

Treating Youth Substance Use

An Inventory of Evidence Based Practices

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Introduction and Purpose

The Alcohol & Drug Abuse Institute was tasked by the Washington State Division of Behavioral Health and Recovery (DBHR) to create an inventory of evidence-based programs and practices (EBPs) for treating substance use in adolescents and (12-17 years old) and young adults (18-20 years old). A similar effort by the Washington State Institute for Public Policy (WSIPP) emphasized benefit-cost analysis; unfortunately, the state of the science is such that many apparently effective treatments do not have sufficient data to permit benefit-cost analysis. Thus, benefit-cost analysis was considered beyond the scope of our review.

In this analysis, we take into consideration all other criteria contained in the RCW definitions of “evidence-based,” “research-based,” and “promising practices” (definitions below). Treatments that do not meet criteria for these designations are considered “unsupported.” Building on our previous work, we also provide information from organizations that have rated effective programs/practices and identify reviews of the literature on effective treatment interventions for adolescent substance use. A bibliography of sources appears at the end of this report.

For our ratings of treatments, we focused exclusively on substance use-related outcomes. Treatments discussed may have stronger or weaker evidence for problems associated with adolescent substance use, such as family functioning, mental health, recidivism, etc. A related brief summary is also available:

<http://adai.uw.edu/pubs/pdf/2016youthsubstusebrief.pdf>

Definitions Applied According to RCW 71.24.025

Evidence-based: A program or practice that has been:

1. tested in heterogeneous or intended populations [diversity] with
2. multiple randomized, or statistically controlled evaluations, or both; or one large multiple site randomized, or statistically controlled evaluation, or both, [multiple RCTs] where
3. the weight of the evidence from a systemic review demonstrates sustained improvements in at least one outcome [sustained improvements]. "Evidence-based" also means a program or practice that
4. can be implemented with a set of procedures to allow successful replication in Washington and, when possible, is determined to be cost-beneficial.

Research-based: A program or practice that has been:

1. tested with a single randomized, or statistically controlled evaluation, or both [single RCT],
2. demonstrating sustained desirable outcomes; or where the weight of the evidence from a systemic review supports sustained outcomes [sustained outcomes].

Promising practice: A program or practice that:

1. is based on statistical analyses or a well-established theory of change,
2. shows potential for meeting the evidence-based or research-based criteria [promising].

Although RCW 71.24.025 does not specify criteria for an unsupported treatment, we define it as follows:

Unsupported: A program or practice, the weight of evidence for which suggests that the intervention is likely to be ineffective [not supported].

Overview of ADAI Ratings

All treatments examined were based on a logic model or well-established theory of change, and all treatments specify procedures that allow implementation and replication in Washington. Variability occurs among the other criteria.

Treatment	ADAI Rating	Diversity	Multiple RCTs	Single RCT	Sustained Outcomes	Promising	Not Supported
ACRA	E	x	x		x		
ACC	R	x	x			x	
ACCU	P			x		x	
BI/MI	E	x	x		x		
BSFT	P	x	x			x	
CBOP	P	x		x		x	
CBT	E	x	x		x		
CIFFTA	P	x		x		x	
CRAFT	P	x				x	
CM	R	x	x		x		
EBFT	R	x	x			x	
FBT	R	x		x	x		
FSN	U	x		x			x
FFT	E	x	x		x		
MET	P	x	x			x	
MET/CBT	E	x	x		x		
MET/CBT-A	P	x		x		x	
MDFT	E	x	x		x		
MST	P	x	x			x	
SSA	P	x		x		x	
SOFT	P	x		x		x	
SET	P	x		x		x	
TMCU	R	x	x		x		
7C	P	x		x		x	

E = Evidence-based, R = Research-based, P = Promising, U = Unsupported

Adolescent Community Reinforcement Approach (ACRA)	
Contact information	Program Developer: Susan H. Godley, PhD, 309-827-6026, sgodley@chestnut.org
Website	http://www.chestnut.org/LI/ACRAACC
Description of Intervention	<p>The Adolescent Community Reinforcement Approach (ACRA) is a developmentally-appropriate behavioral treatment for youth and young adults 12 to 24 years old with substance use disorders. ACRA seeks to increase the family, social, and educational/vocational reinforcers to support recovery. This intervention has been implemented in outpatient, intensive outpatient, and residential treatment settings. ACRA includes guidelines for three types of sessions: individuals alone, parents/caregivers alone, and individuals and parents/caregivers together. According to the individual's needs and self-assessment of happiness in multiple life areas, clinicians choose from a variety of ACRA procedures that address, for example, problem-solving skills to cope with day-to-day stressors, communication skills, and active participation in positive social and recreational activities with the goal of improving life satisfaction and eliminating alcohol and substance use problems. Practicing new skills during sessions is a critical component of the skills training used in ACRA. Every session ends with a mutually-agreed upon homework assignment to practice skills learned during sessions. Often these homework assignments include participation in pro-social activities. Likewise, each session begins with a review of the homework assignment from the previous session. See http://www.chestnut.org/LI/ACRA-ACC#DescriptionACRA</p>
Manual	<p>Godley, S. H., Meyers, R. J., Smith, J. E., Godley, M. D., Titus, J. M., Karvinen, T., Dent, G., Passetti, L., & Kelberg, P. (2001). <i>The Adolescent Community Reinforcement Approach for Adolescent Cannabis Users, Cannabis Youth Treatment (CYT) Series, Volume 4</i>. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.</p> <p>http://www.chestnut.org/Portals/14/PDF_Documents/Lighthouse/CYT/Products/ACRA_CYT_v4.pdf</p>
Therapy format	Family
Therapy type	Cognitive-behavioral; Social/Coping skills
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Dennis et al., 2004, Trial 2) – support for ACRA: 300 adolescents with cannabis-related disorders (81% male; 49% White) were randomly assigned to receive ACRA, five sessions of Motivational Enhancement Therapy/Cognitive Behavioral Therapy (MET/CBT5), or Multi-Dimensional Family Therapy (MDFT). Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months thereafter.</p> <ul style="list-style-type: none"> • There were no significant differences among the treatments. ACRA had the highest percent of participants in recovery at 12 months: ACRA = 34%, MET/CBT5 = 23%, MDFT = 19%, condition effect

Cohen's $f = 0.16$.

