

Dyslexia and Comorbid Dyscalculia: rate of comorbidity and underlying cognitive and learning profile

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PURPOSE OF YOUR STUDY.

Children diagnosed with a specific learning disorder (SLD) have four to five times higher chances of developing a comorbid condition. In particular, the high prevalence of comorbid dyscalculia (MD) in children with dyslexia (RD) has been documented. Nevertheless, the exact rate of MD comorbidity and the causes underlying the overlap remain unclear since most research has focused on studying them in isolation. Given the relevance of early identification and evidence-based interventions for further compensation of SLD, there is a need for studies on this matter. The study intended to fill this gap.

METHOD.

The study was a secondary data analysis of the standardised test scores of 215 neuropsychological assessments administered to grade 1 to 3 schoolchildren in Argentina who had a prior diagnosis of RD. For the purposes of the study, they were classified into 2 groups (RD only and comorbid RDMD).

Scores were analyzed using SPSS Statistics to (i) explore the rate of MD comorbidity in children with RD; (ii) contrast the cognitive and learning profiles of the RD and the RDMD group; and (iii) assess the predictive value of each cognitive factor to the development of the RDMD comorbidity.

RESULTS AND CONCLUSION.

The study found that children with RD developed RDMD at a frequency of 33.5%. There was a significant difference in the two groups' learning and cognitive factors scores, with the comorbid group worst affected in all domains. Among these, verbal working memory,

spatial skills, semantic long-term memory and phonological awareness were the most sensitive predictors; together they could account for 35% of the MD comorbidity. These findings are evidence of the high incidence of MD comorbidity in the population with RD and highlight the predictive value of specific cognitive markers.