernon-Feagans, L., Bratsch-Hines, M., Reyonlds, E., & Willoughby, M. (2020). How early maternal language input varies by race and education and predicts later child language. *Child Development*, 91(4), 1098–1115. doi:10.1111/cdev.13281 PMID:31317532

Wadman, R., Botting, N., Durkin, K., & Conti-Ramsden, G. (2011). Changes in emotional health symptoms in adolescents with specific language impairment. *International Journal of Language & Communication Disorders*, 46(6), 641–656. doi:10.1111/j.1460-6984.2011.00033.x PMID:22026566