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Do parental ADHD Symptoms Reduce the Efficacy of Parent Training for Preschool ADHD? A Secondary Analysis of a Randomized Controlled Trial

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Abstract

Previous studies have suggested that children with Attention-Deficit/Hyperactivity Disorder (ADHD) may benefit less from behavioral parent training (BPT) if their parents have high levels of ADHD symptoms. We conducted a secondary analysis of data from a randomized controlled trial to test the hypothesis that parental ADHD symptoms reduce the efficacy of two BPT programs in a sample of preschoolers with ADHD. One intervention was specifically designed for children with ADHD (NFPP: New Forest Parenting Programme) and one was designed for children with Oppositional Defiant Disorder (ODD) (HNC: Helping the Noncompliant Child). Neither intervention was adapted to address parental ADHD symptoms. This secondary analysis included data from 164 parents and their 3–4 year-old children who were randomly assigned to

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Compliance with Ethical Standards

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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one of the two programs or a waitlist group. Children were compared on ADHD and ODD outcomes at post-intervention and a 6-month follow-up. The presence of parent ADHD symptoms reduced the efficacy of BPT in only one of 16 analyses. Implications and limitations (e.g., low baseline rate of parental ADHD symptoms) of the findings are provided.

Keywords

Parent training; ADHD; moderation; parental ADHD symptoms

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by inconsistent attention, excessive activity, and impulsive behaviors (Nigg & Barkley, 2014). Symptoms often emerge during the preschool years (e.g., National Center for Health Statistics, 2011/2012) and remain relatively stable across development (e.g., Riddle et al., 2013). Behavioral parent training (BPT) is currently recommended as an important element of multi-modal treatment for ADHD (Subcommittee on Attention-Deficit/Hyperactivity Disorder, 2011), particularly for preschool children. Based on the principles of social learning theory, this treatment approach has a long history of utilizing adult figures, such as parents, to increase positive behaviors and reduce problematic child behaviors (Fabiano, Pelham, Coles, Gnagy, Chronis-Tuscano, & O'Connor, 2009; McMahon & Forehand, 2003).

Although a recent meta-analysis of randomized controlled trials (RCTs) suggests that BPT can be a valuable component in the treatment of ADHD (Daley et al., 2014), limited prior work has identified factors that moderate its effects on child outcomes (Fabiano et al., 2009). Such information is especially important in guiding attempts to either target treatments to those for whom it would be most valuable or modifying treatments to overcome barriers to efficacy. Because caregivers play a central role in the delivery of BPT (Fabiano et al., 2009; McMahon & Forehand, 2003), parental characteristics have received the most attention in prior research on BPT efficacy (e.g., Lundhal et al., 2006; Reyno & McGrath, 2006) and are emerging as a topic of interest in the ADHD literature. In particular, parental mental health problems have been noted as a potential barrier to BPT effectiveness as approximately 40% of parents of children with ADHD also have elevated ADHD symptoms (Wang et al., 2014). These parental symptoms can compromise BPT efficacy as a treatment for ADHD by interfering with parents' learning and implementing behavioral management skills taught in these programs (e.g., Wang et al., 2014).

To our knowledge, four studies to date have examined the effects of parental ADHD symptoms on the outcome of BPT. Three studies examined child ADHD symptoms as an outcome. Two of these studies found that children with parents who have high levels of parental ADHD symptoms benefited less from BPT with regard to their ADHD symptoms (Jensen et al., 2007; Sonuga-Barke, Daley, & Thompson, 2002; but not Van den Hoofdakker et al., 2010). Three studies examined child disruptive behaviors as an outcome. One of these studies (Chronis-Tuscano et al., 2011; but not Jensen et al., 2007; Van den Hoofdakker et al., 2010) found children whose parents have high levels of ADHD symptoms benefited less from BPT in regard to their conduct problems. However, only two studies (Jensen et al.,

2007; Van den Hoofdakker et al., 2010) included a control group, an essential arm if one wants to infer a casual moderating role for parental ADHD. Neither of these studies supported such an inference. In sum, the evidence is limited for parental ADHD symptoms moderating BPT treatment outcome.

