

ABSTRACT

THE EFFECTS OF CHILDHOOD IRRITABILITY ON ADOLESCENT OUTCOMES AND TREATMENT RESPONSE IN CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

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Childhood irritability has received considerable attention in recent research due in part to the highly impairing consequences of severe irritability and its association with poor long-term outcomes (Leibenluft, Cohen, Gorrindo, Brook, & Pine, 2006; Stringaris, Cohen, Pine, & Leibenluft, 2009; Stringaris & Goodman, 2009a). While the frequency and severity of irritability typically declines with age, there are individuals who continue to display irritability at stable or increasing levels (Wiggins, Mitchell, Stringaris, & Leibenluft, 2014). Regardless of whether it persists or remits, the effects of childhood irritability resonate for many years and it remains a potent predictor of poor outcomes across the lifespan. The presence of childhood irritability is central to a diagnosis of ODD which is made up of 3-highly-intercorrelated dimensions in the DSM-5: irritability, defiance, and vindictiveness. ODD is highly comorbid with Attention-deficit/Hyperactivity Disorder (ADHD), which has been shown to exacerbate impairments in interpersonal and psychosocial functioning compared to impairments related to irritability alone (Wehmeier, Schacht, & Barkley, 2010). To date, research has examined associations between irritability in adolescence and subsequent adult outcomes; however, less is known about the stability of irritability from childhood through adolescence, particularly in individuals with ADHD, and which factors may moderate stability and outcomes. Neurodevelopmental models postulate that emotion dysregulation reflects underlying difficulties with cognitive and emotional control. While psychopharmacological treatments for ADHD have been shown to result in improvements in both of these areas, little is known about the mechanisms that bring about these improvements. This dissertation examined 1) the developmental stability of irritability and defiance, and the degree to which the presence and variability of these symptom dimensions predict adolescent outcomes, and 2) factors associated with changes in emotional control following psychopharmacological treatment in children with ADHD. Results revealed that irritability and defiance are moderately stable from childhood through adolescence in children with ADHD. The stability of irritability was moderated by socioeconomic (SES) status such that it is quite stable over time in youth from higher SES, but far less stable in those from more disadvantaged backgrounds. Neither childhood irritability nor defiance predicted later internalizing problems, but both predicted later externalizing problems (e.g., anger, aggression), as well as cigarette use. Therefore, irritability and defiance are maladaptive in an ADHD population and may increase the risk for negative long term outcomes. Treatment with atomoxetine and methylphenidate demonstrated comparable improvements in emotional control, showing shared as well as distinct effects on different aspects of cognitive control. Pre-treatment cognitive control and improved cognitive control following treatment were associated with greater improvements in emotional control. Interventions that target cognitive control may serve as an effective adjunctive treatment for individuals with ADHD and emotion dysregulation.

Keywords: Irritability, ODD, ADHD, Stability, Outcomes, Treatment