

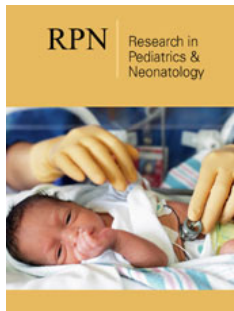
High Prevalence of Dyslexia in African-American Primary School Children

Laura Cassidy^{1*}, Bennett A Shaywitz² and Sally E Shaywitz²

¹Dyslexia Resource Center, Louisiana Key Academy, USA


²Yale Center for Dyslexia & Creativity, Department of Pediatrics, Yale University School of Medicine, USA

ISSN: 2576-9200



***Corresponding author:** Laura Cassidy, Dyslexia Resource Center, Louisiana Key Academy, Baton Rouge, Louisiana, USA

Submission:  February 09, 2024

Published:  February 16, 2024

Volume 8 - Issue 1

How to cite this article: Laura Cassidy*, Bennett A Shaywitz and Sally E Shaywitz. High Prevalence of Dyslexia in African-American Primary School Children. *Res Pediatr Neonatol.* 8(1). RPN.000679.2024. DOI: [10.31031/RPN.2024.08.000679](https://doi.org/10.31031/RPN.2024.08.000679)

Copyright© Laura Cassidy. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

Opinion

Evidence from several lines of investigation indicates that large numbers of African-American students with dyslexia may be overlooked in schools. Dyslexia is the most common neurodevelopmental disorder in children-epidemiological studies indicate that dyslexia is highly prevalent, affecting one in five [1,2], with boys and girls equally impacted [3]. Since its first description over a century ago [4] and now in recent United States federal legislation, dyslexia is defined as “an unexpected difficulty in reading for an individual who has the intelligence to be a much better reader, most commonly caused by a difficulty in the phonological processing (the appreciation of the individual sounds of spoken language), which affects the ability of an individual to speak, read and spell [5]”. The unexpected nature of dyslexia is supported by empirical data which indicate that in typical readers IQ and reading are linked while in dyslexic readers IQ and reading diverge [2,6]. Functional brain imaging studies from laboratories around the world demonstrate a neural signature for dyslexia: An inefficient functioning of those neural systems responsible for automatic fluent reading located in posterior regions of the left hemisphere [7,8]. Perhaps most importantly, we now know that the achievement gap between typical and dyslexic readers is evident as early as first grade and persists into adult life [9].

In a recent publication [10] we used a teacher completed dyslexia screener to first screen children in grades kindergarten through second grade in two inner city schools. Of the children screened, 90%, were African-American and 93% of the children screened were considered disadvantaged. Children were screened for dyslexia using an evidence-based screener [11] which follows the criteria for dyslexia screening in federal law 5. Almost half (49.2%) screened as at risk for and on more detailed testing the vast majority of those who screened as at risk were found to be dyslexic. Still another line of investigation indicating that large numbers of African American children with dyslexia are going undiagnosed comes from The National Assessment of Educational Progress (NAEP), data often referred to as the “Nation’s Report Card”. In the most recent iteration [12], fourth grade reading scores found 27% of white students reading below basic compared to 56% of black fourth graders. Good evidence indicates that students reading below basic on NAEP correspond to students with dyslexia [12]. Regardless of the underlying explanation for the high prevalence of reading difficulties in African-American children, our recent report coupled with the several decades of NAEP data provided good evidence that that large numbers of African-American students may have dyslexia and are currently not diagnosed and are being overlooked in school. These data mandate early screening (kindergarten to grade 3) for dyslexia and early implementation of evidence-based interventions for those children found to be at risk for dyslexia if the reading gap between African American children and their white peers is to be narrowed, and even eliminated.

Acknowledgement

Support for the work reported in this article was provided by: The Dyslexia Research Foundation and The Seedlings Foundation.

References

1. Ferrer E, Bennett AS, John MH, Karen EM, Reissa M, et al. (2015) Achievement gap in reading is present as early as first grade and persists through adolescence. *Journal of Pediatrics* 167(5): 1121-1125.
2. Ferrer E, Shaywitz B, Holahan J, Marchione K, Shaywitz S (2010) Uncoupling of reading and IQ over time: Empirical evidence for a definition of dyslexia. *Psychological Science* 21(1): 93-101.
3. Shaywitz SE, Shaywitz BA, Fletcher JM, Escobar MD (1990) Prevalence of reading disability in boys and girls: Results of the connecticut longitudinal study. *JAMA* 264(8): 998-1002.
4. Morgan WP (1896) A case of congenital word blindness. *British Medical Journal* 2(1871): 1378.
5. (US, 2018).
6. Shaywitz S, Shaywitz J (2020) *Overcoming dyslexia*. (2nd edn), p. 608.
7. Shaywitz BA, Sally ES, Kenneth RP, Einar MW, Robert KF, et al. (2002) Disruption of posterior brain systems for reading in children with developmental dyslexia. *Biological Psychiatry* 52(2): 101-110.
8. Richlan F, Kronbichler M, Wimmer H (2009) Functional abnormalities in the dyslexic brain: A quantitative meta-analysis of neuroimaging studies. *Human Brain Mapping* 30(10): 3299-3308.
9. Ferrer E, Shaywitz BA, Holahan JM, Shaywitz SE (2023) Early reading at first grade predicts adult reading at age 42 in typical and dyslexic readers. *NPJ Science of Learning* 8(1): 51.
10. Cassidy L, Reggio K, Shaywitz BA, Shaywitz SE (2023) Prevalence of undiagnosed dyslexia in African-American primary school children. *NPJ Science of Learning* 8(1): 51.
11. Shaywitz SE (2021) *Shaywitz dyslexia screen*. NCS Pearson Inc, USA.
12. White TG, Sabatini JP, White S (2021) What does "below basic" mean on NAEP reading? *Educational Researcher* 50(8): 570-573.