



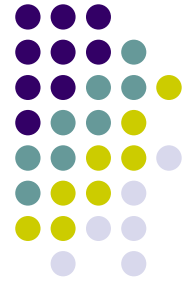
Literacy skills in adults with early language or other disorders

**Margarita Seni, Maria Vlassopoulos, Rosalia Yannakis,
Vasiliki Rotsika, Aikaterini Sakellariou.**

E-mail address: senimargarita@yahoo.gr

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS
MEDICAL SCHOOL
1st DEPARTMENT OF PSYCHIATRY

Longitudinal research on the long-term consequences of SLI shows that these children in the future might show:



- Learning disorders
- Poor literacy abilities
- Poor academic and school achievement
- Social adjustment difficulties
- Emotional and behavioural disorders



Consequences of SLI in academic achievement

- Children develop learning difficulties even if they have received therapeutic intervention
- Vulnerable literacy abilities are in part due to: difficulties in phonological processing, semantic difficulties, and morphosyntactic disorders

Specific Language Disorders often show a high co-morbidity with other psychiatric disorders:



- Externalizing disorders: behaviour disorders and ADHD
- Internalizing disorders: emotional disorders, such as, anxiety or depression



Research shows that:

- Children with psychiatric disorders often have language and communication disorders, which usually remain undiagnosed, owing to their more prevalent psychiatric symptoms (Cohen et al., 1993; Toppelberg & Shapiro, 2000).
- Severe specific language impairment, with an impaired receptive component, has a worse prognosis with respect to the emotional and behavioral areas, as well as in social adjustment (Toppelberg & Shapiro, 2000).

Aim



- To investigate and to describe the literacy abilities of young adults with a history of specific language impairment, compared to young adults with a history of psychiatric disorders.

Method

Data was collected from:



- The participants' files, that is, from the records kept at our Service concerning their assessment, diagnosis, intervention and outcome.
- A test which was devised to examine the subject's reading ability, reading comprehension, writing skills and a test for mathematical reasoning.
- This latter data was collected during one session at our Service at a time of the subject's convenience. The examiner was a speech/ language and learning specialist.

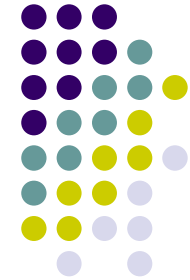
The participants



1. **Group A** consists of 7 subjects (3 female, 4 male), with a diagnosis of specific language impairment in childhood, F80 according to ICD-9 (1977).
2. **Group B** consists of 8 subjects (6 female, 2 male), with internalizing or externalizing psychological disorders according to the ICD-9 (1977).

Table 1

Subjects	Type of Diagnosis	ICD-9 code
Subject 1	Adjustment reaction(Internalizing disorder)	309
Subject 2	Disturbance of emotions specific to childhood and adolescence (Internalizing disorder)	313
Subject 3	Neurotic disorders (Internalizing disorder)	300
Subject 4	Disturbance of emotions specific to childhood and adolescence (Internalizing disorder)	313
Subject 5	Hyperkinetic syndrome of childhood-Attention deficit disorder (Externalizing disorder)	314
Subject 6	Disturbance of emotions specific to childhood and adolescence- Learning disorders (Internalizing disorder)	313
Subject 7	Neurotic disorders- Learning disorders (Internalizing disorder)	300
Subject 8	Disturbance of emotions specific to childhood and adolescence - Learning disorders (Internalizing disorder)	313



Parameters tested were:



