

ADHD in Adolescents: Commentary on the Special Issue of Ripple Effects in Self-Perceptions and Social Relationships

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Abstract

Adolescence is a developmental period that affords both risk as well as enormous opportunity. Ripple effects can extend far and wide and speak to the nuance and complexity in understanding and treating ADHD during the adolescent period. The studies in this special issue provide novel and important insights into the lives of adolescents with ADHD, and they collectively point to important areas for both research and clinical attention. Further, each of the studies underscore the importance of soliciting the perspective of adolescents with ADHD. In this commentary, I consider the value of self-report when working with adolescents with ADHD, the possibility of a self-perception bias in youth with ADHD, challenges in assessing social functioning in adolescence, and implications for school-based assessments and interventions. For treatment specifically, I raise the possibility of a modular intervention approach for adolescents with ADHD and shared decision making that solicits and incorporates the adolescent perspective. The voices of adolescents with ADHD may be crucial for understanding how to lower risk, promote resilience, reduce stigma, and improve our assessments and interventions.

Keywords

ADHD, attention-deficit/hyperactivity disorder, bias, positive illusory bias, school interventions, shared decision making, social functioning, stigma

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Adolescence is a developmental period that affords both risk as well as enormous opportunity. This is true for all adolescents, and particularly so for teens with pre-existing mental health or learning difficulties (Hinshaw & Becker, 2020). Before starting doctoral training, I spent time working in community mental health with juvenile justice-involved adolescents and their families. When my focus shifted to research, my interest in adolescents involved in the juvenile justice system continued, with my first research project involving weekly visits to a nearby juvenile detention center to interview detained youth about their adverse life experiences (Becker & Kerig, 2011). Why venture down this road of personal history? Because my clinical and research work with juvenile justice-involved adolescents continue to have a tremendous influence on me today. Now that most of my work has turned to topics related to attention-deficit/hyperactivity disorder (ADHD), I still think back to those juvenile justice-involved youth. I wonder how many likely had ADHD and what role ADHD and associated challenges played in their developmental trajectories. I wonder how family and peer relationships shaped behavior and contributed to decisions that led to involvement with the juvenile court for substance use or delinquency. I think about the adolescent who died by drug overdose, the adolescent who became an excited yet terrified young father, and also the many adolescents who with great vulnerability and insight shared about their lives and their hopes for the future. I also thought of these youth many times while reading the outstanding special issue on self-perceptions and social relationships in adolescents with ADHD led by Judy Wiener (Wiener, 2020a, 2020b). Ripple effects extend far and wide and speak to the nuance and complexity in understanding and treating ADHD during the adolescent period.

Perhaps most notably, the four studies included in the special issue underscore the importance of soliciting and hearing the voices of adolescents with ADHD. This is evident not only in the qualitative study by Maya Beristain and Wiener that included in-depth interviews (Maya Beristain & Wiener, 2020b), but also in the quantitative studies that incorporate adolescents' own ratings of ADHD symptoms and functioning (Colomer et al., 2020), the use a pictorial interview designed to assess ADHD and co-occurring symptoms (Varma & Wiener, 2020), and individualized assessment of adolescents' friendships (Maya Beristain & Wiener, 2020a). Together, these studies provide novel and important insights into the lives of adolescents with ADHD, and they collectively point to areas for both research and clinical attention. In this commentary, I focus on the value of self-report when working with adolescents with ADHD, the possibility of a self-perception bias in youth with ADHD, challenges in assessing social functioning in adolescence, and implications for school-based assessments and interventions.

What is the Value of Self-Report in Adolescents with ADHD?