The current study was a secondary analysis of a previously reported RCT (Abikoff et al., 2015) comparing the efficacy of two BPT versions: the New Forest Parenting Program (NFPP; Sonuga-Barke et al., 2002; Thompson et al., 2009) and Helping the Noncompliant Child (HNC; McMahon & Forehand, 2003). The two programs have been found to be equally effective (and more effective than a waitlist control) in reducing child ADHD symptoms and, with one exception, measures of child disruptive behavior (Abikoff et al., 2015). In this study we extended the earlier study by examining if the presence of parental ADHD symptoms reduced the efficacy of BPT for children with an ADHD diagnosis and whether any effects were specific to the active treatments compared to a wait list control arm (i.e., do parental ADHD symptoms have a specific moderating role?).

Our predictions were as follows. First, based on the overall similarities between the two BPT treatments in terms of learning and implementing specific parenting skills, (not withstanding the content of the two interventions), we expected the moderating role of the effects of parental ADHD symptoms to be similar across the two treatments with higher levels of symptoms forecasting less effective outcomes. Second, we expected the effects to be similar for child ADHD symptoms and oppositional defiant behaviors (ODD). Third, given the causal status of our hypothesis, we expected that, if support for moderation emerged, the effects would appear within the context of comparisons of each BPT intervention to the control condition.

Method

Complete details of the Methods are available in Abikoff et al. (2015).

Design

In a three-group parallel design, children were randomly assigned to (a) NFPP, (b) HNC, or (c) waitlist (see Abikoff et al., 2015, for details). Block randomization to the three treatment conditions (NFPP, HNC, WL) was in a ratio (2:2:1) and was carried out in blocks of random sizes (5 or 10). All three groups were assessed at pre-treatment (PRE) and post-treatment (POST). Only the two parent training groups were assessed again at a 6-month follow-up (FU).

Participants

Participants were 164 boys and girls (ages 3.0 – 4.11) attending a preschool, daycare, or nursery school at least two-and-a-half days a week. Inclusion criteria included: English fluency of the primary caretaker; and the child had an IQ ≥ 70 and a diagnosis of ADHD. The diagnosis was based on the Diagnostic Interview Schedule for Children-Parent Report Version 4 (Shaffer, Fisher, & Lucas, 1998), modified Young Child Version (DISC-IV-YC) (Lucas, Fisher, & Luby, 1998), and was confirmed by clinical evaluation conducted by a

clinician with child and parent. Reasons for exclusion included current medication or behavioral treatment for ADHD (see Abikoff et al., 2015, for further exclusions).

Measures

Parent global psychopathology—The 53-item Global Severity Index (GSI) of the Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982) was used to measure overall parent psychological distress level across the following domains: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. Parents self-rated each item on a 5-point Likert scale, ranging from 0 = not at all to 4 = extremely. The BSI's reliability, validity, and utility have been tested in 400 research studies. For the current study a sum score was utilized in analyses. The alpha coefficient was .96.

Parental ADHD symptoms—The symptom assessment of the Assessment of Adult Attention-Deficit/ Hyperactivity Disorder (AAA) semi-structured clinical interview was used to assess parent inattentive (9 items) and hyperactivity/impulsivity (9 items) symptoms (see Mannuzza, Klein, & Castellanos, 2004). Each behavior (e.g., is forgetful in daily activities, talks excessively) is rated on a 0 (never or rarely) to 3 (very often) scale by clinicians. Reliability for assessing parental ADHD has been excellent in previous studies (kappas greater than .75; Mannuzza, Castellanos, Roizen, Hutchison, Lashua, & Klein, 2011) and there is substantial support for validity of diagnoses (e.g., children diagnosed with ADHD (vs. controls) are more likely to have an ADHD diagnosis in adulthood based on the AAA; Klein et al., 2012). Interviewers in the current study were trained by the developers of the AAA. A total score of symptoms, combining the inattention and hyperactivity/impulsivity domains, was used in analyses. In the current sample the alpha coefficient was .89 for the total score.

Child ADHD and ODD symptoms—Child ADHD and oppositional defiant (ODD) symptoms were assessed by parent and teacher ratings on the Conners Rating Scales - Revised (CRS-R; Conners, Sitarenios, Parker, & Epstein, 1998), which has adequate psychometric qualities and has been validated with samples that include preschool children. For the current study, the total ADHD (combined Hyperactivity/Impulsivity and Inattention symptoms) and ODD subscales were used. The alpha coefficients ranged from .82 to .94 across informants and assessments in the current sample.

