Trauma, Emergency Room Visits, and Cognition

This section of Focus on Childhood and Adolescent Mental Health includes timely articles related to the effect of trauma on children, characterization of pediatric psychiatry emergency room visits, and cognitive side effects of mood stabilizers in children and adolescents.

Do children who are directly or indirectly exposed to a single incident of trauma develop posttraumatic stress disorder (PTSD) symptoms? Kim and colleagues evaluated 335 Korean elementary school children who witnessed 2 mothers of the children die during a fire escape drill after falling out of a basket that snapped from a fire engine ladder. One thousand fifty-nine children who attended the elementary school (indirect-exposure group) were also included in the assessments. At the first assessment, which was 2 days following the event, 18.2% of the children had symptoms of PTSD, irrespective of whether or not they had witnessed the event. Two months following the event, significantly more of the children who witnessed the event had severe PTSD symptoms (7.4%) compared with the indirect-exposure group (4.9%). At 6-month follow-up, the children who directly witnessed the event had a wide range of anxiety disorders including PTSD (5.2%), agoraphobia (22.4%), generalized anxiety disorder (13.8%), separation anxiety disorder (6.9%), and social phobia (5.2%). The authors conclude that screening for mental health problems following a single incident of a traumatic event is indicated for those children directly and indirectly exposed to the traumatic event.

Ford and colleagues examined complex trauma (combination of traumatic victimization and attachment disruption) in 397 psychiatrically impaired children in a residential treatment center. Data were obtained regarding history of physical and sexual abuse; parental history of alcohol or substance abuse, violence, or arrest; out-of-home placements; psychiatric diagnoses; internalizing, externalizing, and developmental behavior problems; intelligence; hyperactivity and impulsivity; global functioning; and body mass index. The investigators found that complex trauma exposure was related to the severity of externalizing problems beyond that attributable to the effect of a psychiatric diagnosis. Importantly, multiple out-of-home placements were associated with more severe internalizing and externalizing problems and psychosocial impairment in these children. The authors recommend that a careful evaluation of complex trauma history be included in the assessment of children with psychiatric disorders in order to provide appropriate treatment.

In response to increased pediatric psychiatry emergency room visits, Callahan Soto and colleagues conducted a retrospective study to determine the characteristics of youth utilizing these services and whether the visits were appropriate to an emergency room setting. The sample included 1,062 patient visits over the course of a year to a medical center pediatric psychiatry emergency room (all patients were less than 18 years old). The most common diagnosis was a mood disorder, and a majority of these youths were in current outpatient psychiatric treatment. Twenty-nine percent of these visits led to hospitalization from the emergency room. The investigators found that more than one third of the emergency room visits were inappropriate since the presenting condition could have been managed with outpatient evaluation and treatment. Approximately a quarter of the visits were judged to be somewhat appropriate because a timely outpatient appointment was unavailable.

The main reasons for inappropriate use of the emergency room setting were direct referral from school personnel or from mental health providers without prior psychiatrist evaluation and lack of available outpatient appointments. The authors
conclude that education of school personnel and availability of outpatient psychiatric services within the school setting, as well as urgent outpatient consultation services in the community, would help to eliminate inappropriate use of psychiatric emergency room services.

Adverse effects are an important consideration in the selection of psychotropic medications for children and adolescents. Henin and colleagues evaluated 173 children and adolescents with bipolar disorder to determine whether medication treatment for youths with bipolar disorder affects neuropsychological functioning. At the time of baseline assessment, 12.1% of the sample was treated with a mood stabilizer, 9.8% was treated with a second-generation antipsychotic, 6.4% was treated with an antidepressant, and 15.6% was treated with a stimulant. Neuropsychological testing included intelligence, achievement, sustained attention, working memory, processing speed, interference control, abstract problem solving/set shifting, visuospatial organization and learning, and verbal learning.

No differences were found on intelligence scores between the children untreated and treated with different classes of medications. Those children treated with mood stabilizers had significantly worse performance on processing speed, working memory, and achievement on a timed math test compared to unmedicated children. Since the number of children taking mood stabilizers was small, it was not possible for the investigators to determine whether any particular mood stabilizer had more adverse effects on neuropsychological functioning than others. No significant impairment of neuropsychological outcomes was found for second-generation antipsychotics, stimulants, or antidepressants. Children treated with antidepressants had improved performance on processing speed compared to the unmedicated group. On the basis of their findings, the authors recommend that cognitive side effects be a consideration in medication selection for youths with bipolar disorder.

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