Adolescents may be poor informants of their own ADHD symptoms, particularly as compared to adult informants (Sibley et al., 2012; Smith et al., 2000). In addition, academic, behavioral, and social measures completed by adolescents with ADHD are

often viewed with skepticism given possible self-perception biases that may be more prominent or pronounced among individuals with ADHD (Owens et al., 2007). Even certain domains that have historically been viewed as important to collect via self-report, such as internalizing symptoms, have recently been called into question when being assessed in youth with ADHD (Martin et al., 2019). Because of this, investigators and clinicians may be dismissive of the self-report of adolescents with ADHD, perhaps prematurely. To be sure, the degree to which self-report should be included or prioritized should be based on empirical evidence. There are surely instances when it is reasonable to not collect self-report ratings from adolescents with ADHD, or to view them with some skepticism. But I have increasingly wondered if our field's lack of appreciation for self-report *ratings* extends to a lack of appreciation for understanding the self-report *experiences* of adolescents with ADHD. With these considerations in mind, I appreciated the care in which articles in the special issue included the perspectives and voices of adolescents with ADHD.

Each of the studies in the special issue included measures or interviews to gain the perspective of adolescents themselves. This is particularly evident in the two studies examining friendships of adolescents with ADHD (Maya Beristain & Wiener, 2020a, 2020b). Although neither study incorporated sociometric methods or the perspective of the friends of adolescents with ADHD, the quantitative and qualitative methods highlight the importance of asking about the experiences of adolescents with ADHD. First, Maya Beristain and Wiener (2020a) used a questionnaire that went far beyond asking adolescents whether they had a friend and, if so, how many. Rather, the questionnaire asked for adolescents to list the first name and last initial of their close friends (both in and out of school), which would seem to make the questionnaire more concrete for participants and potentially increase its reliability and validity. Following this, adolescents were asked to indicate each listed friend's gender, age, whether they attended school together, when they became friends, and frequency of contact (in-person, online, and via telephone/texting). Parents completed a parallel measure that allowed for corroboration of listed friendships.

Using this approach, the authors found that adolescents with ADHD did not differ from adolescents without ADHD in the number of friends, duration of friendships, or the frequency of contact with friends—all domains that have been more frequently investigated in the broader literature—though adolescents with ADHD were more likely to have friends who were older or younger by at least 2 years. In addition, this study provides interesting insights into the friendships of adolescent females with ADHD, who were found to have fewer friendships corroborated by parents than adolescent females without ADHD, likely because adolescent females with ADHD were also more likely to have fewer of their friends attending their school and to be notable in reporting that they had friends whom they initially met online. Friendships are, by definition, close, mutual relationships involving two individuals. The presence and quality of friendships can thus be harder for parents to observe, particularly given the privacy and online social worlds of many adolescents. A previous study found adult females with ADHD to have a greater preference for online social communication and a tendency to have used online methods to interact with strangers than adult females

without ADHD (Mikami et al., 2015). However, no males were included in the Mikami et al. study, and to my knowledge the study by Maya Beristain and Wiener (2020a) is the first to show that initially meeting friends online may be a unique feature of how friendships are formed in females, but not males, with ADHD. This is an important finding for further investigation and made possible only because adolescents were asked to list and describe the context for their friendships.

The second study by Maya Beristain and Wiener (2020b) used qualitative methodology to further understand the friendships of adolescents with ADHD. Using semi-structured interviews with nine adolescents with ADHD, it was not surprising to read that participants reported peer rejection, loneliness, and conflictual relationships with friends in childhood and early adolescence. However, what also emerged from the interviews were themes that illustrate the *developmental pathways* that can involve rejection and loneliness, acceptance of friendlessness, and, ultimately, new friendships grounded in shared interests, similar personalities, and reciprocal support. These insights may have valuable intervention implications. How do youth with ADHD arrive at their interests, and how might we help cultivate their interests that may benefit friendships as well as other aspects of functioning? Can peer or buddy support interventions, focused on organization and problem-solving, be used to promote peer inclusion? As existing friendship interventions that are classroom- and parent-directed (Mikami et al., 2010, 2013) may be difficult to effectively implement with adolescents, creative approaches are likely needed to improve the friendships and broader peer relationships in adolescents with ADHD.

Do Adolescents with ADHD Have a Self-Perception Bias?