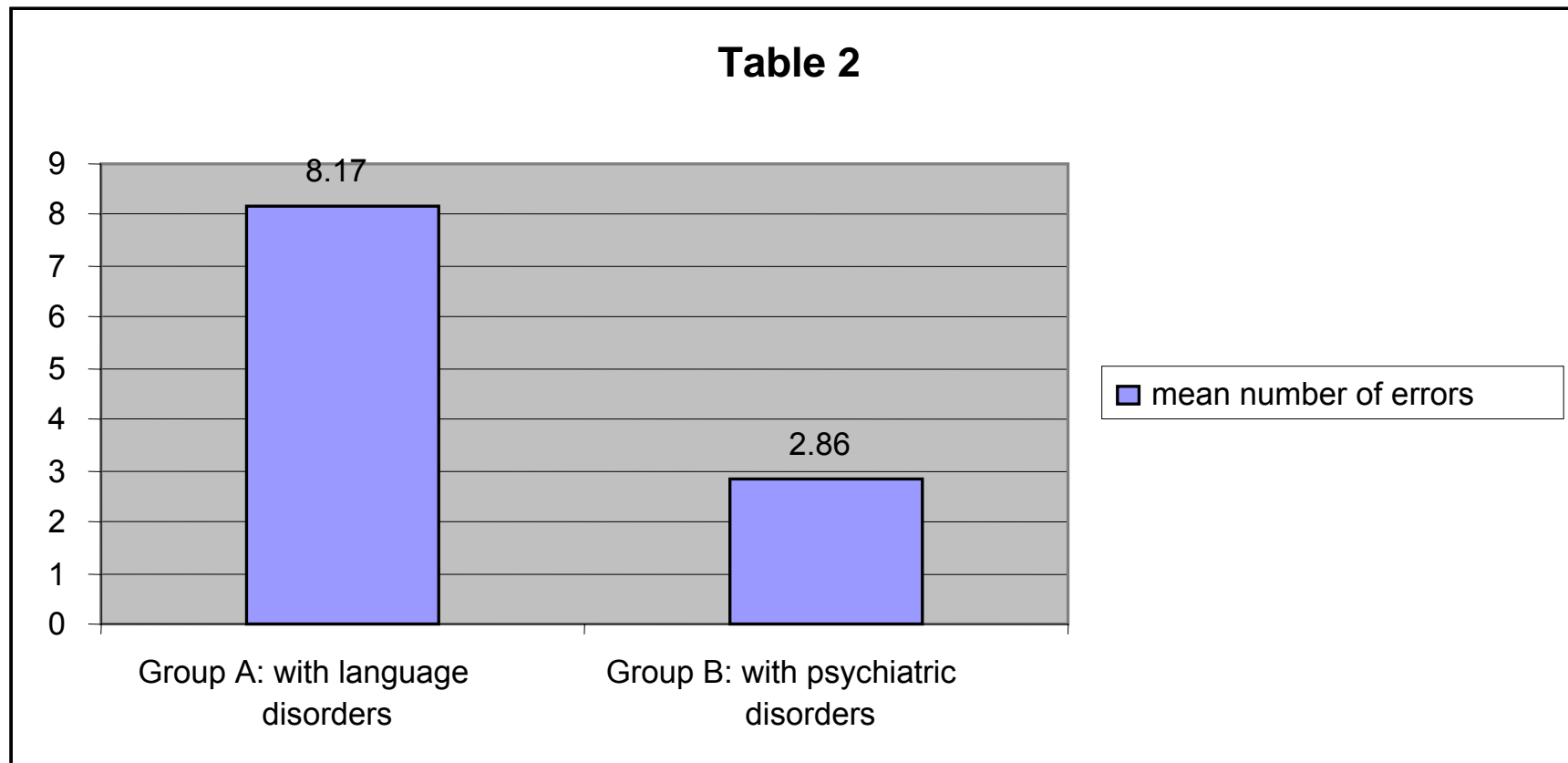
- Time taken to read a text (approx. 200 words)
- Number and type of errors made during reading.
- Number of errors, when answering reading comprehension questions (N=4).
- Number and type of errors made in written expression.
- Right/ wrong in mathematical reasoning problem.

RESULTS

- 1. **Between group comparison concerning the number of reading errors**

Group A showed a Mean number of errors = 8.17. In this group, 57.2% made 3-4 errors.

Group B showed a Mean number of errors = 2.86. In this group, 50% made 2-3 errors





2. Between group comparison concerning reading speed.

Group A read the passage in a Mean Time of 82.17 sec.

Group B read the passage in a Mean Time of 82.75 sec.

