

Supplemental Information

POWER ANALYSIS

T TEST

An identifiable effect size defined by Cohen at a 0.5 SD would require 128 participants for power levels equal to 80% when using an α level of 5% for a 2-tailed test.³¹ Consequently, the sample size of $n = 500$ was associated with ample power to identify at least small-to-medium effects. For testing the effects of genetic testing groups on nominal variables, we conducted a series of χ^2 tests. Power estimation of the χ^2 tests indicated that medium effect sizes (ie, Cohen $w = .30$) were achieved with 108 participants in a 2×3 design, by using a nominal α level of 5% and power levels equal to 80%. Within the group of children who completed testing ($n = 299$), we then used one-way analyses of variance to compare demographic, medical and neuropsychological characteristics among 3 groups of children differentiated by genetic findings (negative or normal versus variants of unknown significance versus pathogenic findings). A sample size of 156 participants provides sufficient power for the analyses of variance to detect at least medium effect sizes in the form of a 0.5 difference in standardized form between any 2 means by using a 5% level of significance, two-tailed, and power levels equal to 80%. Thus, the actual sample size of 299 participants reveals at least medium effect sizes for differences in the 3 groups.

χ^2 TEST

For the χ^2 test, a power analysis for a medium effect size of $w = .3$, at an α level of 5% for a 2-tailed test pointed that a sample size of 88 participants would suffice for power levels of 80%. Consequently, with the present sample size, power levels were in excess of 99%.

MISSING DATA ESTIMATION

To evaluate the potential misrepresentation of individuals on the 2 groups of interest, with and without genetic testing a series of χ^2 tests were employed with the first grouping variable being genetic testing (or not) and the second presence or absence of missing data. Results per dependent variable are shown in the table below.

Variable	χ^2 Test	<i>P</i>
Bayley cognitive standard score	2.528	.11
Bayley language standard score	1.741	.19
Bayley motor standard score	0.791	.37
Vineland adaptive behavior composite	0.747	.39
Vineland communication standard score	0.191	.66
Vineland motor standard score	0.180	.67
Vineland socialization standard score	0.022	.88