As noted above, there has been much interest and empirical inquiry examining the possibility that youth with ADHD display self-perception biases (“positive illusory bias”) (Owens et al., 2007). In their article in this special issue, Colomer et al. (2020) examined whether adolescents with ADHD underestimated their ADHD and oppositional defiant symptoms, as well as learning and social problems, relative to parent and teacher ratings. Adolescents with ADHD did have lower symptom and impairment scores compared to parent ratings, though not compared to teacher ratings. Further, adolescents with ADHD reported more symptoms and impairments than adolescents without ADHD across domains of adjustment, and adolescent-reported learning problems were moderately correlated with lower academic achievement scores, suggesting that adolescents with ADHD were not entirely unaware of their difficulties.

The study by Colomer et al. (2020) adds to a growing number of studies raising new insights and questions into possible self-perception biases in youth with ADHD. First, as with most areas of inquiry, far fewer studies have examined the possible self-perception bias in adolescents with ADHD compared to children with ADHD. This is an important consideration given the known changes that occur regarding self-perceptions and self-esteem during adolescence (especially for females) (Robins & Trzesniewski, 2005). Further, like Colomer and colleagues, studies have found depressive symptoms to be associated with a lower self-perception bias (Jiang & Johnston,

2014) and depressive symptoms rise markedly across adolescence (again, especially for females) (Avenevoli et al., 2015). Perhaps because of the attenuating effect of co-occurring depressive symptoms, recent studies have questioned whether self-perception biases are as common among adolescents with ADHD (Bourchtein et al., 2017; Tu et al., 2019) or linked to later impairments (Swanson et al., 2012; Tu et al., 2019) as previously believed. In line with these studies, longitudinal analyses in the Multimodal Treatment of ADHD (MTA) Study found that biases in social competence peaked around age 11.5 years among youth with ADHD before decreasing across adolescence, whereas biases in behavioral competence were greatest at the initial assessment point (age 8 years) and then declined across childhood and adolescence (Hoza et al., 2010). Intriguingly, peer relationships become increasingly prioritized in adolescence, and there is some evidence that a bias in social competence may be uniquely stable over time in adolescents with ADHD (Bourchtein et al., 2017; Hoza et al., 2010).

The Colomer et al. (2020) study fits within this larger literature and also raises important questions related to the importance of considering which domains of functioning are important to adolescents themselves and whether they are motivated to have success in the areas being investigated. In working with adolescents with ADHD, it is critical to consider not only whether a self-perception bias may be present, but adolescent (and parent and teacher) motivations and other factors that can contribute to a richer understanding of the presence, or absence, of any biases within particular domains of functioning.

How Can We Measure Social Functioning in Adolescence?

Social relationships are so important to adolescents and are yet also extremely difficult to assess. “Social functioning” is an incredibly broad term, serving as an umbrella for varied facets such as social skills (i.e., behaviors associated with positive social outcomes), social competence (i.e., efficacy in interpersonal interactions), peer rejection and withdrawal, friendship, peer victimization, romantic relationships, and numerous aspects of the parent-child relationship and more rarely studied areas such as sibling relationships. Loneliness and aggression are also closely related to social functioning constructs. Furthermore, each of these facets includes subdomains such as friendship quantity, quality, or co-rumination, or the distinction between physical, relational, and cyber victimization. A recent review of social skills and social competence measures found that several adolescent-specific measures of social skills and social competence have been rarely used in clinical samples (Dryburgh et al., 2020). Further, social functioning by definition involves at least two people, and yet it is far less common for investigators or clinicians to directly observe or gain input from peers or friends (let alone enemies), largely due to the substantial burden and ethical considerations involved.