3. Between group comparison concerning frequency and type of reading errors.

Group A showed most errors in word replacement (44.6%) and secondly, in word omission (8.9%).

Group B showed most errors in word replacement (35%) and secondly, in following punctuation (20%).

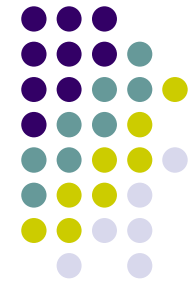
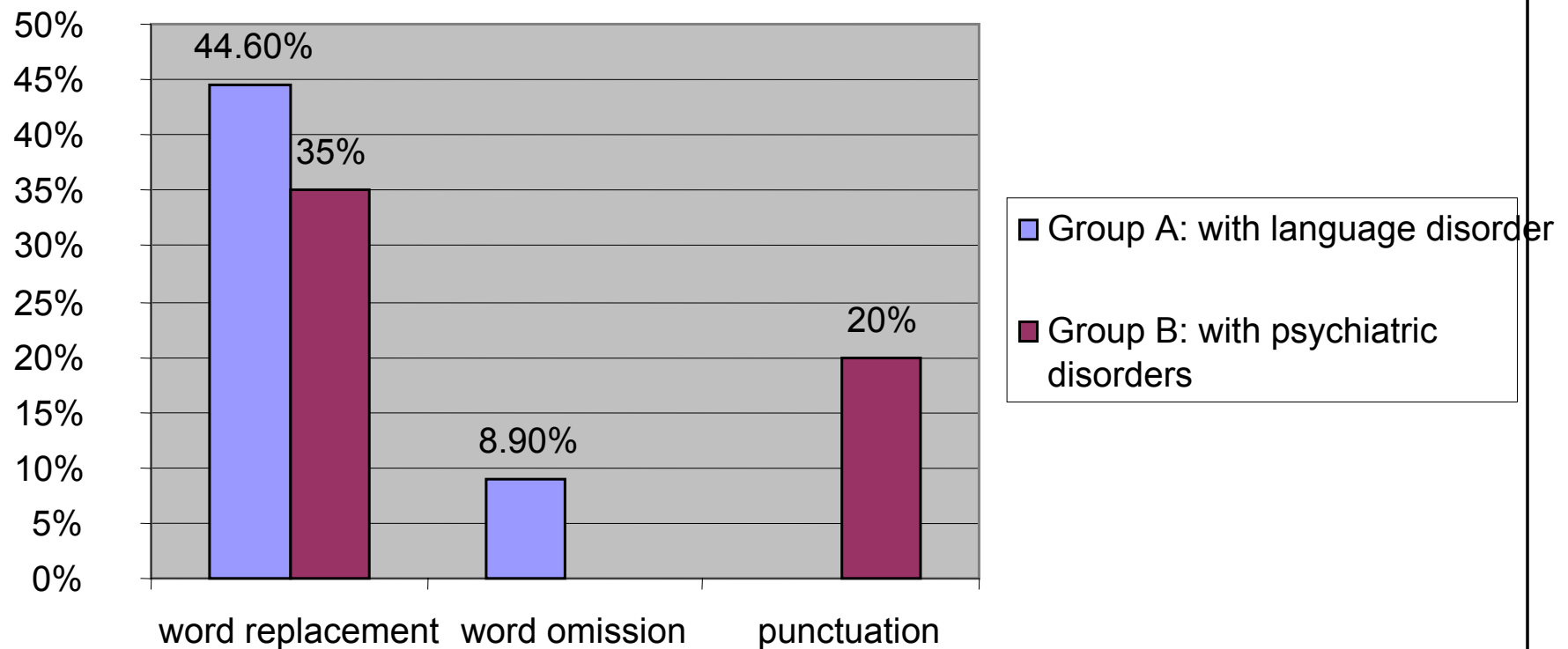


