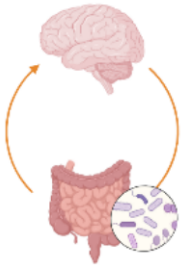
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Department of Infant, Child, Adolescent and Young Adult Psychiatry
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Role of the gut-brain axis in ADHD: Exploring the links between gut microbiota, cognition and symptomatology

Statistical analysis plan

Gut microbiota (MBI) – ADHD

Document in English (original)

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Sponsor	Hôpital Erasme – Hôpital Universitaire de Bruxelles (HUB)
Ethics Committee approval	CCB B4062025000026 – Ethics Committee, Hôpital Erasme, Brussels

Statistical analysis

Statistical analyses will be performed using R software (version [4.6.1], R Core Team). Variables will be described as mean and standard deviation, or as median and interquartile range in the case of skewed distributions.

The normality of the distribution of [variable of interest] will be assessed in each of the two groups using the Shapiro-Wilk test and visual inspection of quantile-quantile (Q-Q) plots.

The comparison between the [ADHD] group and the control group will be performed using Welch's independent-samples t-test, which does not assume equal variances. In the event of a marked departure from normality, the non-parametric Mann-Whitney U test (Wilcoxon rank-sum test) will be used instead. Results will be expressed as the difference in means between the two groups, together with its 95% confidence interval and an effect size estimate (Cohen's d).

All tests will be two-sided, and a p-value < 0.05 will be considered statistically significant.