In the current special issue, Varma and Wiener (2020) used a unique pictorial interview, the *Alex*, to assess whether adolescents identified (yes or no) with various pictures showing social difficulties as well as other domains (e.g., learning difficulties, mental health, risk-taking). Yet, the internal consistency for the social difficulties scale

was weak ($\alpha = .62$), perhaps because of the many facets and nuances related to social difficulties. It is therefore difficult to know if the lack of differences in reported social difficulties between adolescents with and without ADHD in the Varma and Wiener study was at least partially due to poor reliability in the social difficulties measure.

It is easy to see how themes of the special issue are intertwined: social functioning is multifaceted and challenging to assess, there is indication that at least some adolescents with ADHD have biases regarding their social functioning, and at the foundation of both of these issues is whether our field has reliable and valid measures that can be used. This is not intended to be a criticism of the Varma and Wiener study, or even the *Alex* measure specifically. Rather, it is increasingly clear that many of the measures we use to assess social functioning in adolescence are outdated (e.g., do not include any assessment of online relationships or interactions), lacking in strong psychometric properties, and/or are rarely used across studies which make it incredibly difficult to compare findings across samples or determine if findings replicate (Dryburgh et al., 2020). As someone quite interested in adolescent social functioning (Becker et al., 2015, 2017; Dvorsky et al., 2018), I say this as much to myself as I do to others: our field can and must do better to address these issues in assessing social functioning in adolescents with ADHD.

What are the Implications for School-based Assessments and Interventions?

There has been tremendous work to assess and treat ADHD in adolescents in the past decade. My first foray in the area of ADHD was working as a graduate student with Joshua Langberg on the school-based Homework, Organization, and Planning Skills (HOPS) and Challenging Horizons Program (CHP) interventions (Langberg et al., 2011, 2012, 2013, 2016; for a review of these interventions, see Evans et al., 2014). During these formative experiences, many of my conversations with Josh focused on the intervention development process for school-based interventions, particularly in considering how to develop interventions that can be feasibly implemented after a project or grant is completed. The benefit of high-intensity or time- and personnel-interventions, as well as longer educational/clinical assessments, must be carefully evaluated compared to less intensive interventions (Evans et al., 2016) and also monitored for uptake by schools after the efficacy trials end.

In light of these considerations, it can be challenging to determine what does, or can feasibly, fit within the role of a school psychologist. The findings of the articles in this special issue speak to the value of thorough assessment, and yet school psychologists and other school mental health professionals are typically quite limited in what they can routinely assess for any individual student. This does leave create a challenge for how a school psychologist or clinician implements the recommendations within this special issue, which when considered together would include assessment of multiple domains of psychopathology (including ADHD and depressive symptoms), peer relationships (including friendship), and attributions, in addition to the clear need to assess academic functioning.

What does this mean for our current approaches and interventions for adolescents with ADHD? To be clear, I am in many ways a sideline observer of the incredible efforts by others who have thoughtfully and tirelessly worked to develop and test interventions for adolescents with ADHD. It is one thing to talk about interventions for youth with attentional and behavioral difficulties, it is something entirely different to be directly engaged in this challenging work. And yet, my observations during my work on the HOPS and CHP studies continue to inform my thinking about school-based interventions for adolescents with ADHD. In this commentary, I would like to focus on two considerations: the possibility of a modular intervention approach that targets identified areas of impairment and shared decision making that solicits and incorporates the adolescent perspective.