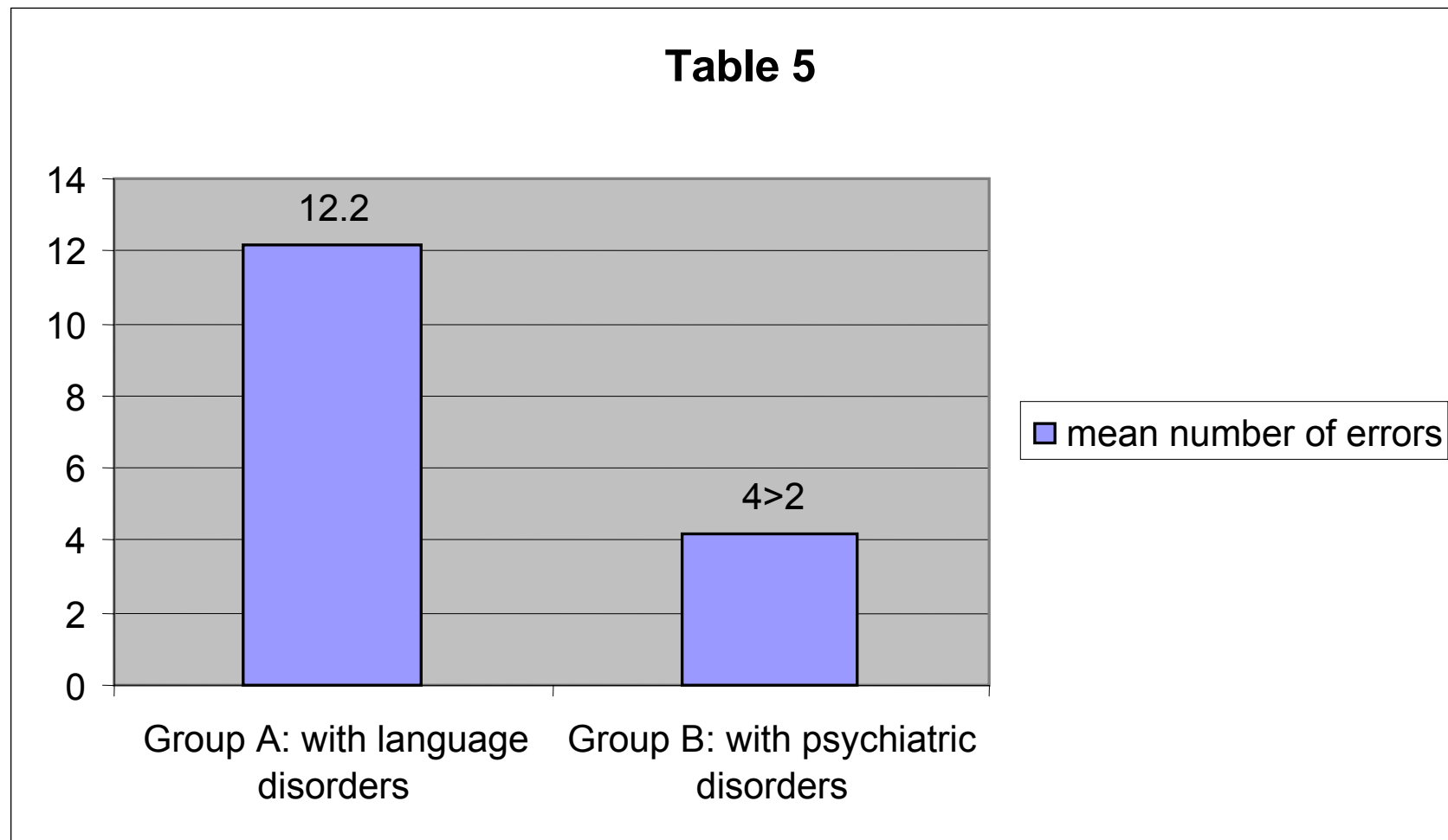
Table 4



4. Between group comparison concerning frequency of errors in writing.

Group A showed a Mean number of 12.2 errors.