- ACRA was found to be more cost-effective than the other interventions. Cost per days abstinent: MET/CBT5 = \$9.00, ACRA = \$6.62, MDFT = \$10.38. Cost per person in recovery: MET/CBT5 = \$6611, ACRA = \$4460, MDFT = \$11775

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., ... & Funk, R. (2004). The Cannabis Youth Treatment (CYT) Study: main findings from two randomized trials. *Journal of Substance Abuse Treatment, 27*(3), 197-213.

Study 2 (Slesnick et al., 2007) – support for ACRA:

180 homeless adolescents with substance use disorder (66% male; 41% White) were randomly assigned to receive ACRA or TAU. Participants were assessed with the Form 90 and measures of depression, internalizing behavior, and social stability at baseline, 3- and 6-months. Due to missed appointments, many participants required 6 months to complete the ACRA intervention. At 6 months:

- ACRA showed a greater decrease in drug use ($d = 1.00$) than TAU ($d = .41$)
- ACRA showed a 37% reduction in substance use (from 67% days use to 43%) while TAU showed a 17% reduction in substance use (60% to 50%)
- ACRA showed a greater decrease in depression ($d = .94$) than TAU ($d = .41$)
- ACRA showed a greater decrease in internalizing behaviors ($d = 1.09$) than TAU ($d = .51$)
- ACRA showed a greater increase in social stability ($d = .63$) than TAU ($d = .20$)

Slesnick, N., Prestopnik, J. L., Meyers, R. J., & Glassman, M. (2007). Treatment outcome for street-living, homeless youth. *Addictive Behaviors, 32*(6), 1237-1251.

Study 3 (Slesnick et al., 2013) – modest support for ACRA:

179 runaway adolescents with substance use disorder (48% male; 26% White) were randomly assigned to receive 14 sessions of ACRA, 4 sessions of Motivational Interviewing (MI), or 14 sessions of Ecologically Based Family Therapy (EBFT). Participants were assessed with the Form 90 at baseline, 3, 6, 9, 12, 18, 24 months post-baseline.

- Participants showed improvements in their substance use in all treatment conditions, and none of the interventions was superior to another.
- 55% showed clinically significant change in SU at 6 months, 29.2% had some reduction, and 16% showed deterioration.

Slesnick, N., Erdem, G., Bartle-Haring, S., & Brigham, G. S. (2013). Intervention with substance-abusing runaway adolescents and their families: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 81*(4), 600.

Study 4 (Slesnick et al., 2015) – support for ACRA:

270 homeless adolescents and young adults with substance use disorder (66% male; 41% White) were randomly assigned to receive ACRA, Motivational Enhancement Therapy (MET), or case management.

	<p>Participants were assessed with the Form 90.</p> <ul style="list-style-type: none"> • No significant differences were found between treatment conditions in ITT analyses. All three treatments exhibited medium to high effect sizes ($d_s = -0.29$ to -0.71) on frequency of SU from baseline to the 6-month follow-up. • In the treated sample, ACRA showed a greater reduction in frequency of drug use than case management • Over 50% of participants in ACRA improved with regard to frequency of alcohol or drug use; about 25% stayed the same and about 25% deteriorated. Results were comparable for MET and case management. <p>Slesnick, N., Guo, X., Brakenhoff, B., & Bantchevska, D. (2015). A Comparison of Three Interventions for Homeless Youth Evidencing Substance Use Disorders: Results of a Randomized Clinical Trial. <i>Journal of Substance Abuse Treatment</i>, 54, 1-13.</p>
Rating Lists	<p>CEBC: 2 = Supported by research evidence</p> <p>NREPP: Rated 3.8 on recovery from substance use; on other outcome measures, e.g. abstinence from use, linkage to and participation in continuing care were 3.0 – 4.0.</p> <p>ODJJP: Effective</p>
ADAI Rating	Evidence-based
Comment	<p>ACRA is considered to be evidence-based. Favorable randomized controlled evaluations of ACRA have been conducted by two independent research teams. ACRA received its strongest support in work by Slesnick and colleagues (2013, 2015), who did not develop the intervention. Efficacy has been demonstrated among minorities (African-American and Hispanic/Latino youth) and among runaway and homeless adolescents as well as among those with presumably stable living environments. Although many research participants have had alcohol use disorders, ACRA has been studied primarily among youth with drug use disorders, especially cannabis use disorders.</p>

