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**Adolescent Substance Use Disorders: From Acute  
Adolescent Substance Use Disorders:  
From Acute Treatment to Recovery Management**  
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**Abstract**

*A surge in adolescent alcohol and illicit drug use during the 1990s triggered renewed calls for evidence-based intervention programs and sparked an unprecedented federal investment in treatment-related adolescent research. This article discusses some of the major findings of this research (particularly the just-completed Cannabis Youth Treatment study) with particular reference to their implications for the design of community-based services for substance-involved youth and families. For adolescent substance use disorders characterized by high severity and chronicity, comorbidity, and low family and social network support, the authors call for supplementing traditional, acute models of brief intervention with more time-sustained, ecologically-focused models of recovery management.*

## **I. Historical Perspective**

Concerns about youthful alcohol misuse arose early (1780-1820) in the American Republic during a period of heightened per capita alcohol consumption (Rorabaugh, 1979). Alarm about such misuse, particularly among orphaned children, led to minimum drinking age laws and mandatory temperance education in American schools (Mosher, 1980). Youth between 15-20 constituted nearly ten percent of admissions to nineteenth century inebriate homes and inebriate asylums (White, 1998). The opening decades of the twentieth century witnessed growing concerns about non-medical opiate and cocaine use among youth. This was followed by cultural attention to rising alcohol and cannabis use in the 1930s and considerable alarm about resurging juvenile narcotic addiction in the 1950s. While youth addicted to opiates were included within the few available treatment institutions of the 1950s, adolescents entering treatment were generally viewed as

miniature versions of adult addicts (Conferences, 1953).

Mid-century recognition of the need for specialized treatment for adolescent substance use disorders led to the opening of the first specialized adolescent treatment facilities, the birth of youth-focused addiction ministries, and the rise of young people's meetings within Alcoholics Anonymous and Narcotics Anonymous. The most noted of the juvenile facilities (Riverside Hospital in New York City) closed when it was discovered that most youth relapsed following their discharge from treatment (Gamso and Mason, 1958). Rising polydrug experimentation of the 1960s and 1970s triggered an increase in the number of youth seeking admission to treatment. While there were a few youth-oriented outpatient treatments and minor adaptations of residential treatment models, services to most substance-involved adolescents were provided in adult treatment units. The failure of these programs to provide developmentally appropriate services contributed to poor treatment outcomes and a call for specialized adolescent treatment models (Sells and Simpson, 1979; Craddock, Bray, and Hubbard, 1985; Dennis, et al., in press).

The new generation of adolescent treatment programs of the 1980s and 1990s were marked by youth-oriented assessment and treatment protocol, a greater focus on family involvement in treatment, the inclusion of academic/vocational remediation within the treatment milieu and the recognition of the needs of special populations of youth, e.g., runaways, minority youth, and youth experiencing co-occurring disorders (Catalano et al, 1991; Muck et al., 2001; Williams & Chang, 2000)

The expansion of community-based treatment for substance-involved youth was accompanied by calls for evidence-based treatment practices. Three federal agencies--The National Institute on Alcohol Abuse and Alcoholism (NIAAA), The National Institute on Drug Abuse (NIDA), and The Center for Substance Abuse Treatment (CSAT)—responded by funding adolescent treatment research and by widely disseminating the findings and implications of such research studies to the design and delivery of treatment and support services for substance-impacted youth and their families. The speed of this area of knowledge development is quite remarkable. Thirty-two of 53 adolescent treatment outcome studies reviewed by Williams, et al. (2000) were published after 1990, and it has been estimated that the number of such studies will double in the next five years (White, Dennis and Tims, 2002).

This article will highlight what we believe to be six of the most important lessons emerging from the latest adolescent treatment research. In discussing these lessons, we will acknowledge the availability of brief, low cost interventions that are effective in treating many adolescent substance use disorders, and explore the

role community helpers can play in supporting the long-term recovery of youth who present with substance use disorders of high severity and chronicity.

