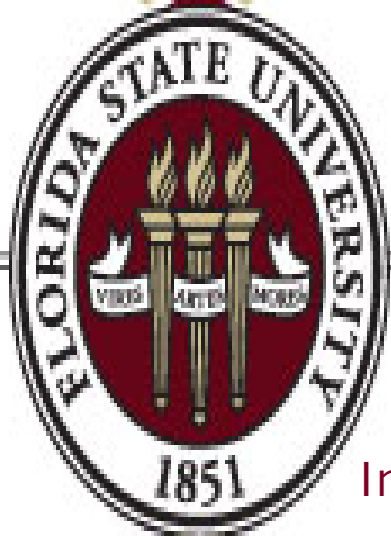


Are relations between ADHD symptoms, ASD symptoms, and academic difficulties mediated by social problems?

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Introduction

- ADHD and ASD have significant overlap in clinical symptoms and functional impairments
- Specifically, social dysfunction is a core diagnostic feature of ASD and is also a common area of impairment for 50-80% of children with ADHD (deBoo & Prins, 2006)
- Additionally, both groups of children commonly have difficulties with academic productivity and success
- Research has shown relations between social problems and academic performance in typically developing children (cf. Wentzel, 2005)
- However, few studies have examined this in clinical samples, particularly in the context of ADHD and ASD symptoms

Research Question

How do social problems mediate the relation between ADHD and ASD symptoms and academic performance?

Methods

Participants

- 135 children (53 girls), ages 8-13 (M = 10.18, SD = 1.46)

Measures

- Behavior Assessment Scale for Children-2 (BASC-2) Social Skills Subscale
- Social Skills Improvement System (SSIS) ADHD and ASD Problem Behavior Subscales
- Academic Performance Rating Scale (APRS)