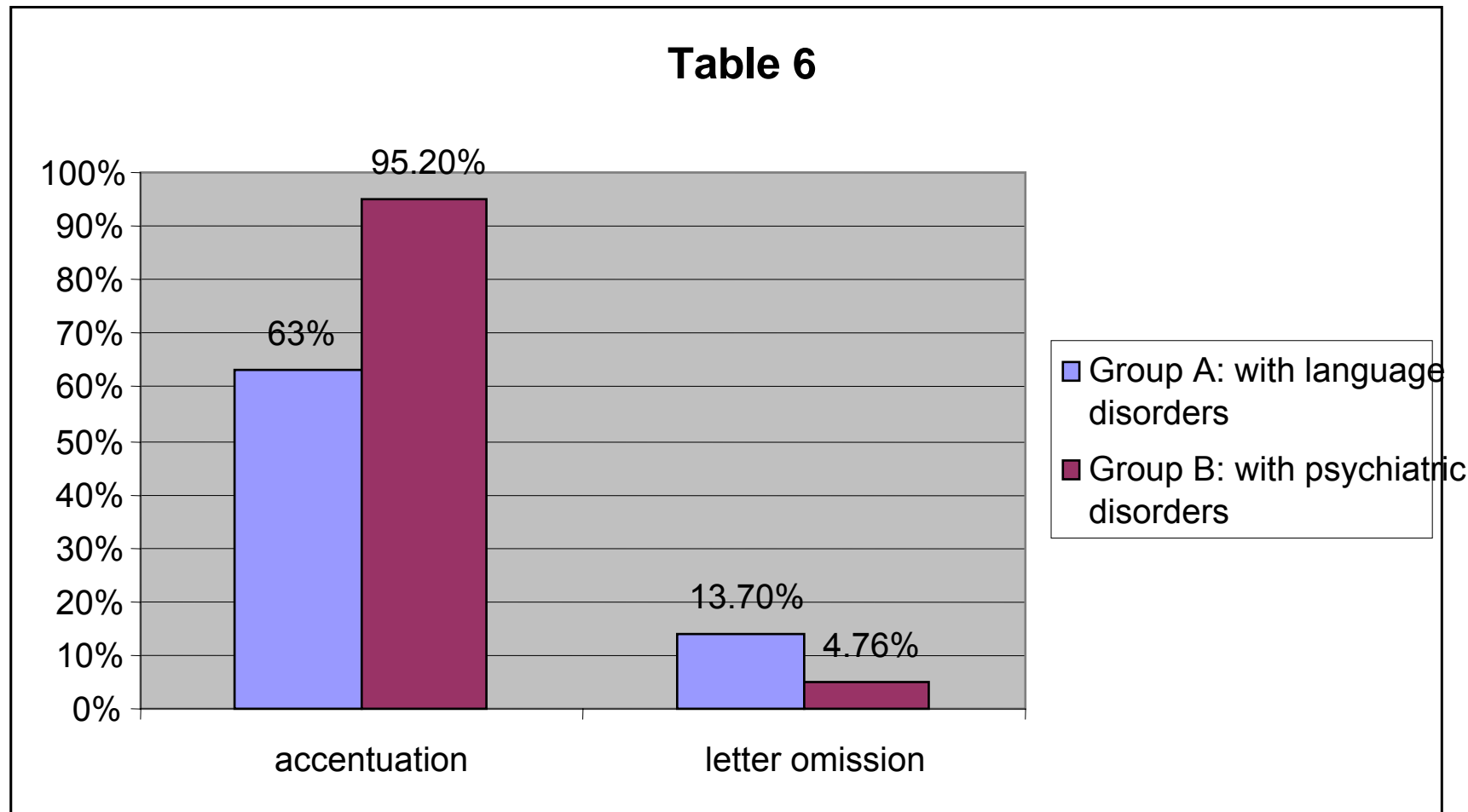
Group B showed a Mean number of 4.2 errors.



5. Between group comparison concerning types of errors in writing.

Group A showed most errors in accentuation (63%), and second to that letter omission (13.7%).

