



Findings from the
Adolescent Kentucky Treatment Outcome Study
(AKTOS)

2014 FINDINGS AT
A GLANCE



INTRODUCTION

This Findings at a Glance report summarizes results from the annual outcome evaluation for the 2014 Adolescent Kentucky Treatment Outcome Study (AKTOS). The goal of AKTOS is to examine client satisfaction and outcomes for several specific targeted factors including: (1) substance use, (2) mental health, (3) education, (4) involvement with the justice system, and (5) recovery support.

The Adolescent Kentucky Treatment Outcome Study (AKTOS) examines treatment outcomes for youth (ages 12-17) who receive publicly funded substance abuse treatment in Community Mental Health Centers in Kentucky. A full report is published biannually to allow for analysis of a larger sample of adolescents across two fiscal years. Results for this study included data on 197 adolescent clients who attended publicly-funded substance abuse treatment programs in Kentucky between July 1, 2010 and June

30, 2012 and then completed a follow-up survey approximately 12 months later (an average of 329 days). The professionalism of the outcome study is reflected in a low refusal rate for follow-up participation (2%), and in the high follow-up rate (88%).

88%

Follow-up Rate

BACKGROUND

Of the 197 adolescents who completed a 12-month follow-up interview:

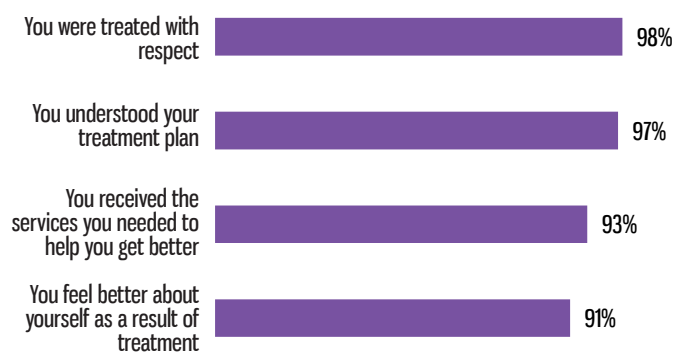
- Over two-thirds (68%) were male.
- The majority of follow-up clients were White (84%). A minority were African American/Black (9%) and 8% were Hispanic, American Indian, or multiracial.
- They were an average of 15.8 years old at the time of the intake interview. The majority of adolescents (66%) were 16 or 17 years old at intake.
- Clients reported first using alcohol at 13.3 years old and drugs at 12.9 years old.

SATISFACTION WITH TREATMENT

At follow-up, adolescents were asked to rate their level of satisfaction with the treatment program on a scale from 1 (worst treatment imaginable) to 10 (best treatment). The mean rating was 7.5, with over half of adolescents (59%) giving a rating between 8 and 10.

In the follow-up interview, the vast majority of adolescents agreed or strongly agreed with favorable statements about their treatment experience. In particular, clients overwhelmingly reported they understood the expectations of the treatment program, were treated with respect, received the services they needed to get better and felt better about themselves as a result of treatment.

FIGURE 1. PERCENTAGE OF ADOLESCENTS WHO AGREED/STRONGLY AGREED WITH THE FOLLOWING STATEMENTS ABOUT THE TREATMENT PROGRAM AT FOLLOW-UP (n = 197)



"I liked the people there, they genuinely wanted me to progress and cared."

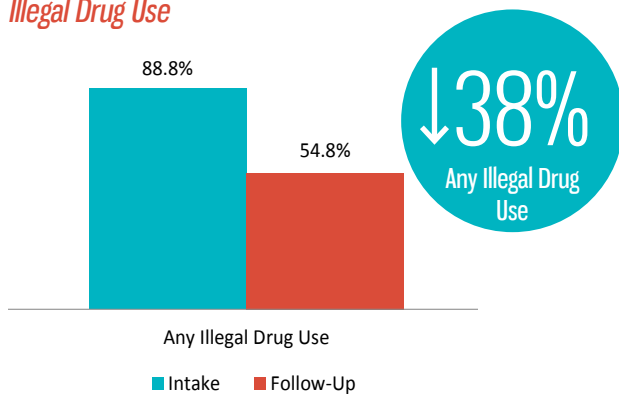
-AKTOS client on satisfaction with the program