Assertive Continuing Care (ACC)	
Contact information	Program Developer: Susan H. Godley, PhD, 309-827-6026, sgodley@chestnut.org
Website	http://www.chestnut.org/LI/ACRAACC
Description of Intervention	<p>Assertive Continuing Care (ACC) uses some ACRA procedures and includes home visits and case management following a primary treatment episode for substance abuse or dependence. ACC is primarily used as continuing care. As such, it stresses rapid initiation of services after discharge from residential, intensive outpatient, or regular outpatient treatment in order to prevent or reduce the likelihood of relapse. In clinical trials research, ACC was evaluated for a 90-day period, but it can be extended for additional weeks</p>

	or months as needed. See http://www.chestnut.org/LI/ACRA-ACC#DescriptionACC
Manual	Godley SH, Meyers RJ, Smith JE, et al. <i>The Adolescent Community Reinforcement Approach for Adolescent Cannabis Users. Cannabis Youth Treatment Series, vol. 4</i> , DHHS Pub. No. (SMA) 01-3489. Rockville, MD: SAMHSA, 2001. http://www.chestnut.org/Portals/14/PDF_Documents/Lighthouse/CYT/Products/ACRA_CYT_v4.pdf
Therapy format	Family
Therapy type	Cognitive-behavioral; Social/Coping skills
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1, Godley et al. (2002) – modest support for ACC 114 adolescents (76% male; 74% White) who stayed at least 7 days in residential treatment were randomly assigned to receive either usual continuing care (UCC) or usual continuing care+ACC (ACC). Participants were assessed with the GAIN at baseline and three months after discharge.</p> <ul style="list-style-type: none"> • Number of days using alcohol decreased 64% in the ACC condition versus 18% in the UCC condition, a significant, medium effect (Cohen's $f=.24$) • Number of days using marijuana decreased 60% in the ACC condition versus 47% in the UCC condition, a trend that did not reach significance • The proportion of participants abstinent from alcohol at 3 months was 50% in the ACC condition versus 43% in the UCC condition, a trend that did not reach significance • The proportion of participants abstinent from marijuana at 3 months was 52% in the ACC condition versus 31% in the UCC condition, a significant, medium effect (Cohen's $d = .43$) • Mean latency to first alcohol use after treatment was 83 days in the ACC condition versus 63 days in the UCC condition, a trend that did not reach significance • Mean latency to first marijuana use after treatment was 90 days in the ACC condition versus 31 days in the UCC condition, a significant small-medium effect (Cohen's $d = .39$) <p>Godley, M. D., Godley, S. H., Dennis, M. L., Funk, R., & Passetti, L. L. (2002). Preliminary outcomes from the assertive continuing care experiment for adolescents discharged from residential treatment. <i>Journal of Substance Abuse Treatment, 23</i>(1), 21-32.</p> <p>Study 2, Godley et al. (2007), update of Study 1 – modest support for ACC 183 adolescents (71% male; 73% White) who stayed at least 7 days in residential treatment were randomly assigned to receive either usual continuing care (UCC) or usual continuing care+ACC (ACC). Participants were assessed with the GAIN at baseline and 3, 6, and 9 months after discharge.</p> <ul style="list-style-type: none"> • In the 90 days after discharge, 94% of those in ACC vs. 54% of those in UCC linked to continuing care services, a significant, large effect ($d=1.07$) • Odds of high general continuing care adherence were significantly higher ($OR = 3.35, P < 0.05$) for ACC than UCC

- Percent remaining abstinent from alcohol at 3 months was 50% in the ACC condition versus 44% in the UCC condition, a non-significant, small effect (d=.13)
- Percent remaining abstinent from alcohol at 9 months was 31% in the ACC condition versus 26% in the UCC condition, a non-significant, small effect (d=.10)
- Percent remaining abstinent from marijuana at 3 months was 52% in the ACC condition versus 39% in the UCC condition, a non-significant, small effect (d=.29)
- Percent remaining abstinent from alcohol at 9 months was 41% in the ACC condition versus 26% in the UCC condition, a significant, small effect (d=.32)

Godley, M. D., Godley, S. H., Dennis, M. L., Funk, R., & Passetti, L. L. (2007). The effect of assertive continuing care on continuing care linkage, adherence and abstinence following residential treatment for adolescents with substance use disorders. *Addiction, 102*(1), 81–93.

Study 3, Godley et al., 2010 – no support for ACC

Longer-term outcomes of study reported in Godley et al., 2002. 320 adolescents (76% male; 73% White, 73% involved in criminal justice system) were randomly assigned. Half received a primary treatment of Motivational Enhancement + Cognitive-Behavioral Therapy and half received Chestnut’s Bloomington Outpatient program as their primary treatment. Half of each of these groups received ACC aftercare. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months after admission. There were no significant findings with regard to the incremental effectiveness of ACC following outpatient treatment.

Godley, S. H., Garner, B. R., Passetti, L. L., Funk, R. R., Dennis, M. L., & Godley, M. D. (2010). Adolescent outpatient treatment and continuing care: Main findings from a randomized clinical trial. *Drug and Alcohol Dependence, 110*(1), 44-54.

Study 4, Godley et al., 2014 – modest support for ACC

337 adolescents (63% male; 70% White) were randomly assigned to varying continuing care conditions following residential treatment: usual continuing care (UCC), ACC, Contingency Management (CM), or CM+ACC. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months after discharge. Outcomes were examined across the 12 months after discharge.

- Mean percent of days in a controlled environment was lower in the ACC condition (15.7) than the UCC condition (21.3), a significant, small effect (Cohen's d = -.25)
- Mean percent of days abstinent from alcohol was higher in the ACC condition (78.3) than the UCC condition (71.1), a significant, small effect (Cohen's d = .30)
- Mean percent of days abstinent from marijuana was higher in the ACC condition (66.2) than the UCC condition (58.0), a significant, small effect (Cohen's d = .28)
- Proportion “in remission” at 12 months was higher in the ACC condition (27%) than the UCC condition (15%), a significant, medium effect (d = .51)

Godley, M. D., Godley, S. H., Dennis, M. L., Funk, R. R., Passetti, L. L., & Petry, N. M. (2014). A randomized trial of assertive continuing care and contingency management for adolescents with substance use disorders. *Journal of Consulting and Clinical Psychology, 82*(1), 40-51.