We will use data from one of the most recent of these studies—CSAT’s Cannabis Youth Treatment (CYT) study—to illustrate these lessons (Dennis, Titus et al., in press). The CYT study randomly assigned 600 adolescents meeting diagnostic criteria for cannabis abuse or dependence within four treatment sites to one of five types of outpatient treatment. Seventy-one percent of admitted youth completed the treatment to which they were assigned, and 94% were interviewed quarterly for the first year following enrollment (all CYT interventions were complete at 3 months and follow-up continued for 3 additional quarters). The adolescents treated had an average age of 16 and were predominately male (83%), white (61%), in school (87%), and involved in the juvenile justice system (62%). (The treatment manuals used within the CYT study may be obtained by contacting the National Clearinghouse on Alcohol and Drug Information, 1-800-729-6686 or [www.health.org](http://www.health.org); a bibliography of the overall CYT findings is posted at [www.chestnut.org/li/cyt](http://www.chestnut.org/li/cyt).)

## II. Recent Research Findings/Implications

*Lesson 1. The risk and severity of substance-related problems are magnified by lowered age of onset of regular use.* The risk of substance abuse/dependence is not uniform across substance using youth. Those who begin drug use before age 15 are six times more likely than those who begin drug use after age 18 to develop adult symptoms of drug dependence. Nearly 85% of the CYT adolescents started using between the ages of 12 and 14. There is a growing body of evidence that early onset of drug use is associated with increased risk of adult substance use disorders, increased severity of those disorders, poorer treatment outcomes and longer addiction careers (the length of time between first use to achievement of stable recovery) (Chou and Pickering, 1992; Grant and Dawson, 1997). This lowered age of drug experimentation reflects the rise in the number of children who are approaching and entering adolescence in family/social environments characterized by high drug availability and norms that tolerate or promote drug experimentation. Reduced age of drug exposure may become recognized as one of the most clinically and socially significant drug trends of the twentieth century. The growing recognition of substance use in early adolescence has spurred the redesign of prevention efforts since the late 1970s (Evans, et al., 1978). Accumulating data about the social and clinical significance of the progressive lowering of age of onset of drug use is spurring more focused and sustained prevention and early intervention strategies, particularly among high-risk youth. Postponing, if not preventing, exposure to intoxicants to the latest point in

the transition from childhood to young adulthood is a crucial strategy in the goal of reducing alcohol- and other drug-related problems.

Lesson 2: *Substance use disorders of adolescence rarely present in isolation from other problems (Grella, et al., 2001; Hser, et al., 2001).* Of the adolescents admitted to treatment within the CYT study, 95% reported one or more other problems (83% had three or more). The most frequent psychiatric problems included major depression, generalized anxiety, suicidal thoughts or actions, traumatic stress disorders (60% reported a history of victimization), conduct disorder, and attention deficit-hyperactivity disorder. Other commonly reported problems included family instability, school failure, enmeshment in deviant peer cultures, and criminality. Two findings are consistent within the recent research literature: 1) youth with pre-existing problems are at higher risk for substance use disorders, and 2) substance use plays a role in the onset and exacerbation of other problems. These findings reinforce the need for broad-spectrum biopsychosocial (as opposed to problem-specific) screening and assessment procedures, and the need for multi-disciplinary, multi-agency intervention models that can provide an integrated response to multiple, co-occurring problems of youth and families.

Lesson 3: *Adolescent substance use disorders present in both acute and chronic patterns.* The former are more likely to respond to brief, outpatient or residential therapies as evidenced by sustained abstinence (or only minor relapses) and significant improvement in functioning following treatment. The five brief interventions tested in the CYT study were all associated with major reductions in substance use, symptoms of dependence or abuse, behavioral problems, family problems, school problems, and illegal activity. At 12 months, nearly a third of those youth completing CYT treatment were living in the community without any marijuana use or substance related problems. This reflects the good news of adolescent treatment outcome research: there are brief treatments that can have positive and enduring effects on the lives of many young people and their families.