Interventions

New Forest Parenting Programme (NFPP; Sonuga-Barke et al., 2002; Thompson et al., 2009)—The NFPP is a manualized intervention for preschoolers with ADHD, involves eight weekly 1-to-1.5-hour sessions, and is delivered in the family home. NFPP focuses on key issues related to a child with ADHD's self-regulation ability and relies on the parent as the primary agent of change. While it shares a number of features with standard BPT (e.g., targets the defiant behaviors through changing the parent-child relationship), it has a number of distinctive features. First, NFPP educates parents to alter their views of ADHD, avoid blaming their child for ADHD symptoms, and increase parental tolerance with the ultimate goal of improving the quality of the parent-child relationship.

Second, NFPP aims to improve four elements of constructive parenting: Scoping, Extending, Scaffolding, and Consolidation (see Thompson et al., 2009, for further details).

Helping the Noncompliant Child (HNC; McMahon & Forehand, 2003)—HNC is a manualized BPT intervention for treating young children with noncompliance and oppositional problems. The individualized, clinic-based treatment is delivered by therapists with the parent and child jointly in each session. The clinical provision of HNC typically averages 8–10 intervention sessions (McMahon & Forehand, 2003). To ensure that NFPP and HNC were equated for length and amount of therapist contact, HNC was delivered in eight weekly, 1-hour sessions. HNC was provided based on the McMahon and Forehand (2003) treatment manual, *except* that meeting behavioral criteria for advancement from one parenting skill to the next was not required.

Treatment Delivery

Therapists ($N=5$) were clinical psychologists with at least two years of behavior therapy experience with children and families. To control for possible therapist effects, each therapist provided both treatments (see Abikoff et al., 2015, for therapist training, supervision, and treatment fidelity procedures). Attendance was equally high for each treatment [NFPP, $M = 7.40$; HNC, $M = 7.73$]. Treatment fidelity was high (NFPP: 96.3%; HNC: 96.9%) and contamination was low (0.6% of assessed NFPP and HNC sessions).

Data Analytic Plan

Mplus 7.31 software (Muthén & Muthén, 2012) was used to conduct primary analyses. To account for missing data and non-normality in outcomes, full information maximum likelihood estimation with robust standard errors was used for inclusion of all available data. To assess for changes in child ADHD symptoms and ODD symptoms, we utilized parallel process latent change score (LCS) models. Of relevance to our main research questions, the flexibility of LCS allows for a simultaneous analysis of the predictors of individual differences in the initial level of and subsequent changes in children's symptoms similar to a latent growth curve model (McArdle, 2009). Further, we were able to use parallel process LCS models to include change in child ADHD and ODD symptoms in the same model. The LCS models used in the current study differ from and are not subject to the methodological limitations associated with models using observed or algebraic difference scores (see Laird & De Los Reyes, 2013). Specifically, LCS models retain the component variables separately and impose a theoretically guided model relating these components to an outcome (McArdle, 2008).

Figure 1 displays the general guiding LCS model that includes predictors of the initial level of and change in child ODD and ADHD symptoms. All models include parent general psychopathology severity as a covariate to ensure moderating effects of parental ADHD symptoms could not be attributed to more general parental psychopathology. Further, all models regressed initial level of child symptoms on all predictors in order to account for any associations at baseline. Finally, by inclusion of both child ADHD symptoms and ODD symptoms in each model, the unique effects of the predictor of interest (i.e., the interaction between parental ADHD symptoms and treatment condition) on *each* category of symptoms

could be examined. The main effect of treatment condition on outcomes is not discussed as these results have been previously reported (Abikoff et al., 2015). Primary analyses evaluated parent reported child ADHD and ODD symptom outcomes, followed by secondary analyses, which examined teacher report of child symptoms. Lastly, separate models were tested for the three treatment condition comparisons (i.e., HNC vs. WL, NFPP vs. WL, and NFPP vs. HNC) on outcomes at post and then for the active treatment comparison at follow-up (as the WL received an intervention between post and follow-up). In all, eight models were estimated – four models for four treatment comparisons by two reporters (see Table 1 for the list of models) with child ADHD and ODD in each model.