Rating Lists	WSIPP: Research-based
ADAI Rating	Promising
Comment	ACC is considered to be research-based. We identified four randomized controlled trials examining its effectiveness, all conducted by the developers. Study 3 reported longer-term outcomes of Studies 1 and 2 and showed null effects for ACC, undermining the favorable results reported in Studies 1 and 2. Study 4 showed significant small to medium effects compared to usual continuing care.

Adolescent Cannabis Check Up (ACCU) – an adaptation of Motivational Enhancement Therapy	
Contact information	Program Developer: Greg Martin, MA, Wendy Swift, PhD, and Jan Copeland, PhD
Website	http://ndarc.med.unsw.edu.au/resource/adolescent-cannabis-check-brief-intervention-young-cannabis-users-findings-and-treatment
Description of Intervention	The Adolescent Cannabis Check Up is a manualized motivational enhancement intervention targeting young cannabis users and consisting of 2-4 sessions. An optional recruitment session engages a concerned other (e.g., parent) to discuss their concerns about the adolescent's cannabis use. Intended to enlist concerned others' assistance in recruitment of adolescents into the study, the session includes assessment, education on cannabis, and discussion of general communication skills and tips on engaging a young person in the check-up. The first session with the adolescent consists of a structured interview designed to assess cannabis and other substance use history, including pattern of use and cannabis abuse and dependence, perceived pros and cons of continued use, expectancies about increased/decreased use, perception of risk associated with cannabis, and stage of change. The second session with the adolescent is a feedback session using a personalized feedback report in a motivational interviewing style, occurring approximately 1 week after the assessment and consisting of structured feedback of information, including the amount of cannabis used, comparison with age-specific normative data, pros and cons of using cannabis, and perception of interactions between cannabis use and individual goals. The goal is to assist a young person to make a detailed and objective assessment of his/her cannabis use and the role it plays in his/her life without feeling pressured to change or being labeled as a problematic user. An optional third session with the adolescent introduces cognitive-behavioral strategies for quitting or reducing cannabis use, including discussion of cannabis dependence, recognition of personal triggers, managing craving, goal setting, planning for change, behavioral self-monitoring, and relapse prevention.
Manual	Martin, G., Swift, W., Copeland, J. (2004). The Adolescent Cannabis Check-Up: A brief intervention for young cannabis users. Findings and treatment manual. Technical Report No.200. (Sydney, National Drug and Alcohol Research Centre).

	https://ndarc.med.unsw.edu.au/resource/adolescent-cannabis-check-brief-intervention-young-cannabis-users-findings-and-treatment
Therapy format	Individual
Therapy type	Motivational enhancement/motivational interviewing
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1, Martin & Copeland, 2008 – Strong preliminary support for ACCU</p> <p>The ACCU was initially tested in Australia, where it was developed. 40 adolescents aged 14 to 19, who used cannabis at least once in the past month (67% male; 87.5% born in Australia, nonindigenous), were randomly assigned to either the ACCU condition or a 3-month delay waitlist control condition. Participants were assessed at baseline and 3 month follow-up. Measures included the timeline followback assessment of cannabis use, GAIN items for cannabis abuse and dependence, and the Severity of Dependence Scale.</p> <ul style="list-style-type: none"> • ACCU showed significantly better improvements compared to the control group with regard to change scores for days of use in the past 90 days (-19.6 vs. -1.2; $F = 4.97$, $p = .032$), amount used in terms of “cones” (i.e., bong/water pipe bowls) per week (-29.0 vs. -14.0; $U = 111.0$, $p = .021$), and the number of DSM-IV dependence criteria reported (-2.1 vs. -0.6; $F = 4.63$, $p = .04$). • Between-group effects sizes were moderate for the days of use ($d = .71$) and number of dependence symptoms ($d = .70$), and small for the mean quantity of use measure ($d = .22$). • The proportion of the ACCU group meeting DSM-IV criteria for dependence at follow-up reduced from 100% to 65% while the control group reduced from 85% to 80%. <p>Martin, G., & Copeland, J. (2008). The adolescent cannabis check-up: randomized trial of a brief intervention for young cannabis users. <i>Journal of Substance Abuse Treatment</i>, 34(4), 407-414.</p> <p>Study 2, de Gee et al., 2014 – No support for ACCU</p> <p>The ACCU was translated into Dutch (titled “Weed Check” in Dutch) and tested in the Netherlands, without the optional material included in the intervention. Those who expressed a desire to change were referred for treatment and not followed thereafter. 119 adolescents aged 14-21, who used cannabis at least weekly (74% male; 79% of Dutch descent), were randomly assigned to either the ACCU condition or an information session control condition. Participants were assessed at baseline and 3 month follow-up. Measures included the Cannabis Use Problems Identification Test and the Severity of Dependence Scale.</p> <ul style="list-style-type: none"> • Changes from baseline to follow-up in quantity and frequency of cannabis use and symptoms of dependence were in the predicted direction, but the effect sizes were very small and not significant. <p>de Gee, E. A., Verdurmen, J. E., Bransen, E., de Jonge, J. M., & Schippers, G. M. (2014). A randomized controlled trial of a brief motivational enhancement for non-treatment-seeking adolescent cannabis users. <i>Journal of Substance Abuse Treatment</i>, 47(3), 181-188.</p>
Rating Lists	None