Group B also showed most errors in accentuation (95.2%) and in letter omission (4.76%)





Stress in Greek language

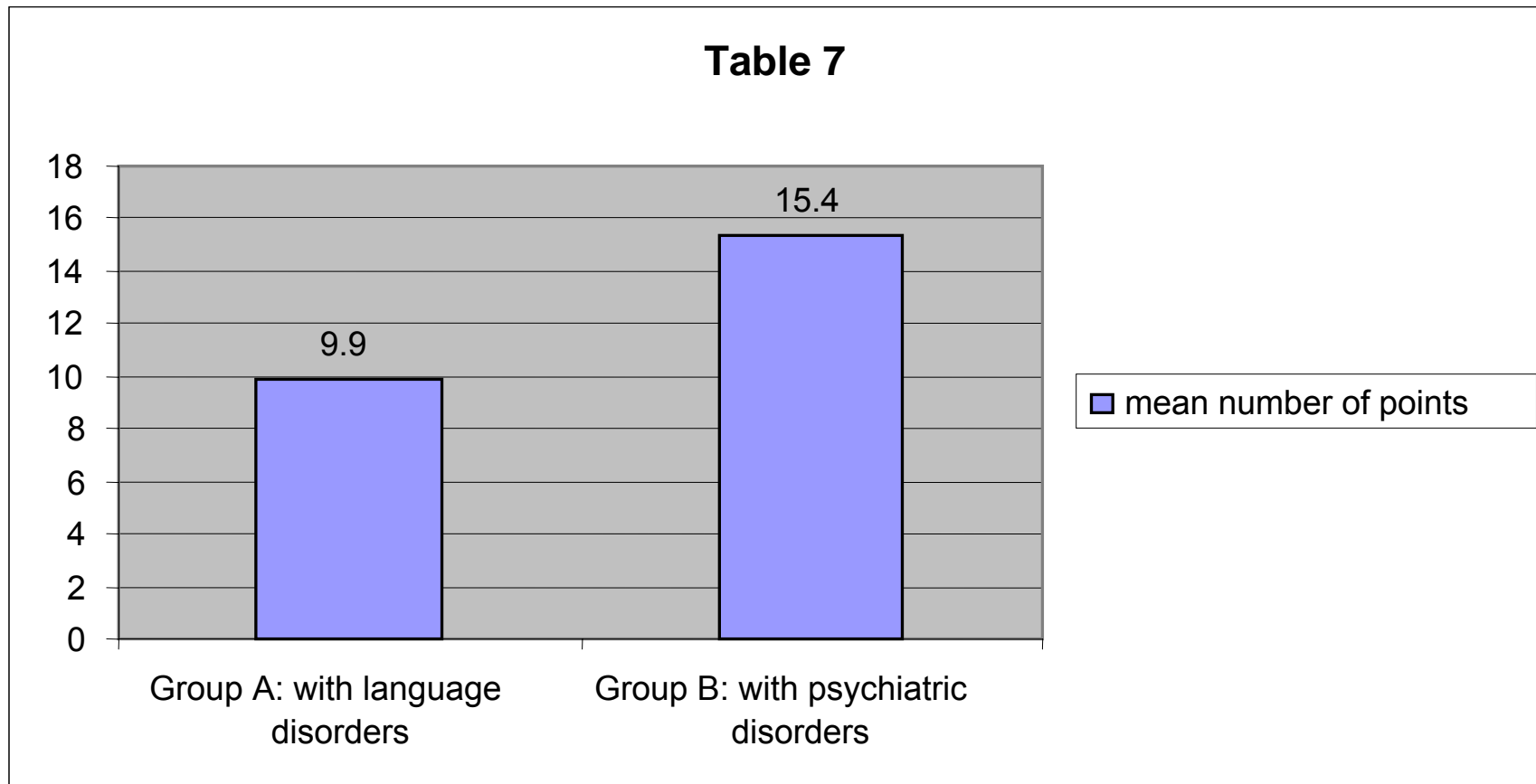
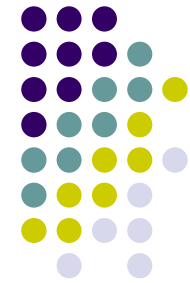
- In the Greek language every word, which is two syllables or more, takes a stress accent, for example: *Η γάτα κυνηγάει το ποντίκι*
- This accent is usually redundant, that is, it does not help in meaning
- But, written language is not acceptable without accents and their correct placement in the word (accentuation).