Adolescents with ADHD can have a wide range of impairments that impact daily functioning. In addition to ADHD symptoms, they frequently have co-occurring mental health problems, social problems, difficulties with emotion regulation, and academic difficulties, to name a few. Whereas some interventions are tailored to specific impairments (e.g., organization), others include multiple components targeting multiple impairments (e.g., organization and social difficulties). For example, when working in the CHP, I recall two middle school students with quite different impairment profiles—one was quite socially skilled but had substantial difficulties with organization, whereas the other had social skill deficits but maintained a binder organization system almost perfectly for an entire year after it was initially set up. Both students received the academic and interpersonal skills interventions provided within the CHP. In some ways, this may have been a benefit to both students, as the socially skilled student was able to engage with and even provide peer feedback to the student with social skills difficulties, and vice versa. Yet it also raised questions about whether these students might have benefited from a more personalized treatment approach targeting their key impairments. Modular treatments allow for flexible application and have been shown to be effective for improving child and adolescent mental health (Chorpita et al., 2013, 2017; Weisz et al., 2012). Would there be a benefit to developing and testing a modular school-based intervention for adolescents with ADHD? A school mental health provider could have one treatment package that includes a menu of optional modules depending on the impairments of the student (e.g., organization, note taking, social skills, behavior, anxiety/depression, postsecondary job/education options). The selection and sequencing of modules can be based on an initial assessment that incorporates the perspectives of parents, teachers, and adolescents themselves, with a more comprehensive assessment prior to initiating the intervention and more focused assessments over the course of the intervention based on the impairments initially identified.

A modular intervention approach may also be important for the second issue I wanted to raise regarding the adolescent perspective in interventions and shared decision making. Despite the effort put into developing and testing interventions for adolescents with ADHD, the reality is that adolescents are not particularly eager to use them. A mixed methods study found that adolescents with ADHD had a low willingness to use evidence-based interventions, with teens' willingness significantly lower than parent, teacher, and health care professional respondents across all ADHD

interventions examined (including both medication and psychosocial interventions) (Bussing et al., 2012). Another study by the investigators focused specifically on school-based interventions and again found that adolescents with ADHD had lower receptivity toward academic interventions compared to adult respondents (Bussing et al., 2016). The authors concluded that “it is critically important to consider adolescents’ viewpoints to avoid interventions that are acceptable to adults, but resented or resisted by adolescents” (Bussing et al., 2016, p. 410). Importantly, teacher input has been solicited in developing school-based interventions for adolescents with ADHD (Langberg et al., 2011), and incorporating adolescents’ perspectives may be especially important for ensuring that interventions are not only effective but also willing to be used by adolescents themselves. The adolescent perspective may be useful in considering how interventions can be designed or used in ways that reduce stigma, a key concern among adolescents with ADHD (Bussing et al., 2016; Moldavsky & Sayal, 2013) and consistent with the findings by Varma and Wiener (2020) in this special issue.

Shared decision making has begun to be examined as a strategy to improve the medication care that pediatricians provide to youth with ADHD (Brinkman et al., 2013; Fiks et al., 2011). There may also be great benefit to examined shared decision making in behavioral and psychosocial treatments for adolescents with ADHD. Consider again the possibility of a modular intervention for adolescents with ADHD. After conducting an assessment, including gathering information from adolescents in addition to parents and teachers, a provider can collaboratively include the adolescent in the process of determining which modules to start with or prioritize. This approach may increase the adolescents’ engagement and motivation as they are included as an active partner in making decisions about their own treatment. Just as the special issue articles included and valued the perspectives of adolescents with ADHD in research, there may be benefit to including and incorporating the perspectives of adolescents with ADHD in intervention development and the treatment process.

Conclusion

There has been substantial research and clinical attention in recent years devoted to understanding and treating adolescents with ADHD (Becker, 2020). This special issue is a welcome addition to this growing literature. Collectively, the studies in the special issue advance our understanding of the social relationships and self-perceptions in adolescents with ADHD, while also pointing to important directions for further work in these critical domains. As empirical and clinical efforts advance, it will be important to include and incorporate the perspectives of adolescents themselves. The voices of adolescents with ADHD may be crucial for understanding how to lower risk, promote resilience, reduce stigma, and improve our assessments and interventions.