ADAI Rating	Promising
Comment	Unless and until this intervention is tested further, ACCU is considered to be a promising intervention. A preliminary RCT by the developers provided strong support for the intervention compared to a 3-month delayed waitlist control group. However, such results have not yet been replicated, and there were null findings when the intervention was translated to Dutch and tested in a larger RCT in the Netherlands. It is unclear why the results of the studies were inconsistent. It could be due to poor translation, differences in populations, or some other factors. Notably, the Dutch study did not include the optional recruitment session with a concerned other and did not include the optional CBT component; those who expressed a desire to change were referred for treatment and not followed thereafter. Furthermore, the Australian study did not examine whether there were differences in outcomes between those who received the optional procedures and those who did not or report what percentages fell into the former or latter groups. The optional material could have been driving the differences between groups. Further studies are needed to determine whether ACCU has the potential to be considered research- or evidence-based.

Brief Intervention/Motivational Interviewing (BI/MI)	
Contact information	Program Developer: William R. Miller, Ph.D., and Stephen Rollnick, Ph.D.
Website	http://motivationalinterviewing.org/
Description of Intervention	“Motivational interviewing is a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion...Motivational interviewing is nothing more than, or less than, a helpful conversation about change. Its based upon the kind of helpfulness observed in teachers, coaches, and helpers of all kinds, with an additional element: the person in the helping role uses listening and other skills to evoke a person’s own good reasons to change. Its focus is on the language people use when they talk about change. Much like a form of dancing, it can be described in terms of both style and technical detail. How and why it works, when it does, is an open question. MI was developed inductively, from clinical practice in very tough conversations about change, and provides a route to change that avoids confrontation, argument and time wasted on often fruitless efforts to instill motivation in others.” See http://www.stephenrollnick.com/about-mi.php .
Manual	There is no particular manual specifying MI for substance use problems among adolescents. Different research groups have adapted MI for substance use problems in this population in different ways. The primary textbook for MI is Miller, W. R., & Rollnick, S. (2012). <i>Motivational Interviewing: Helping People Change</i> . New York, NY: Guilford Press.

Therapy format	Individual, group
Therapy type	Rogerian, cognitive-behavioral
Setting	Any
Evaluations and Findings	<p>Adaptation by McCambridge and Strang (2003) The 60-minute single-session intervention uses a menu of topics for discussion, from which selections are made according to the course of the interview. Initial discussion reviews the entire range of drugs being used by the participant. Then the interviewer directs the focus to particular areas of risk, problems, or concerns, negotiated according to the participant's interest. After rapport building, positives and negatives about each drug are elicited and relationships between actual and potential drug use consequences and non-drug values and goals are explored. MI strategies (reflective listening, affirmation, open questions, and summaries) are employed to elicit change talk. The objective is to create an opportunity for the participant to identify problems and concerns and reflect on options for change. Discussion may also include decisional balance exercises regarding whether to change a specific aspect of drug use focused on improving the quality of the decision to change and planning for change itself. McCambridge, J. & Strang, J. (2003) Development of a structured generic drug intervention model: a brief application of motivational interviewing with young people. <i>Drug and Alcohol Review</i>, 22, 391-399.</p> <p>Study 1, McCambridge & Strang, 2004 – Strong preliminary support for MI 200 adolescents aged 16 to 20, who reported weekly cannabis or stimulant use within the past 3 months (55% male; 38% White, 50% Black), were recruited from London, UK, colleges and randomly assigned in clusters (grouped according to their referring friend) to either the MI condition or education as usual (EAU). In the MI condition, participants underwent a single session of MI with the first author. Participants were assessed at baseline and 3 month follow-up. Measures included the Severity of Dependence Scale and unspecified measures of drug and alcohol-related problems. Findings included a number of significant effects:</p> <ul style="list-style-type: none"> • Cigarette smoking: EAU increased 12% (35.0-39.4 cigs/wk); MI decreased 21% (31.9-25.2 cigs/wk) • Alcohol use: EAU increased 12% (12.7-14.2 units/wk), MI decreased 39% (12.7-7.7 units/wk) • Cannabis use: EAU increased 27% (13.3-16.9 times/wk), MI decreased 66% (15.7-5.4 times/wk) • On average at followup, MI participants used almost 1/8 oz less cannabis per week compared to EAU participants • On average at followup, MI participants used cannabis 4 days per month less compared to EAU participants • Other nonstimulant drug use: EAU number using increased from 21-33% of participants; MI number using decreased from 15%-11% • Stimulant use: No significant differences between groups <p>McCambridge, J., & Strang, J. (2004). The efficacy of single</p>

session motiv

perceptions of drug
52.

randomized trial. *Addiction*, 99(1), 89-96

Study 2, McCambridge, Slym, & Strang, 2008 – Weak support for MI

326 adolescents aged 16 to 19, who reported weekly cannabis use (69% male; 11% White, 52% Black, 20% Asian), were recruited from London, UK, colleges and randomly assigned to either the MI condition or drug information and advice. In the MI condition, participants underwent a single session of MI, which was streamlined compared to McCambridge & Strang (2004), focused on cannabis, and delivered by one of several trained practitioners. Participants were assessed at baseline and 3 and 6 month follow-ups. Measures included the Fagerstrom Test of Nicotine Dependence (FTND), Alcohol Use Disorders Identification Test (AUDIT), and Severity of Dependence Scale (SDS) for cannabis. There were no significant differences between conditions and substantial variability in outcomes by practitioner in both conditions. Overall, the mean level of fidelity to MI was not high. Change over time was observed across conditions:

- Cigarette smoking decreased from 19.5 days/month to 18.1 days to 18.0 days/month.
- FTND score reduced from 2.2 to 1.9 at 6 months.
- Alcohol consumption reduced from 4.4 to 3.8 units per week.
- AUDIT score reduced from 5.4 to 4.6 to 4.7.
- Cannabis use frequency decreased from 17.8 to 15.2 to 14.2 days per month.
- SDS score decreased from 4.4 to 3.4 to 3.5.