TARGETED FACTORS AT INTAKE AND FOLLOW-UP

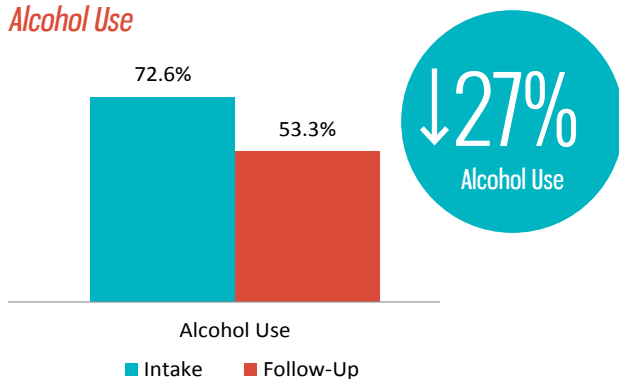
AKTOS clients had positive changes in substance use, mental health, and academic performance from intake to follow-up.

Substance Use

Illegal Drug Use



Alcohol Use



Among alcohol and drug users, the number of youth who met criteria for self-reported severe substance use disorder decreased significantly.



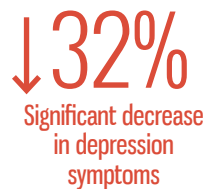
Almost half of adolescents who used alcohol (44%) had an Alcohol CS indicating a severe alcohol use disorder at intake. The number decreased significantly by 58% to 18% at follow-up.¹

A little less than one half of adolescents (48%) who used illicit drugs had a Drug CS indicating a severe drug use disorder at intake compared to only 10% at follow-up--a significant decrease of 79%.

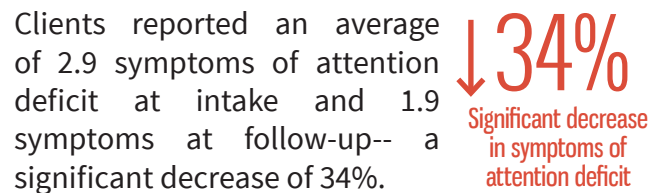


¹ Adolescents who were in a controlled environment all 30 days before intake or follow-up and individuals who did not use alcohol or drugs at both intake and follow-up were excluded from this analysis. Also, ASI CS are based on alcohol/drug use in the past 30 days and severity of problems associated with use and desire for treatment.

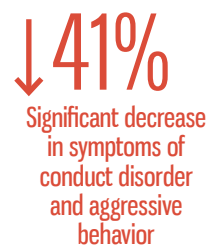
Mental Health Symptoms



At intake clients reported an average of 1.9 symptoms on the depression symptom scale and 1.3 symptoms at follow-up--a significant decrease of 32%.



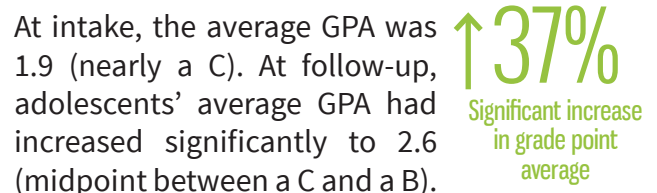
Clients reported an average of 2.9 symptoms of attention deficit at intake and 1.9 symptoms at follow-up-- a significant decrease of 34%.



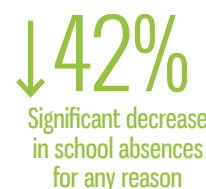
The average symptoms of conduct disorder and aggressive behavior significantly decreased by 41% from 3.4 at intake to 2.0 at follow-up.

Education

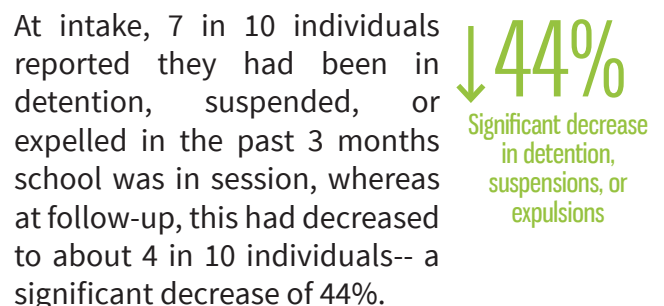
The majority of youth were enrolled in school at intake and follow-up.