Results

Sample

Parents and children who participated in the NFPP ($N = 67$) and HNC ($N = 63$) interventions and the waitlist control ($N = 34$) served as participants. Eight dropped out from NFPP (11.9%), four from HNC (6.3%), and one from the waitlist group (2.9%), but all were included in analyses. (See Abikoff et al., 2015, for the CONSORT diagram and complete sample details).

The children in the sample were 74.6% male, 68.3% White, 14.6% Black, 9.8% Asian, and 7.3% other; 26.9% of the children were Hispanic. DSM-IV ADHD subtype diagnoses of children were 50.8% Combined, 33.8% Hyperactive/Impulsive, and 14.6% Inattentive. 73% of mothers and 60.5% of fathers were college graduates. The primary caregivers and informants were predominantly mothers (94%). No child started medication between pre to post-treatment assessment. At FU, three children in each intervention arm had started medication. There were no significant treatment program group differences on any demographic or clinical variables (including parent ADHD symptoms and global psychopathology).

Preliminary Analyses

As a prior secondary analysis study indicated that the presence of child ODD symptomatology affected treatment efficacy (Forehand et al., 2016), we initially examined if the number of child ODD symptoms related to parent ADHD symptoms. Child ODD symptoms were not related to parental ADHD symptoms ($p > .05$) and, thus, were not considered further. The means for parental ADHD symptoms and BSI global psychopathology were 7.67 ($SD = 8.76$, range 0–41, possible range 0 – 54) and 16.75 ($SD = 18.75$, range 0–121, possible range 0 – 212), respectively, with the latter approximating the mean for a normative sample ($M = 15.90$) (Derogatis & Spencer, 1982).

Primary Analyses

LCS model fit statistics are presented in Table 1. Models evidenced acceptable to good fit across outcome informants with the exception of the active treatment comparison models at follow-up (this is expected given that all predictor effects were non-significant in these models). The unstandardized estimates and 95% confidence intervals for all models at Post and at F/U across both informants are presented in Table 2.

Parent reported outcomes—Of the eight possible interactions between parent ADHD symptoms and intervention condition, the only significant interaction was for change in child ODD symptoms from baseline to post for model 2 (i.e., NFPP vs. WL comparison model). Figure 2a illustrates the form of the interaction by depicting the effect of treatment condition on change in child ODD symptoms separately for low (a value of 0 for approximately $-1SD$), mean (plotted at a value of 8), and high ($+1SD$) levels of parental ADHD symptoms. Probing the interaction by testing simple slopes (Hayes, 2013) indicated that NFPP was more effective than the WL condition at all levels of parent ADHD symptoms but *particularly* when parents had high ADHD symptom scores at baseline. No significant interactions emerged for child ADHD outcomes.

Teacher reported outcomes—Of the eight possible interactions between parent ADHD symptoms and intervention condition, two significant interactions emerged for change in child ODD symptoms at post for models five (HNC vs. WL) and seven (NFPP vs. HNC). Figures 2b and 2c illustrate the form of the interactions by depicting the effect of treatment condition on change in child ODD symptoms separately for low, mean, and high levels of parental ADHD symptomatology. Simple slopes analyses indicated that HNC was superior to WL at post intervention when parents were low in ADHD symptoms but not at mean or high levels. Further, HNC was equivalent to NFPP at post when parents were low in ADHD symptoms but NFPP was superior to HNC when parents had mean or high ADHD symptoms. No significant interactions emerged for child ADHD outcomes.¹

Discussion

It has been hypothesized that parental ADHD symptoms may compromise the efficacy of BPT by interfering with parents learning and consistently implementing skills taught in these interventions. This study examined if parental ADHD symptoms reduced the effectiveness of two BPT programs on children's ADHD and ODD symptoms. Our findings provided very little support for this hypothesis as only one significant interaction aligned with it. For teacher reported child ODD symptoms, HNC was more effective than the WL group when parental ADHD symptoms were low, but not when they were at the mean or high. In contrast to our second hypothesis, this finding emerged only for child ODD symptoms and not for child ADHD symptoms. The finding of only one of 16 interactions supporting our hypotheses suggests that this significant effect should be viewed with extreme caution as it could have emerged from conducting multiple tests.

