Stimulant Medication and Psychotic Symptoms in Offspring of Parents with Mental Illness


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BACKGROUND: Stimulants, such as methylphenidate, are among the most commonly used medications in children and adolescents. Psychotic symptoms have been reported as rare adverse reactions to stimulants but have not been systematically inquired about in most previous studies. Family history of mental illness may increase the vulnerability to drug-induced psychotic symptoms. We examined the association between stimulant use and psychotic symptoms in sons and daughters of parents with major mood and psychotic disorders.

METHODS: We assessed psychotic symptoms, psychotic-like experiences, and basic symptoms in 141 children and youth (mean ± SD age: 11.8 ± 4.0 years; range: 6–21 years), who had 1 or both parents with major depressive disorder, bipolar disorder, or schizophrenia, and of whom 24 (17.0%) had taken stimulant medication.

RESULTS: Psychotic symptoms were present in 62.5% of youth who had taken stimulants compared with 27.4% of participants who had never taken stimulants. The association between stimulant use and psychotic experiences remained significant after adjustment for potential confounders (odds ratio: 4.41; 95% confidence interval: 1.82–10.69; P = .001) and was driven by hallucinations occurring during the use of stimulant medication. A temporal relationship between use of stimulants and psychotic symptoms was supported by an association between current stimulant use and current psychotic symptoms and co-occurrence in cases that were assessed on and off stimulants.

CONCLUSIONS: Psychotic symptoms should be monitored during the use of stimulants in children and adolescents. Family history of mood and psychotic disorders may need to be taken into account when considering the prescription of stimulants.