McCambridge, J., Slym, R. L., & Strang, J. (2008). Randomized controlled trial of motivational interviewing compared with drug information and advice for early intervention among young cannabis users. *Addiction*, 103(11), 1809-1818.

Study 3, Goti et al., 2009 – Weak support for MI

Goti et al., 2009, conducted a study of MI in Barcelona, Spain, based on – but not identical to – McCambridge and Strang's (2003) approach. Their intervention consisted a single 60-minute session of MI with the participant and one individual psychoeducational session with a parent/mentor. 143 adolescents aged 12 to 17, who were referred for psychiatric care and reported substance use (24% male; unknown minority representation), received treatment as usual (TAU); approximately half were randomly assigned to the TAU+MI condition. In the MI condition, participants underwent a single session of MI, which was streamlined compared to McCambridge & Strang (2004), focused on cannabis, and delivered by one of several trained practitioners. Participants were assessed at baseline and 1 month follow-up. Measures included a structured interview which categorized substance use pattern as 1, no use; 2, occasional use; 3, regular use; 4, substance-use problems (SUP); and 5, diagnosis of abuse or dependence according to DSM-IV-TR criteria. Participants also completed the Teen Addiction Severity Index and measures of knowledge about psychoactive substances, risk perception, use-related problems, and intention to use. The authors stated that they used an intention to treat approach to analyze the data, but this did not appear to be the case as data

were not presented for all participants who were randomized. 103 participants (59 in TAU+MI, 44 in TAU-MI) completed the study.

- At follow-up, both groups exhibited increases in knowledge about drugs, but the increase was pronounced in the TAU+MI group.
- The TAU+MI group exhibited an increase in risk perception, but the TAU-MI group did not.
- There were no significant differences between groups in substance use, intention to use, or use-related problems.

Goti, J., Diaz, R., Serrano, L., Gonzalez, L., Calvo, R., Gual, A., & Castro, J. (2010). Brief intervention in substance-use among adolescent psychiatric patients: a randomized controlled trial. *European Child & Adolescent Psychiatry*, 19(6), 503-511.

Adaptation to a School Setting by Winters & Leitten (2001) – Teen Intervene

Teen Intervene consists of 2 60-minute sessions delivered by a therapist using an MI style. Session 1 focuses on eliciting information about the student's substance use and related consequences, evaluating the student's willingness to change, examining the causes and benefits of change using a decisional balance exercise, and discussing what goals for change the student would like to select and pursue. The student is allowed to pursue abstinence or reduce substance use goals in a manner consistent with an MI approach. Session 2 focuses on reviewing the student's progress toward the agreed-upon goals by identifying high-risk situations associated with difficulty in achieving the goals, discussing strategies to address barriers toward goal attainment, reviewing where the student is in the stage of change process, and negotiating either the continuation of goals or advancement toward more ambitious goals of substance use reduction. When a parent/guardian is involved, a third session is conducted with the parent/guardian only using the same MI interviewing style. Session 3 focuses on the adolescent's substance use problem, parent attitudes and behaviors regarding substance use by the adolescent, parent monitoring and supervision to promote progress toward the adolescent's intervention goals, and healthy drug use behaviors and attitudes by the parent.

Winters, K. C., & Leitten, W. (2001). Brief intervention manual. Minneapolis: University of Minnesota.

Study 1, Winters & Leitten, 2007 – Support for MI, especially including a parent/guardian

79 students aged 13 to 17, who were referred for by the school as a possible drug user and met DSM-IV criteria for substance abuse but did NOT meet DSM-IV criteria for substance dependence (62% male; 83% White), were randomly assigned to a 2 session MI condition with the adolescent only (BI-A), a 3 session intervention with the adolescent in Sessions 1 and 2 and parent/guardian in Session 3 (BI-AP), or assessment only control (CON). Participants were assessed at baseline and 6 month follow-ups. Measures included the Timeline Followback and the Personal Consequences Scale. Outcomes examined at 6 month follow-up included 1) number of alcohol use days, 2) number of alcohol binge days, 3) number of illicit drug use days, and 4) negative consequences.

- At 6-month follow-up, between group effects were found for all outcomes, with effect sizes (eta squared) ranging from .29-.60
- BI-AP had significantly lower scores on all outcome measures (3.8, 1.2, 9.6, 11.3, respectively) compared to CON (5.7, 2.4, 13.4, 13.9, respectively)
- BI-A had significantly lower scores compared to CON on number of alcohol use days (4.5) and personal consequences (11.7).
- BI-AP was significantly better than BI-A number of alcohol use days.

Winters, K. C., & Leitten, W. (2007). Brief intervention for drug-abusing adolescents in a school setting. *Psychology of Addictive Behaviors*, 21(2), 249.

Study 2, Winters et al., 2012 – Strong support for MI, with or without parent/guardian

318 students aged 12 to 18, who were referred for by the school as a possible drug user and scored at least 26 on a screening instrument indicating at least a mild substance abuse problem (52% male; 68% White), were randomly assigned to a 2 session MI condition with the adolescent only (BI-A), a 3 session intervention with the adolescent and parent/guardian (BI-AP), or assessment only control (CON). Participants were assessed at baseline and 6 month follow-ups. Measures included the Timeline Followback, Adolescent Diagnostic Interview, and the Personal Consequences Scale.

