International Journal of Population Data Science

Journal Website: www.ijpds.org

Health and educational outcomes among adolescents with neurodisability in England: a population-based linked data study using ECHILD

Louise Macaulay[1], Jennifer Saxton[2], Tamsin Ford[2], Stuart Logan[3], Katie Harron[1], Ruth Gilbert[1], Julia Shumway[1], Vincent Nguyen[1], Bianca De Stavola[1], and Vaso Totsika[4]

[1]Great Ormond Street Institute of Child Health, University College London, London, United Kingdom

[2]Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

[3]NIHR Applied Research Collaboration South West Peninsula (PenARC), University of Exeter Medical School, University of Exeter, Exeter, United Kingdom

[4]Division of Psychiatry, University College London, London, United Kingdom

Background

Adolescents with neurodisability (neurological conditions causing functional limitations) have more complex needs than their peers, yet population-level evidence on secondary school outcomes remains limited.

Methods

Using linked health and education records from the ECHILD database, we developed a national cohort of Year 6 pupils (final year of primary school, ages 10–11) in state schools between 2007/08–2016/17. Neurodisability was identified from hospital and school records before Year 6. We described the proportion of pupils with Special Educational Needs and Disabilities (SEND) provision in Year 6, and examined planned and unplanned hospital admission rates and school absence rates (% of school sessions missed) from Year 6 through secondary school (Years 6–11, ages 10–16).

Results

Of 5,291,458 adolescents in Year 6, 226,689 (4.3%) had recorded neurodisability, 78% of whom had any SEND provision (versus 20% without neurodisability). One-quarter had intensive local government-funded provision. Between Years 6–11, adolescents with neurodisability had 5 times higher planned admission rates (19.8 vs 3.7 per 100 person-years), 3 times higher unplanned rates (9.7 vs 3.8 per 100 person-years), and 2 times higher stress-related rates (2.5 vs 1.3 per 100 person-years) compared with peers. Overall absence rates were 7.2% versus 5.4% for peers, increasing over time and driven by authorised absences (5.8%, mostly health-related). Unauthorised rates were comparable (1.2–1.4%). Girls had consistently higher admission and absence rates than boys.

Conclusion

Adolescents with neurodisability experience substantially greater health and educational challenges. Linked administrative datasets can inform targeted and integrated support from secondary school transition onward.

https://doi.org/10.23889/ijpds.v11i5.3593