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Here/In This Issue and There/Abstract Thinking: Does This Answer Your Question?

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Here/In This Issue

Factors promoting resilience and reducing risk are key to the clinician's ultimate goal of reducing impairment from child psychiatric disorders and their treatments. Using a variety of study methods, articles in this month's issue of the *Journal* specifically investigate many of these factors influencing child psychopathology.

Handen and colleagues (pp. xx) provide an update on a 16-week open-label extension of their prior 1-week placebo-controlled randomized controlled trial (RCT) of metformin in children with autism spectrum disorder who were treated with atypical antipsychotics. In the original study of 61 children (age 6-17), metformin outperformed placebo in decreasing body mass index (BMI). Fifty-two of the children continued in the follow-up study, 22 of whom had been randomized to metformin during the original RCT. The study's findings demonstrated that those previously on placebo had a decrease in BMI when placed on metformin while those who continued on metformin did not have any additional weight loss, though they did maintain their prior weight loss from the RCT. Though metformin did not significantly impact metabolic parameters, the impact on BMI is promising.

Two studies utilized meta-analyses to assess resilience to and risk for psychiatric symptoms. Focusing on resilience, Dray and colleagues (pp. XX) conducted a meta-analysis of school-based resilience-promoting interventions, assessing several domains of psychiatric symptoms including anxiety, depression, hyperactivity, conduct problems, and overall psychological distress. While all intervention trials were successful in reducing general psychological distress, depressive symptoms, and internalizing and externalizing problems, interventions were most effective for anxiety and general distress in younger children and most effective for reducing internalizing symptoms among adolescents. De Crescenzo and colleagues (pp. xx) investigated whether youth with bipolar disorder (BD) have a greater risk for attempting suicide compared to major depressive disorder (MDD), a phenomenon frequently noted in adult studies. Utilizing 6 studies with more than two thousand participants, the authors confirmed this occurs in youth as well, noting specifically that the

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rate of suicide attempts with BD was ~32% while it was 21% among those youth with MDD. They note the risk of suicide attempt was 1.7 times greater among those with BD.

Similarly extending findings from the adult literature, Perepletchikova and colleagues (pp. xx) investigated whether dialectical behavior therapy (DBT), originally developed to treat borderline personality disorder, would be an effective modality to treat disruptive mood dysregulation disorder (DMDD) given this disorder is similarly characterized by persistent irritability and emotion dysregulation. In this feasibility study, 43 children aged 7-12 with DMDD were randomized to DBT adapted for children (DBT-C; n=21) or treatment-as-usual (TAU; n=22). The authors report that the DBT-C group had greater session attendance than TAU (89% vs 49%), fewer drop outs (0% vs. 36%), greater parent and child treatment satisfaction, and a higher rate of positive treatment response (90% vs. 46%). Almost twice as many children in DBT-C attained remission (52% vs. 27%), and these children maintained these symptom improvements 3 months after the treatment trial concluded.

Studying a cohort that extended into young adulthood, Hammerton and colleagues (pp. xx) report on whether alcohol use hampers the typical developmental process of declining antisocial behavior (ASB) with age in a sample of adolescents and young adults from the Avon Longitudinal Study of Parents and Children. The study authors were interested in whether differences in alcohol use explained why some children were more likely to have ASB cross-sectionally and longitudinally but also whether past year alcohol use explained increasing ASB in an individual child. The results of this study supported an association between alcohol use and ASB for both between-group differences as well as individual trajectories of ASB highlighting the value of addressing substance use when targeting reductions in these maladaptive behaviors.

Fairly unique to the *Journal* this month is a clinical update by the American Academy of Child and Adolescent Psychiatry (AACAP)'s committees on telepsychiatry and quality issues (pp. xx) that reviews telepsychiatry and its utilization in child and adolescent psychiatry by updating the AACAP Practice Parameter. Given the lack of extensive evidence unique to children, this update includes some reports from adult studies and includes a broad array of evidence concerning psychotherapies and telemental health in general from relevant websites, special interest groups, and practicing telemedicine clinicians. This update covers multiple relevant topics including legal and ethical issues and use in nonclinical settings like schools, the juvenile justice system, and direct to the family in their homes. Further, to help prepare the next generation of child psychiatrists for this emerging modality, leadership from the APA, AACAP, and the American Telepsychiatry Association are working to ensure that training programs that include telepsychiatry have evidence-based outcome metrics that are in line with Accreditation Council for Graduate Medical Education guidelines.

There/Abstract Thinking: Does This Answer Your Question?

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common childhood psychiatric disorders and also one that may be most plagued by parental concerns particularly when it comes to its diagnosis and treatment. Some of this parental apprehension stems from valid questions about what effect the course of both the disorder

and treatment will have on children as they develop. Two recent investigations provide data for clinicians that may help address some of these frequent parental questions.

Caregivers faced with a new diagnosis of ADHD in their child often worry whether using stimulant medications will lead their child down the path toward substance abuse.^{1,2} While most of the data from empirical studies has been reassuring,³ Quinn et al.⁴ set out to systematically address whether stimulants or atomoxetine increased substance use in adolescents and adults with ADHD. Using a novel within-individual design with health claims records of ~3 million patients with ADHD, this study compared the risk of substance-related events (i.e., substance-related emergency room visits) during months in which patients received stimulant medication or atomoxetine relative to the risk during months in which they did not. Notably, odds of concurrent substance-related events were 35% lower for males and 31% lower for females in the months when they received medication compared to when they did not. Further, two years after receiving medication, the odds of substance-related events remained 19% lower for males and 14% lower for females. Counter to the perceptions of many in the lay public, this data continues to emphasize that treatment of ADHD with stimulants may actually be protective for later development of substance use disorders rather than the other way around.

Another frequent question parents ask mental health clinicians treating their children with ADHD is whether their child will “grow out of it.” Szekely et al. present some compelling results of how neuroimaging methods could provide answers to this perennial question.⁵ Prior theories have been put forth arguing that those children who do “grow out of” ADHD do so because of normalization of their prefrontal cortical activity even while their subcortical activity remains altered. This study aimed to test this theory using a response inhibition task during functional magnetic resonance imaging and magnetoencephalography in a sample of adults with either persistent or remitted childhood ADHD compared to unaffected controls. Compared to those without ADHD, both remitted and persistent ADHD had altered activity in the right caudate during the task, while activity, particularly in the prefrontal cortical regions, was only abnormal in those with persistent ADHD. The authors suggest this indicates that those whose ADHD remits in adulthood are those who develop better cognitive control reflected in normalization of prefrontal cortex activity. What remains to be seen is whether treatments, pharmacologic or cognitive, could be used during childhood to target enhancement of prefrontal activity and whether these neuroimaging modalities could be used to identify which children would most benefit from such treatments.

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Glossary

RH Here and There