Cooccurring Psychiatric and Substance Use Disorders

Zachary D. Robinson, MD[a,*], Paula D. Riggs, MD[b]

KEYWORDS

• Adolescents • Treatment • Cooccurring disorders • Comorbidity
• Substance use disorders

KEY POINTS

- Psychiatric disorders commonly cooccur in adolescents with substance use disorders and are associated with poorer substance treatment outcomes.
- There is considerable consensus among clinicians and researchers that treatment of adolescents with cooccurring substance and nonsubstance psychiatric disorders should be integrated, but few receive it.
- National health care reforms are reducing longstanding systemic and economic barriers to progress toward more widespread integrated behavioral health services.
- A growing body of research is providing an empirical foundation from which evidence-based principles of integrated treatment can be derived.
- This research has informed the development of at least 1 evidence-based integrated treatment model.

INTRODUCTION

Research has shown that adolescence is a particularly vulnerable developmental period for the onset of mental illness and substance use disorders (SUDs).[1] Approximately one-half of all psychiatric disorders begin before age 15, and three-quarters by age 24. Most adults who suffer from chronic addiction report initiating substance use as adolescents.[2] This increased vulnerability is thought to be due, in part, to rapid brain development that occurs throughout adolescence into young adulthood.[1,3] A

Disclosure Statement/Conflicts of Interest: The authors have no conflicts to disclose.

[a] Child and Adolescent Psychiatry, Children's Hospital Colorado, University of Colorado Hospital, University of Colorado School of Medicine, 13001 East 17th Place, Campus Box F546, Building 500, Room E2322, Aurora, CO 80045, USA; [b] Division of Substance Dependence, Department of Psychiatry, University of Colorado School of Medicine, Building 400, Mail Stop F478, Aurora, CO 80045, USA
* Corresponding author.
E-mail address: zachary.robinson@ucdenver.edu

Child Adolesc Psychiatric Clin N Am 25 (2016) 713–722
http://dx.doi.org/10.1016/j.chc.2016.05.005 **childpsych.theclinics.com**
1056-4993/16/$ – see front matter

Abbreviations	
ADHD	Attention deficit hyperactivity disorder
CBT	Cognitive–behavioral therapy
CDRS-R	Childhood Depression Rating Scale-Revised
CM	Contingency management
MDD	Major depressive disorder
MET	Motivational enhancement therapy
OROS-MPH	Safety Assessment of Potential Interactions Between IV Methamphetamine and Osmotic-Release Methylphenidate
SUD	Substance use disorder

number of childhood-onset psychiatric disorders have been shown to increase the risk of adolescent-onset SUD, including depression, anxiety, and disruptive behavior disorders.[4–9] Substance abuse during adolescence may also exacerbate preexisting mental health problems and increase the risk of developing new psychiatric disorders.[10] Longitudinal studies have shown that regular cannabis use during adolescence is associated with significant reductions in adult IQ and persistent neurocognitive deficits that may not be fully reversible, even with abstinence.[11–15] Other prospective studies have shown that regular cannabis use during adolescence approximately quadruples the risk of developing psychosis and doubles the risk of depression or anxiety disorders in early adulthood.[16–19]

The high prevalence of comorbidity between SUDs and other psychiatric disorders does not mean that one "causes" the other. Some studies suggest that shared or common genetic and/or environmental risk factors (eg, chronic maltreatment) may increase risk for both mental illness and SUD.[20–22] Genetic factors contribute to about half of the risk for addiction.[22,23] Several studies have also shown that similar brain regions and neural circuits are involved in SUD and other psychiatric disorders.[24] Repeated drug use may also alter gene expression and transcription in ways that can produce long-term changes in brain structure that may increase the risk of developing depression and/or anxiety disorders.[25–27] Taken together, this body of research suggests that risk and vulnerability to addiction and mental illness is due to complex interactions among multiple genes and environmental factors.[22,23] Although the mechanisms are still not well-understood, the high prevalence of cooccurring mental illness and SUD is well-established, and adolescence is a time of heightened vulnerability to the onset of both.

In nationally representative samples, nearly one-third of adolescents (32%) with a SUD also meet criteria for a nonsubstance psychiatric disorder.[28–30] Psychiatric comorbidity is even more common among adolescents who are referred to substance treatment including conduct disorder (60%–80%); attention deficit hyperactivity disorder (ADHD; 30%–50%); and major depressive disorder (MDD; 24%–50%).[31–33] Comorbidity has important clinical implications. Numerous studies have shown that adolescents with SUD and other cooccurring psychiatric disorders have poorer treatment outcomes compared with noncomorbid youth.[34–36] Based on this research, the National Institute on Drug Abuse has emphasized the importance of providing integrated or concurrent treatment for SUD and psychiatric comorbidity as a key principle of drug addiction treatment.[37] The Substance Abuse and Mental Health Services Association also strongly endorses the importance of integrated substance and mental health treatment for cooccurring disorders. In 2010, the Substance Abuse and Mental Health Services Association's Integrated Treatment for Co-Occurring Disorders KIT identifies core components of integrated treatment, which include cross-trained practitioners, stage-wise treatment, motivational interventions, a cognitive–behavioral