- At 6-month follow-up, between group effects were found for all outcomes, with effect sizes (eta squared) ranging from .02-.17
- BI-A and BI-AP had significantly better scores compared to CON on number of alcohol use days, number of cannabis use days, alcohol abuse symptoms, alcohol dependence symptoms, and negative consequences.
- BI-AP showed significantly better scores compared to BI-A and CON on cannabis use days, cannabis abuse symptoms, and cannabis dependence symptoms.
- 53.5% of BI-A and 47.3% of BI-AP were abstinent from alcohol for 90 days, compared to 26.1% of CON.
- 51.0% of BI-A and 62.5% of BI-AP were abstinent from cannabis for 90 days, compared to 37.0% of CON.
- 72.9% of BI-A and 85.0% of BI-AP were absent alcohol abuse symptoms for 6 months, compared to 60.9% of CON.
- 61.4% of BI-A and 77.5% of BI-AP were absent cannabis abuse symptoms for 6 months, compared to 56.5% of CON.

Winters, K. C., Fahnhorst, T., Botzet, A., Lee, S., & Lalone, B. (2012). Brief intervention for drug-abusing adolescents in a school setting: outcomes and mediating factors. *Journal of Substance Abuse Treatment*, 42(3), 279-288.

Adaptation of MI for Homeless Adolescents by Slesnick et al., 2013

Study 1 (Slesnick et al., 2013) – modest support for MI:

179 runaway adolescents with substance use disorder (48% male; 26% White) were randomly assigned to receive 14 sessions of Adolescent Community Reinforcement Approach (ACRA), 4 sessions of MI, or 14 sessions of Ecologically Based Family Therapy (EBFT). Participants were assessed with the Form 90 at baseline, 3, 6, 9, 12, 18, 24 months post-baseline.

- Participants showed improvements in their substance use in all treatment conditions, and none of the interventions was superior to another.
- 55% showed clinically significant change in SU at 6 months, 29.2% had some reduction, and 16% showed deterioration.

Slesnick, N., Erdem, G., Bartle-Haring, S., & Brigham, G. S. (2013). Intervention with substance-abusing runaway adolescents and their families: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 81(4), 600.

Adaptation of MI to a Group Format**Study 1, Gmel et al., 2012 – No support for MI**

This adaptation employed MI in a group setting in high schools in Switzerland. Groups consisted of 8-10 secondary school students, grouped together according to number of heavy drinking occasions. Groups met twice for 45 minute sessions employing MI techniques. 668 students were allocated in clusters according to a quasi-randomized design. Students were assessed at baseline and 6 months later. Outcomes examined included frequency of binge drinking episodes, number of alcohol units per week, and maximum number of drinking on an occasion in past 30 days.

- Borderline significant beneficial effects ($p < 0.10$) on heavy drinking occasions and alcohol volume were found 6 months later for the medium-risk group only, but not for the high-risk group.
- None of the effects remained significant after Bonferroni corrections.

Gmel, G., Venzin, V., Marmet, K., Danko, G., & Labhart, F. (2012). A quasi-randomized group trial of a brief alcohol intervention on risky single occasion drinking among secondary school students. *International Journal of Public Health*, 57(6), 935-944.

Study 2, D'Amico et al., 2013 – Weak support for MI

This adaptation, called Free Talk, employed six 55-minute sessions using MI techniques. Each session covered different content about AOD use, e.g., myths around AOD use, thoughts about the path from no use to experimental use to addiction, and how AOD use might contribute to other risk-taking behavior. Facilitators engaged the teens using open-ended questions and reflections to discuss how the information might affect their personal AOD use in the future. Feedback delivered session mirrored typical information given in feedback reports.

193 teens aged 14-18 years in a Teen Court program who had committed a first alcohol or drug offense (67%

male, 45% White, 45% Hispanic) were randomly assigned to receive the Free Talk group MI intervention or usual care (UC). Participants were assessed at baseline and 3 months using measures from the RAND Adolescent/Young Adult Panel Study.

- AOD use and delinquency decreased for both groups at 3 months.
- 12-month recidivism rates were lower but not significantly different for the Free Talk group compared to UC.

D'Amico, E. J., Hunter, S. B., Miles, J. N., Ewing, B. A., & Osilla, K. C. (2013). A randomized controlled trial of a group motivational interviewing intervention for adolescents with a first time alcohol or drug offense. *Journal of Substance Abuse Treatment*, 45(5), 400-408.

Adaptation in Screening, Brief Intervention, and Referral to Treatment (SBIRT) in Medical Settings

Study 1, Bernstein et al., 2009 – Support for SBIRT with youth in emergency departments

Project ASSERT has received an NREPP rating of 3.3 (out of 4.0). Project ASSERT is a screening, brief intervention, and referral to treatment (SBIRT) model designed for use in health clinics or emergency departments (EDs). The face-to-face component of the intervention is delivered during the course of medical care, while the patient is waiting for the doctor, laboratory results, or medications. The intervention consists of assessment and provision of resources, written advice, 3- and 12-month appointments, a 20-minute structured conversation conducted by older peers, and a 10-day booster telephone call. A peer educator utilizes a motivational interviewing-style protocol adapted for adolescents to elicit daily life context and future goals, provide feedback, review pros and cons of substance use, assess readiness to change, evaluate strengths and assets, negotiate a contract for change, and make referrals to treatment and/or other resources. See http://www.bu.edu/bniart/files/2012/10/PA-Brochure_final.pdf.