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References

- Avenevoli, S., Swendsen, J., He, J. P., Burstein, M., & Merikangas, K. R. (2015). Major depression in the national comorbidity survey-adolescent supplement: Prevalence, correlates, and treatment. *Journal of the American Academy of Child & Adolescent Psychiatry, 54*(1), 37–44.e2.
- Becker, S. P. (Ed.). (2020). *ADHD in adolescents: Development, assessment, and treatment*. The Guilford Press.
- Becker, S. P., & Kerig, P. K. (2011). Posttraumatic stress symptoms are associated with the frequency and severity of delinquency among detained boys. *Journal of Clinical Child & Adolescent Psychology, 40*(5), 765–771.
- Becker, S. P., Langberg, J. M., Evans, S. W., Girio-Herrera, E., & Vaughn, A. J. (2015). Differentiating anxiety and depression in relation to the social functioning of young adolescents with ADHD. *Journal of Clinical Child & Adolescent Psychology, 44*(6), 1015–1029.
- Becker, S. P., Mehari, K. R., Langberg, J. M., & Evans, S. W. (2017). Rates of peer victimization in young adolescents with ADHD and associations with internalizing symptoms and self-esteem. *European Child & Adolescent Psychiatry, 26*(2), 201–214.
- Bourchtein, E., Langberg, J. M., Owens, J. S., Evans, S. W., & Perera, R. A. (2017). Is the positive illusory bias common in young adolescents with ADHD? A fresh look at prevalence and stability using latent profile and transition analyses. *Journal of Abnormal Child Psychology, 45*(6), 1063–1075.
- Brinkman, W. B., Majcher, J. H., Poling, L. M., Shi, G., Zender, M., Sucharew, H., Britto, M. T., & Epstein, J. N. (2013). Shared decision-making to improve attention-deficit hyperactivity disorder care. *Patient Education and Counseling, 93*(1), 95–101.
- Bussing, R., Koro-Ljungberg, M., Gagnon, J. C., Mason, D. M., Ellison, A., Noguchi, K., Garvan, C. W., & Albarracin, D. (2016). Feasibility of school-based ADHD interventions: A mixed-methods study of perceptions of adolescents and adults. *Journal of Attention Disorders, 20*(5), 400–413.
- Bussing, R., Koro-Ljungberg, M., Noguchi, K., Mason, D., Mayerson, G., & Garvan, C. W. (2012). Willingness to use ADHD treatments: A mixed methods study of perceptions by adolescents, parents, health professionals and teachers. *Social Science & Medicine, 74*(1), 92–100.
- Chorpita, B. F., Daleiden, E. L., Park, A. L., Ward, A. M., Levy, M. C., Cromley, T., Chiu, A. W., Letamendi, A. M., Tsai, K. H., & Krull, J. L. (2017). Child STEPs in California: A cluster randomized effectiveness trial comparing modular treatment with community