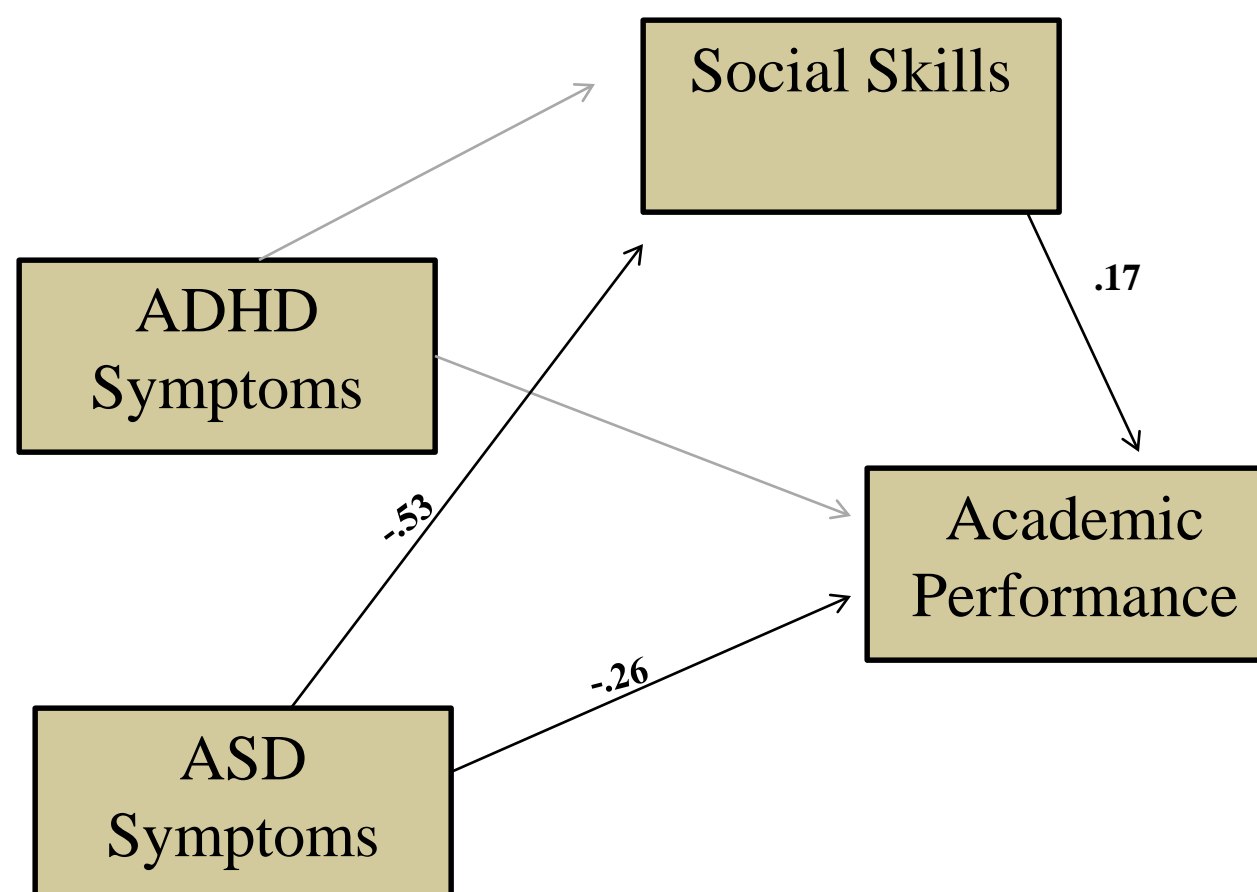


Table 1. Impact of Teacher-Reported ADHD Symptoms, ASD Symptoms, and Social Skills on Academic Performance (N = 144)

Total Effect	Academic Performance		
	β	SE	p
ADHD Symptoms → Academic Performance	-.19	.10	.057
ASD Symptoms → Academic Performance	-.35**	.10	.002
Direct Effects			
ADHD Symptoms → Social Skills	-.06	.10	.50
ASD Symptoms → Social Skills	-.53**	.09	< .0005
Social Skills → Academic Performance	.17	.09	.048
ADHD Symptoms → Academic Performance	-.18	.10	.06
ASD Symptoms → Academic Performance	-.26*	.11	.02
Indirect Effects (through mediator)			
ADHD → Social Skills → Academic Performance	-.01	.02	.35
95% CI of Bootstrap	-.07 to -.01		
Effect Ratio (95% CI)	.05		
ASD → Social Skills → Academic Performance	-.09*	.048	.037
95% CI of Bootstrap	-.20 to -.01		
Effect Ratio (95% CI)	.26		
Model Summary			
	R^2	p	
	.27**	.001	

bias-corrected bootstrapping was used for all analyses. Paths labels reflect standard lature (cf. Fritz & MacKinnon, 2007); c and c' reflect the total and direct effect of and ASD symptoms on academic performance before and after accounting for social spectively; * $p < .05$, ** $p < .01$.

Results

- ASD, but not ADHD symptoms significantly predicted social skills deficits, as well as lower academic achievement
- The direct effect of social skills on academic performance was significant, and the indirect effect was significant for ASD symptoms
- The direct effects of ASD symptoms on academic performance remained significant with social skills included in the model

Conclusion

- Interestingly, just ASD symptoms had a significant indirect effect on academic performance, mediated by social skills
- Contrary to previous studies, ADHD symptoms did not directly predict social skills (deBoo & Prins, 2007) or academic performance (Daley & Birchwood, 2010)
- Some limitations include the reliance on teacher report of children's symptoms and the correlational nature of the study
- Future studies should use parent and teacher measures to assess child behavior, and use multiple measures to assess each construct

References

- Daley, D., & Birchwood, J. (2010). ADHD and academic performance: why does ADHD impact on academic performance and what can be done to support ADHD children in the classroom?. *Child: care, health and development*, 36(4), 455-464.
- de Boo, G. M., & Prins, P. J. (2007). Social incompetence in children with ADHD: Possible moderators and mediators in social-skills training. *Clinical Psychology Review*, 27(1), 78-97.
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