

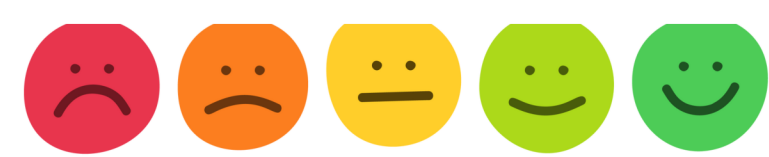
Clinical characteristics of children with neurodevelopmental disorders and co-occurring epilepsy

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Background

Around 7% of children and youth with neurodevelopmental disorders (NDDs) have epilepsy¹



Youth with NDDs are also at an increased risk for mental health challenges and crises²



Co-occurring epilepsy can complicate mental health treatments and outcomes in youth with NDDs

Research Question

How do children with NDDs and co-occurring epilepsy compare to those without epilepsy in terms of mental health and behavioural treatments and outcomes?

Methods

1 Designed survey to collect demographic, clinical, & environmental data from patients of Holland Bloorview's psychopharmacology clinic



2 Collected longitudinal data from 110 patient charts



3 Extracted data and used chi-squared and t-tests to analyze differences in epilepsy vs non-epilepsy groups



4 Used cox proportional hazards model to identify predictors of new mental health crises



An epilepsy diagnosis may impact mental health treatments and outcomes in children and youth with neurodevelopmental disorders



Link to Holland Bloorview's Autism Research Centre home page

Holland Bloorview
Kids Rehabilitation Hospital

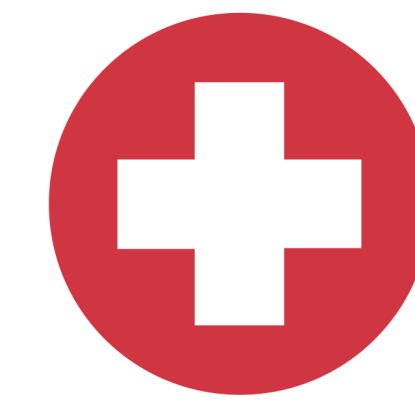
Results

18.2% of psychopharmacology clinic patients have epilepsy

An epilepsy diagnosis correlated with:



lower mean psychotropic medication trials at intake (mean = 0.55 vs 1.02, p = 0.1)



potential protective affect against incidence of mental health crises (Hazard ratio = 0.46 (0.19 to 1.12), p = 0.09)



significantly higher mean of current supports (ex. OT, behaviour therapy) (mean = 1.5 vs 0.9, p = 0.02)

Conclusion

Youth with NDDs & epilepsy may have different mental health treatment courses and outcomes than those without epilepsy.

Next Steps

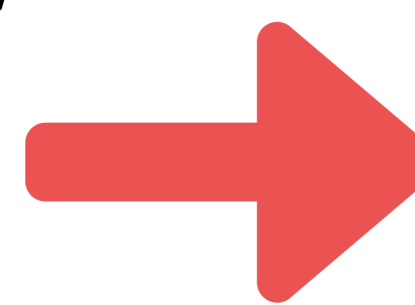
Expand sample to 377 unique patients

Conduct multivariate analyses

Use results to improve patient treatments outcomes

Relevance

Better understanding of how epilepsy and NDDs impact mental health treatments/outcomes



More personalized and preventative mental health treatment approaches for HB patients & families

References

- Liu, X., Sun, X., Sun, C., Zou, M., Chen, Y., Huang, J., Wu, L., & Chen, W.-X. (2021). Prevalence of epilepsy in autism spectrum disorders: A systematic review and meta-analysis. *Autism*, 26(1), 33–50. <https://doi.org/10.1177/13623613211045029>
- Vasa, R.A., Hagopian, L. and Kalb, L.G. (2020), Investigating mental health crisis in youth with autism spectrum disorder. *Autism Research*, 13, 112-121. <https://doi.org/10.1002/aur.2224>

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