

Understanding Anxiety in Students with 504/IEP Plans

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INTRODUCTION

Previous research using data from the National Project on Achievement in Twins (NatPAT) found that students with 504 or IEP accommodation plans report significantly higher levels of general and reading anxiety compared to students without accommodations. However, it remains unclear whether these differences are from executive functioning difficulties, stress, school environment or from accommodation status itself.

The present study will extend prior findings by examining executive functioning, perceived stress, resilience, additional impairment status, and school social environment in relation to anxiety. These factors may be potential explanations for elevated anxiety among students with accommodation plans. Identifying both risk and protective factors may help clarify why these students experience higher anxiety levels.

METHODS

Data will be drawn from the National Project on Achievement in Twins (NatPAT), which includes 1,140 twin participants, including 222 students with 504 or IEP accommodation plans. The dataset includes measures of executive functioning, perceived stress, resilience, school social environment, anxiety outcomes, family stressors, and additional impairment status (e.g., ADHD, ASD).

PREVIOUS ANALYSES

- The Welch's t-test reveals a statistically significant difference in general anxiety levels between the No IEP/504 Plan Group ($M = 4.99, SD = 3.95, n = 918$) and the IEP/504 Plan Group ($M = 6.01, SD = 4.79, n = 222$), $t(297.84) = -2.93, p = 0.004$. The group with 504/IEP Plans reported significantly higher general anxiety levels (Cohen's $d = -0.23$).
- The Welch's t-test reveals a statistically significant difference in reading anxiety levels between the No IEP/504 Plan Group ($M = 24.38, SD = 10.83, n = 918$) and the IEP/504 Plan Group ($M = 27.57, SD = 14.25, n = 222$), $t(285.67) = -3.12, p = 0.001$. The group with 504/IEP Plans reported significantly higher reading anxiety levels (Cohen's $d = -0.25$).

HYPOTHESES

- H1. Students with 504/IEP accommodation plans will demonstrate greater executive functioning difficulties and higher levels of stress compared to students without accommodations.
- H2. Executive functioning deficits and stress will positively predict anxiety levels.
- H3. Resilience and positive school social environments will weaken the association between executive functioning difficulties and anxiety.

MANOVA: Wilks Test

Cases	df	Approx. F	Wilks' Λ	Num df	Den df	p
(Intercept)	1	2691.590	0.174	2	1133.000	< .001
504/IEP Plan?	1	8.439	0.985	2	1133.000	< .001
Residuals	1134					

Independent Samples T-Test

	t	df	p	Cohen's d	SE Cohen's d
Reading Anxiety Score	-3.142	286.041	< .001	-0.254	0.075

Note. For all tests, the alternative hypothesis specifies that group *No Plan* is less than group *Has a 504/IEP Plan*.

Note. Welch's t-test.

Independent Samples T-Test

	t	df	p	Cohen's d	SE Cohen's d
Childhood Anxiety Scale Score	-2.926	298.509	0.002	-0.231	0.075

Note. For all tests, the alternative hypothesis specifies that group *No Plan* is less than group *Has a 504/IEP Plan*.

Note. Welch's t-test.

PLANNED ANALYSES

Hierarchical regression analyses will be conducted to determine whether executive functioning deficits, perceived stress, and school social environment predict anxiety after controlling for family stressors, psychological distress, and additional impairments. Moderation analyses will then test whether resilience buffers the relationship between these predictors and anxiety.

IMPLICATIONS

By identifying both risk and protective factors, this study will provide a more functional evaluation of accommodation status without making causal claims. Findings may inform school-based interventions focused on strengthening executive functioning deficits and resilience-building strategies for students with accommodation plans.

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