Two other interactions were significant but neither supported our hypotheses: NFPP was *more* effective than WL primarily when parental ADHD symptoms were high for parent reported child ODD symptoms and NFPP was more effective than HNC when parental ADHD symptoms were at the mean or high for teacher reported child ODD symptoms. As these findings were unexpected, did not emerge when child ADHD symptoms were the outcome, and had different reporters (parent and teacher) and comparison groups (WL and HNC) for the two interactions, replication is necessary before speculating about an explanation.

¹To further test for moderation, we utilized parent, rather than clinician, report and less support for moderation emerged.

The limited support for higher level of parental ADHD symptoms *reducing* effective outcomes for both child ADHD and ODD symptoms is congruent with Van den Hoofdakker et al. (2010). Our study adds to that study by inclusion of a larger sample size, follow-up data, and assessment in two settings. Of particular interest, the absence of significant interactions for child ADHD symptoms is noteworthy as this was the primary problem presented by children enrolled in the study.

In terms of strengths, our study is the first examination of parental ADHD symptoms as a moderator of two well-established BPT programs. Second, clinicians served as evaluators of the moderator variable and parents and teachers served as reporters of outcome variables. Third, both post and follow-up assessments were conducted for intervention participants. Fourth, unique effects of parental ADHD symptoms were examined as other psychopathology was controlled. Fifth, change in child ODD and ADHD symptoms was simultaneously examined as outcomes allowing for models to account for correlations between these symptoms and make inference about unique moderation effects for each symptom. Sixth, we utilized rigorous clinical interviews in our assessment of parent ADHD symptoms.

In terms of limitations, the average number of parental ADHD symptoms was low (7.67 on a 0–54 point scale). Chronis-Tuscano, Wang, Woods, Strickland, and Stein (in press) recently noted studies that failed to find an effect of parental ADHD symptoms on child behavior outcome have utilized samples with low mean levels of these symptoms. Our findings, as well as the earlier studies reviewed by Chronis-Tuscano et al., may have resulted from a floor effect for parental ADHD symptoms, limiting the ability of these symptoms to moderate child outcomes. Second, the current study was not sufficiently powered for detecting an average effect size reported in the literature for tests of moderation ($f^2 = 0.009$; Aguinis et al., 2005). This is a common issue in moderation analyses, especially in studies designed to test main effect treatment outcomes, but nevertheless warrants caution when interpreting null effects.

The current findings suggest that parent ADHD symptoms may have limited impact on the outcome of BPT with young children with ADHD. However, based on the limitations of the literature and the current study, as well as a recent pilot study by Chronis-Tuscano et al. (2016) suggesting addressing the parent's ADHD symptoms may enhance intervention effects, researchers at present should continue to assess parent ADHD symptoms when evaluating interventions for child ADHD.

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Highlights

- Examined if parental ADHD symptoms reduced the efficacy of BPT
- ADHD and ODD symptoms of preschoolers with ADHD were outcomes
- Parent ADHD symptoms had limited impact on the outcome of BPT

Figure 1.

Parallel process latent change score model for testing study hypotheses.

Note: Separate models were run for each condition variable (i.e., HNC vs. WL, NFPP vs. WL, and HNC vs. NFPP). This model was repeated with follow-up instead of post for the active treatment comparison analysis. All analyses were then repeated for teacher reported symptoms.

Figure 2.

The moderating effect of parental ADHD symptoms on efficacy of BPT

Note: ns = $p > .10$; + = $p < .10$; * = $p < .05$

Table 1

Model fit statistics.

Model	Time Point	χ^2 (df)	<i>p</i>	RMSEA [95% CI]	CFI	SRMR
1. Parent – HNC vs. WL	Post	5.03 (2)	.081	.126 [.00 to .27]	.98	.052
2. Parent – NFPP vs. WL	Post	5.51 (2)	.064	.133 [.00 to .27]	.98	.050
3. Parent – NFPP vs. HNC	Post	7.31 (2)	.026	.145 [.04 to .26]	.97	.065
4. Parent – NFPP vs. HNC	Follow-up	27 (2)	.000	.314 [.22 to .42]	.82	.109
5. Teacher – HNC vs. WL	Post	1.56 (2)	.459	.000 [.00 to .19]	1.0	.024
6. Teacher – NFPP vs. WL	Post	.82 (2)	.664	.000 [.00 to .15]	1.0	.013
7. Teacher – NFPP vs. HNC	Post	4.2 (2)	.123	.093 [.00 to .22]	.99	.031
8. Teacher – NFPP vs. HNC	Follow-up	23 (2)	.000	.287 [.19 to .40]	.71	.066

Note: Parent = Parent report on the Conners; Teacher = Teacher report on the Conners; in all models the second condition is coded as 0 (WL and then HNC).