6. Between group comparison concerning reading comprehension

In reading comprehension, the individual was given a point for each correct answer. The total number of questions in this section was 4, with a maximum of 20 points.

Group A scored a Mean of 9.9 points.

Group B scored a mean of 15.4 points.

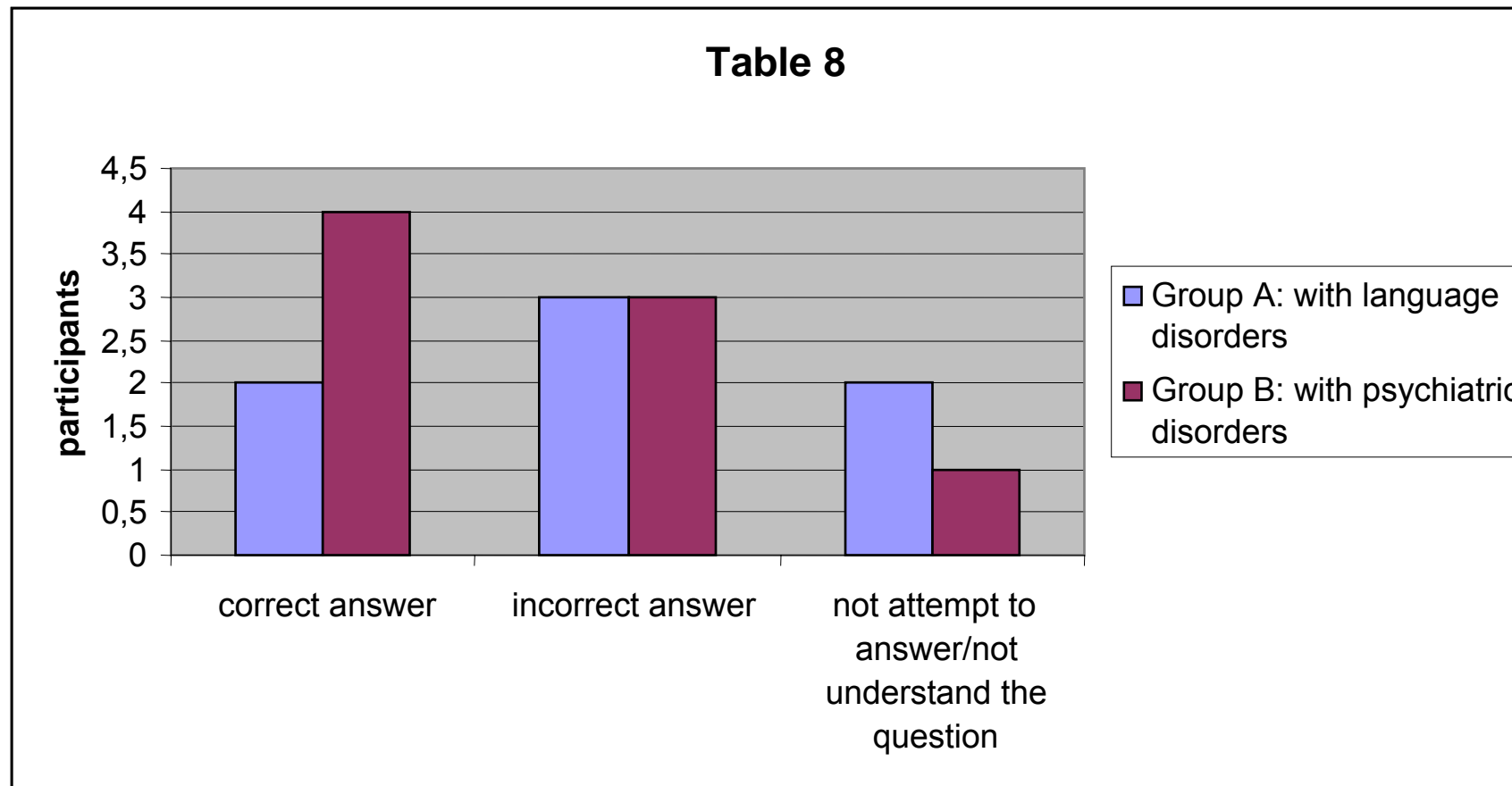
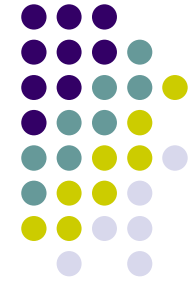