At intake, the average GPA was 1.9 (nearly a C). At follow-up, adolescents' average GPA had increased significantly to 2.6 (midpoint between a C and a B).



Among those who were enrolled in school in the past 3 months at both intake and follow-up, the average number of school absences decreased significantly by 42% from 17.2 days at intake to 10.0 days at follow-up.



At intake, 7 in 10 individuals reported they had been in detention, suspended, or expelled in the past 3 months school was in session, whereas at follow-up, this had decreased to about 4 in 10 individuals-- a significant decrease of 44%.

Criminal Justice System Involvement

Criminal involvement, in terms of arrests and nights spent in jail or prison, remained unchanged after treatment.

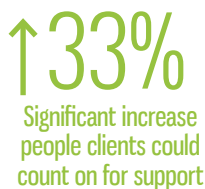
Nonetheless, the number of adolescents who reported being arrested and charged with a status offense or a probation violation decreased significantly from intake to follow-up.

The number of youth who self-reported they were under justice system supervision (e.g., drug court or probation), however, decreased significantly by 36% from 48% at intake to 31% at follow-up.



Recovery Support

The average number of people clients reported that they could count on for support increased significantly by 33%, from 8.8 people at intake to 11.7 people at follow-up.



INVESTING IN THE FUTURE

Changing adolescents' trajectories from heavier substance use and substance use disorders to abstinence has meaningful effects on the individual's life but also is likely to have substantial societal benefits by increasing the individual's future capabilities and productivity. For example, higher levels of educational attainment have higher economic benefits in terms of wages and earnings (U.S. Bureau of Labor Statistics, 2014). For this sample, the estimated annual earnings based on educational attainment for individuals who were 18 years old at follow-up—the average age of high school graduation—were compared to the cost of substance abuse treatment. Estimates suggest that within 1.7 years the money spent on treatment for these youth would be returned to the state general fund through tax revenues from wages and earnings.

CONCLUSION

Substance use disorders in youth are best understood within the context of several interrelated problems^{2,3}, such as childhood adversity and victimization⁴, comorbid psychiatric disorders⁵, and problem behaviors (i.e., delinquency^{2,6}). The 197 youth who completed intake and follow-up interviews came into treatment with significant problems. For example, the majority had used alcohol, drugs, and tobacco, had an average grade of C or lower, had been in school detention, suspended, or expelled from school, had been involved with the justice system, began using alcohol or drugs before the age of 14, and had self-reported symptoms of depression, attention deficit, and behavior problems.

Findings from the AKTOS 2014 report indicate successful treatment experiences for many youth, with significant reductions in substance use, substance use severity, decreases in mental health problems, improved academic performance, and fewer youth with school disciplinary problems. Slowing down or stopping youth's substance use trajectories may lead to substantial increases in education, lower psychiatric comorbidities, and lower criminal behavior and involvement in the justice system—all of which may have significant effects on the youth's positive long-term development.

² Jessor, R., and Jessor, S.L. 1997. *Problem Behavior and Psychosocial Development: A Longitudinal Study of Youth*. New York: Academic Press.

³ Teplin, L., Abram, K., McClelland, G., Dulcan, M., & Mericle, A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry*, 59, 1133-1143.

⁴ Tonmyr, L., Thornton, T., Draca, J., & Wekerle, C. (2010). A review of childhood maltreatment and adolescent substance use relationship. *Current Psychiatry Reviews*, 6(3), 223-234.

⁵ Rohde, P., Lewinsohn, P. M., & Seeley, J. R. (1996). Psychiatric comorbidity with problematic alcohol use in high school students. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35(1), 101-109.

⁶ Kuperman, S., Schlosser, S., Kramer, J., Bucholz, K., Hesselbrock, V., Reich, T., et al. (2001). Developmental sequences from disruptive behavior diagnosis to adolescent alcohol dependence. *American Journal of Psychiatry*, 158, 2022-2026.