- implemented treatment for youth with anxiety, depression, conduct problems, or traumatic stress. *Journal of Consulting and Clinical Psychology*, 85(1), 13–25.
- Chorpita, B. F., Weisz, J. R., Daleiden, E. L., Schoenwald, S. K., Palinkas, L. A., Miranda, J., Higa-McMillan, C. K., Nakamura, B. J., Austin, A. A., Borntreger, C. F., Ward, A., Wells, K. C., Gibbons, R. D., & Research Network on Youth Mental Health. (2013). Long-term outcomes for the Child STEPs randomized effectiveness trial: A comparison of modular and standard treatment designs with usual care. *Journal of Consulting and Clinical Psychology*, 81(6), 999–1009.
- Colomer, C., Wiener, J., & Varma, A. (2020). Do adolescents with ADHD have a self-perception bias for their ADHD symptoms and impairment? *Canadian Journal of School Psychology*, 35(4), 238–251. <https://doi.org/10.1177/0829573520936457>
- Dryburgh, N. S. J., Khullar, T. H., Sandre, A., Persram, R. J., Bukowski, W. M., & Dirks, M. A. (2020). Evidence base update for measures of social skills and social competence in clinical samples of youth. *Journal of Clinical Child & Adolescent Psychology*, 49(5), 573–594. <https://doi.org/10.1080/15374416.2020.1790381>
- Dvorsky, M. R., Langberg, J. M., Evans, S. W., & Becker, S. P. (2018). The protective effects of social factors on the academic functioning of adolescents with ADHD. *Journal of Clinical Child & Adolescent Psychology*, 47(5), 713–726.
- Evans, S. W., Langberg, J. M., Egan, T., & Molitor, S. J. (2014). Middle school-based and high school-based interventions for adolescents with ADHD. *Child and Adolescent Psychiatric Clinics*, 23(4), 699–715.
- Evans, S. W., Langberg, J. M., Schultz, B. K., Vaughn, A., Altaye, M., Marshall, S. A., & Zoromski, A. K. (2016). Evaluation of a school-based treatment program for young adolescents with ADHD. *Journal of Consulting and Clinical Psychology*, 84(1), 15–30.
- Fiks, A. G., Hughes, C. C., Gafen, A., Guevara, J. P., & Barg, F. K. (2011). Contrasting parents' and pediatricians' perspectives on shared decision-making in ADHD. *Pediatrics*, 127(1), e188–e196.
- Hinshaw, S. P., & Becker, S. P. (2020). Toward a developmental psychopathology approach for understanding, assessing, and treating ADHD in adolescents. In S. P. Becker (Ed.), *ADHD in adolescents: Development, assessment, and treatment* (pp. 1–18). The Guilford Press.
- Hoza, B., Murray-Close, D., Arnold, L. E., Hinshaw, S. P., Hechtman, L., & The MTA Cooperative Group. (2010). Time-dependent changes in positively biased self-perceptions of children with attention-deficit/hyperactivity disorder: A developmental psychopathology perspective. *Development and Psychopathology*, 22(2), 375–390.
- Jiang, Y., & Johnston, C. (2014). Co-occurring aggressive and depressive symptoms as related to overestimations of competence in children with attention-deficit/hyperactivity disorder. *Clinical Child and Family Psychology Review*, 17(2), 157–172.
- Langberg, J. M., Becker, S. P., Epstein, J. N., Vaughn, A. J., & Girio-Herrera, E. (2013). Predictors of response and mechanisms of change in an organizational skills intervention for students with ADHD. *Journal of Child and Family Studies*, 22(7), 1000–1012.
- Langberg, J. M., Epstein, J. N., Becker, S. P., Girio-Herrera, E., & Vaughn, A. J. (2012). Evaluation of the Homework, Organization, and Planning Skills (HOPS) intervention for middle school students with ADHD as implemented by school mental health providers. *School Mental Health*, 41(3), 342–364.
- Langberg, J. M., Evans, S. W., Schultz, B. K., Becker, S. P., Altaye, M., & Girio-Herrera, E. (2016). Trajectories and predictors of response to the challenging horizons program for adolescents with ADHD. *Behavior Therapy*, 47(3), 339–354.