7. Between group comparison concerning mathematical reasoning.

In Group A, 2 participants gave a correct answer, 3 gave an incorrect answer and 2 did not attempt to answer / did not understand the question.

In Group B, 4 participants gave a correct answer, 3 gave an incorrect answer and 1 did not attempt to answer / did not understand the

question.





Discussion

Some interesting findings:

- The SLI group's performance in the literacy tasks was quite functional
- The psychiatric disorders group showed more difficulties than originally expected
- Reading times did not differ significantly between the two groups

Types of reading errors in SLI Group



- Word replacement
- Word omission

These errors appear to be related to:

1. difficulties in phonological processing
2. semantic and morphosyntactic difficulties

Types of reading errors in Group with psychiatric diagnoses



- They tend to replace words, which are phonologically alike
- They ignore punctuation
- These findings point to low semantic and syntactic processing abilities and poses questions about their phonological processing abilities

Common types of writing errors in both groups



1. Lack of accentuation
2. Letter omission

It is interesting to note that both groups show similar types of errors, even though they are not the same in frequency.

- Is this indicative of similar types of literacy difficulties in both groups?
- Is it indicative of similar underlying aetiologies?

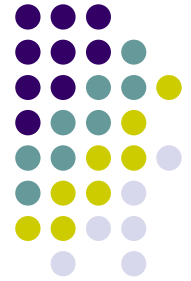
However a much larger sample would be needed in order to reach any conclusions.



Conclusions

- Our study confirms the importance of these types of longitudinal studies, since they may give very significant information about the most appropriate intervention measures, the nature of each disorder and their common characteristics, as well as the transformations that these disorders show over time.
- It is clearly apparent that any childhood disorder is rarely “cured”, but metamorphoses into a wide variety of overlapping or co-occurring conditions throughout a person’s life. For instance, it may lead to a lack of self-esteem, difficulties in social adjustment, career difficulties and poor quality of life.

Proposal



This study also highlights the importance of community services, which are comprised of comprehensive mental health services, and which would be an important agent to promote mental health well-being throughout a patient's life, from childhood to adulthood. In this way some of the more serious consequences of these disorders could possibly be prevented, through the long-term support of the patient and his family.

References



- Aram, D.M., & Hall, N.E. (1989). Longitudinal follow-up of children with preschool communication disorders: treatment implications. *School Psychology Review*, 18,4, 487-501.
- Cohen, N.J., Davine, M., Horodezky, N., Lipsett, L., & Isaacson, L. (1993). Unsuspected language impairment in Psychiatrically disturbed children: prevalence and language and behavioural characteristics. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 595-603.
- Stothard, S.E., Snowling, M.J., Bishop, D.V.M., Chipchase, B.B., & Kaplan, C.A. (1998). Language-impaired preschoolers: A follow-up into adolescence. *Journal of Speech, Language and Hearing Research*, 41, 407-418.
- Toppelberg, C.O., M.D., & Shapiro, T., M.D. (2000). Language Disorders: A 10-Year Research Update Review. *Journal AM. Acad. Child Adolesc. Psychiatry*, 2000, 39(2): 143-152.
- Willcutt, E.G. (2000). Psychiatric Comorbidity in Children and Adolescents with Reading Disability. *Journal of Child Psychology and Psychiatry*, 41,3, 1039-1048.



Σας ευχαριστώ για την προσοχή σας!

Thank you for your attention!