The more ominous news within recent adolescent treatment outcome studies is documentation of the presence of many youth for whom substance use has already become a chronic condition and way of life. In the CYT study, 41% of the adolescents had failed earlier attempts to quit on their own, a quarter reported earlier admission to treatment, and a third were re-admitted to treatment in the year following their discharge from the CYT study. While such findings may stir therapeutic pessimism about the treatment of adolescent substance use disorders, we believe these findings instead confirm the need for different types and levels of care within the rubric of adolescent treatment.

Lesson 4: *Most treated adolescents will vacillate between periods of recovery and periods of drug use and drug-related problems in the year following their first treatment episode.* The portrayal of adolescent substance use treatment

as a brief clinical encounter that either works (complete and enduring abstinence following treatment) or does not work (any drug use following treatment) is inconsistent with the actual phenomenon of adolescent addiction and recovery. After CYT treatment, we found that 60% had some period of recovery: 29% went into recovery but later relapsed; 7% went into recovery, relapsed, but then resumed recovery; 15% did not respond to treatment right away but did get better during the subsequent months; and 9% recovered right away and stayed in recovery through the first year following treatment. These findings suggest that most adolescents are precariously balanced between recovery and reactivation of substance use in the months (and particularly the first 90 days) following completion of treatment. Most disturbing is the fact that addiction professionals are typically not present in the lives of treated adolescents and their families when the shifts to stable recovery or reactivation of substance use occurs in the weeks and months following acute intervention (Godley, et al., in press)..

Lesson 5: *Post-treatment monitoring and recovery support services offer promise in enhancing adolescent treatment outcomes (Stout, et al., 1999; Godley, et al, in press).* The fragile and fluid nature of the post-treatment recovery experience invites a new service model that shifts from the “diagnose, admit, treat, discharge” approach of the hospital emergency room to a sustained model of recovery management that more closely resembles the model of disease management used to treat diabetes, hypertension and asthma (McLellan, et al., 2000; White, Boyle, and Loveland, in press). These latter approaches focus on problem stabilization, recovery education, ongoing monitoring, professionally hosted support networks, and, when needed, early re-intervention (White and Dennis, 2002).

Lesson 6: *Greater attention must be given to the ecology of recovery from adolescent substance use disorders.* The advancements in the treatment of substance use disorders point toward the family, the peer culture, the school and the larger community as important mediators in post-treatment recovery or relapse. It is becoming increasingly clear that the substance-impacted adolescent cannot be treated without treating the environment in which he or she resides. What is needed is nothing short of building indigenous cultures of recovery that can nurture adolescents during and following their experiences in professionally-directed treatment. This requires constructing and utilizing recovery support systems within the world the adolescent inhabits: within the family, the school, the neighborhood, and the wider community. For those adolescents most deeply involved in substance use, the goal is to move them from a drug-saturated culture of addiction to a youth-oriented culture of recovery (White, 1996).

### **III. The Future**

In an earlier review (White, Dennis and Tims, 2002) we predicted the rapid development and wide dissemination of evidence-based, manual-guided approaches in the treatment of adolescent substance use disorders (also see Stevens and Morral, in press). We also predicted that mainstream treatment agencies would come to incorporate many of the key elements of treatment research infrastructure (standardized biopsychosocial assessment protocol, evidence-based treatment manuals, competency-based training of clinicians, model fidelity instruments /procedures, and rigorous clinical supervision). Based on this current review, we also envision a shift in the locus of treatment for those adolescents presenting patterns of high problem severity and complexity. This shift will be from sequential, self-encapsulated episodes of acute, institutional care to a more time-sustained, community support model of recovery management. We envision increased partnerships between addiction treatment agencies, youth and family service agencies, newly created community supports (e.g., recovery schools) and indigenous support structures (youth-focused mutual aid societies) to create recovery sanctuaries for drug-impacted youth and their families.

The treatment of adolescent substance use disorders is rapidly evolving from clinical folklore to a science-guided endeavor, and its focus is shifting from the institutional environment to the natural environment in which sustainable recovery must be inevitably rooted and nurtured. Providers of community-based youth and family services constitute important partners in the construction of supports for the long-term recovery of substance-involved adolescents and their families.

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