- Langberg, J. M., Vaughn, A. J., Williamson, P., Epstein, J. N., Girio-Herrera, E., & Becker, S. P. (2011). Refinement of an organizational skills intervention for adolescents with ADHD for implementation by school mental health providers. *School Mental Health, 3*(3), 143–155.
- Martin, C. P., Peisch, V., Shoulberg, E. K., Kaiser, N., & Hoza, B. (2019). Does a social self-perceptual bias mask internalizing symptoms in children with attention-deficit/hyperactivity disorder? *Journal of Child Psychology and Psychiatry, 60*(6), 630–637.
- Maya Beristain, C., & Wiener, J. (2020a). Friendships of adolescents with attention-deficit/hyperactivity disorder. *Canadian Journal of School Psychology, 35*(4), 266–279. <https://doi.org/10.1177/0829573520936469>
- Maya Beristain, C., & Wiener, J. (2020b). Finding true friendships: The friendship experiences of adolescents with attention-deficit/hyperactivity disorder. *Canadian Journal of School Psychology, 35*(4), 280–298. <https://doi.org/10.1177/0829573520931679>
- Mikami, A. Y., Griggs, M. S., Lerner, M. D., Emeh, C. C., Reuland, M. M., Jack, A., & Anthony, M. R. (2013). A randomized trial of a classroom intervention to increase peers' social inclusion of children with attention-deficit/hyperactivity disorder. *Journal of Consulting and Clinical Psychology, 81*(1), 100–112.
- Mikami, A. Y., Lerner, M. D., Griggs, M. S., McGrath, A., & Calhoun, C. D. (2010). Parental influence on children with attention-deficit/hyperactivity disorder: II. Results of a pilot intervention training parents as friendship coaches for children. *Journal of Abnormal Child Psychology, 38*(6), 737–749.
- Mikami, A. Y., Szewdo, D. E., Ahmad, S. I., Samuels, A. S., & Hinshaw, S. P. (2015). Online social communication patterns among emerging adult women with histories of childhood attention-deficit/hyperactivity disorder. *Journal of Abnormal Psychology, 124*(3), 576–588.
- Moldavsky, M., & Sayal, K. (2013). Knowledge and attitudes about attention-deficit/hyperactivity disorder (ADHD) and its treatment: The views of children, adolescents, parents, teachers and healthcare professionals. *Current Psychiatry Reports, 15*(8), 377.
- Owens, J. S., Goldfine, M. E., Evangelista, N. M., Hoza, B., & Kaiser, N. M. (2007). A critical review of self-perceptions and the positive illusory bias in children with ADHD. *Clinical Child and Family Psychology Review, 10*(4), 335–351.
- Robins, R. W., & Trzesniewski, K. H. (2005). Self-esteem development across the lifespan. *Current Directions in Psychological Science, 14*(3), 158–162.
- Sibley, M. H., Pelham, W. E., Jr., Molina, B. S., Gnagy, E. M., Waschbusch, D. A., Garefino, A. C., Kuriyan, A. B., Babinski, D. E., & Karch, K. M. (2012). Diagnosing ADHD in adolescence. *Journal of Consulting and Clinical Psychology, 80*(1), 139–150.
- Smith, B. H., Pelham, W. E., Gnagy, E., Molina, B., & Evans, S. (2000). The reliability, validity, and unique contributions of self-report by adolescents receiving treatment for attention-deficit/hyperactivity disorder. *Journal of Consulting and Clinical Psychology, 68*(3), 489–499.
- Swanson, E. N., Owens, E. B., & Hinshaw, S. P. (2012). Is the positive illusory bias illusory? Examining discrepant self-perceptions of competence in girls with ADHD. *Journal of Abnormal Child Psychology, 40*(6), 987–998.
- Tu, J. W., Owens, E. B., & Hinshaw, S. P. (2019). Positive illusory bias still illusory? Investigating discrepant self-perceptions in girls with ADHD. *Journal of Pediatric Psychology, 44*(5), 576–588.
- Varma, A., & Wiener, J. (2020). Perceptions of ADHD symptoms in adolescents with attention-deficit/hyperactivity disorder: Attributions and stigma. *Canadian Journal of School Psychology, 35*(4), 252–265. <https://doi.org/10.1177/0829573520936459>

- Weisz, J. R., Chorpita, B. F., Palinkas, L. A., Schoenwald, S. K., Miranda, J., Bearman, S. K., Daleiden, E. L., Ugueto, A. M., Ho, A., Martin, J., Gray, J., Alleyne, A., Langer, D. A., Southam-Gerow, M. A., Gibbons, R. D., & Research Network on Youth Mental Health. (2012). Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth: a randomized effectiveness trial. *Archives of General Psychiatry*, 69(3), 274–282.
- Wiener, J. (2020a). The ripple effect of ADHD in adolescents: Self-perceptions and social relationships. *Canadian Journal of School Psychology*, 35(4), 235–237. <https://doi.org/10.1177/0829573520936456>
- Wiener, J. (2020b). The role of school psychologists in supporting adolescents with ADHD. *Canadian Journal of School Psychology*, 35(4), 299–310. <https://doi.org/10.1177/0829573520923536>

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