Table 2

Results from LCS models.

Models	Parent Report			Teacher Report		
	b	95% CI	p value	b	95% CI	p value
Outcome: ODD- Post						
HNC vs. WL	-.3.99	-.6.4 to -1.5	.002	-1.89	-4.0 to .17	.072
Parent ADHD	.184	.002 to .37	.048	-.051	-.21 to .11	.529
Interaction	-.122	-.35 to .11	.297	.210	.04 to .39	.019
Parent GSI	-.022	-.08 to .03	.411	-.033	-.09 to .03	.273
Outcome: ADHD- Post						
HNC vs. WL	-9.69	-14.5 to -4.9	.000	-2.21	-5.3 to .91	.165
Parent ADHD	-.146	-.41 to .12	.275	-.195	-.60 to .21	.350
Interaction	.024	-.35 to .40	.901	.225	-.20 to .65	.294
Parent GSI	.033	-.05 to .12	.425	.026	-.04 to .09	.437
Outcome: ODD- Post						
NFPP vs. WL	-2.36	-4.8 to .09	.059	-2.48	-4.3 to -.63	.009
Parent ADHD	.186	-.003 to .37	.054	-.009	-.16 to .14	.906
Interaction	-.217	-.43 to -.004	.046	.057	-.10 to .21	.464
Parent GSI	-.023	-.09 to .04	.479	-.061	-.14 to .01	.101
Outcome: ADHD - Post						
NFPP vs. WL	-6.14	-11.1 to -1.2	.015	-2.70	-5.9 to .46	.094
Parent ADHD	.000	-.29 to .29	.999	-.084	-.45 to .29	.655
Interaction	-.183	-.60 to .24	.288	.072	-.31 to .45	.707
Parent GSI	-.066	-.19 to .06	.396	-.049	-.11 to .01	.113
Outcome: ODD- Post						
NFPP vs. HNC	1.62	-.90 to 4.15	.208	-.416	-2.1 to 1.3	.634
Parent ADHD	.053	-.14 to .24	.581	.133	.03 to .24	.014
Interaction	-.091	-.30 to .12	.395	-.124	-.25 to -.01	.045
Parent GSI	-.015	-.06 to .03	.505	-.008	-.04 to .03	.679
Outcome: ADHD - Post						

Models	Parent Report			Teacher Report		
	b	95% CI	p value	b	95% CI	p value
NEPP vs. HNC	.395	-.13 to 9.2	.140	-.127	-2.9 to 2.7	.929
Parent ADHD	-.102	-.44 to .23	.546	.041	-.15 to .23	.681
Interaction	-.139	-.58 to .31	.540	-.102	-.32 to .12	.368
Parent GSI	.015	-.10 to .13	.788	.018	-.05 to .09	.600
Outcome: ODD – F/U						
NEPP vs. HNC	.925	-2.0 to 3.9	.543	-.634	-3.8 to 2.6	.699
Parent ADHD	-.043	-.24 to .15	.669	-.014	-.18 to .16	.871
Interaction	.017	-.23 to .26	.893	.019	-.21 to .25	.871
Parent GSI	.036	-.04 to .11	.369	-.036	-.11 to .03	.312
Outcome: ADHD – F/U						
NEPP vs. HNC	2.22	-4.2 to 8.6	.496	-1.12	-6.4 to 4.2	.678
Parent ADHD	-.224	-.51 to .06	.122	-.135	-.45 to .18	.405
Interaction	.145	-.30 to .59	.527	-.025	-.39 to .34	.893
Parent GSI	.012	-.11 to .14	.853	-.043	-.17 to .09	.515

Note: Paths involving baseline ODD and ADHD scores were included in all models but are not displayed above. Also, correlated change score residuals were modeled but are not displayed above. Full details are available from the second author. Either WL or HNC (for active comparison) is coded as 0.