210 patients in an emergency department aged students aged 14 to 21 (about 30% under age 18), who did not report at-risk alcohol use, smoked marijuana at least 3 times in the last 30 days or reported risky behavior associated with marijuana use (34% male; 6% White, 80% African American), were randomly assigned the intervention (I), an assessment control (AC) condition, or non-assessment control (NAC) condition. I and AC participants were assessed at baseline and 3 and 12 month follow-ups. NAC participants were assessed at baseline and 12 months. Measures included the Timeline Followback and the Adolescent Injury Checklist.

- At the 3 month followup, there was no significant difference in marijuana use in the past 30 days between the I and the AC groups.
- At the 12 month follow-up, 45% of the I group were abstinent from marijuana, compared to 22% of the AC group ($p < .014$). This group difference was associated with a medium effect size (odds ratio = 2.89).
- At the 12-month follow-up visit, the I group had four fewer days of use from BL at three months and six fewer days of use from BL at 12 months than ACs. (OR 0.39, 95% CI 0.17, 0.89, $p < .027$)

	<ul style="list-style-type: none"> At the 12 month follow-up, there were no differences between the AC group and the NAC group, suggesting that change in the AC group was due to regression to the mean rather than assessment reactivity, and thus, that the change observed in the I group was due to the intervention rather than assessment reactivity. <p>Bernstein, E., Edwards, E., Dorfman, D., Heeren, T., Bliss, C., & Bernstein, J. (2009). Screening and brief intervention to reduce marijuana use among youth and young adults in a pediatric emergency department. <i>Academic Emergency Medicine</i>, 16(11), 1174-1185.</p>
Rating Lists	CEBC: 1 = Well supported by research evidence
ADAI Rating	Evidence-based
Comment	MI has been adapted in a variety of ways for application to adolescent substance abuse problems. Overall, MI is considered evidence-based, with best support for the Teen Intervene adaptation. MI in a group context is considered promising but does not reach the level of research-based. BI in a medical setting is also considered promising but does not reach the level of research-based due to the minority of adolescents in the single supportive study and the fact that it is unclear whether the results among adolescents mirrored those among young adults.

Brief Strategic Family Therapy (BSFT)	
Contact information	Program Developer: José Szapocznik, Olga Hervis, and Seth Schwartz 305-243-7585, bsft@med.miami.edu
Website	http://www.bsft.org
Description of Intervention	Brief Strategic Family Therapy (BSFT) is designed to prevent, reduce, and/or treat youth behavior problems and to improve family functioning, including effective parental leadership and involvement with the youth. BSFT targets children and adolescents between the ages of 6 and 17 who are displaying or are at risk for developing behavior problems, including substance abuse, conduct problems and delinquency. The BSFT Program has been implemented as a prevention, early intervention and intervention strategy for delinquent and substance-abusing adolescents. The BSFT Program is typically delivered in 12 to 16 family sessions, depending on the severity of the communication and management problems within the family. Sessions are conducted at locations that are convenient to the family, including the family's home in some cases. The BSFT Program has been implemented with Hispanic, African-American and White families. The BSFT Program considers adolescent symptomatology to be rooted in maladaptive family interactions, inappropriate family alliances, overly rigid or permeable family boundaries, and parents' tendency to believe that a single individual (usually the adolescent) is responsible for the family's troubles. The BSFT® Program operates according to the assumption that transforming how the family functions will help improve the youth's presenting problem. The focus of the work is on how interactions occur. The emphasis is on identifying the

	nature of the interactions in the family and changing those interactions that are maladaptive. Engagement begins from the first contact with the family. The BSFT Program has developed specialized procedures to successfully engage families into treatment. There are three intervention components in the BSFT Program: joining, diagnosing, and restructuring. Joining occurs at two levels. At the individual level, the therapist establishes a relationship with each family member. At the family level, the therapist joins with the family system to create a new therapeutic system. In the BSFT Program, diagnosis refers to observing how family members behave with one another, in order to identify interactional patterns that allow or encourage problematic youth behavior. The ultimate goal of the BSFT Program is to change family interactions that maintain the problems to more effective and adaptive ones. The BSFT Program accomplishes this restructuring task working in the present, using reframes, assigning tasks and coaching family members to try new ways of relating to one another. See http://www.bsft.org/about/what-is-bsft .
Manual	Szapocznik, J., Hervis, O., & Schwartz, S. J. (2003). <i>Brief Strategic Family Therapy for Adolescent Drug Abuse</i> (NIDA Therapy Manuals for Drug Addiction, NIH Publication 03-4751). Bethesda, MD: Department of Health and Human Services.
Therapy format	Family
Therapy type	Family
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1, Santisteban et al., 2004 – weak support for BSFT 126 Hispanic/Latino adolescents (75% male) with a externalizing problems were randomly assigned to receive either BSFT or group control. Participants were assessed with the Addiction Severity Index at intake and termination. Only 52% of participants at intake reported substance use in the prior 30 days, and the study did not use an intent-to-treat design. Although the article states that the experimental groups were not significantly different in drug use at intake, 20 participants in the BSFT condition reported MJ use at intake and/or termination whereas 6 participants in the control condition did so. Thus, it seems the experimental groups could be qualitatively different.</p> <ul style="list-style-type: none"> • No effects were reported for alcohol use. • Marijuana use decreased more in the BSFT condition than in the GC condition, $t(69)=2.64$, $p = .02$. • Among those who used MJ at intake, 45% of those receiving BSFT vs. 17% of those in the control group showed reliable improvement. <p>Santisteban, D. A., Coatsworth, J. D., Perez-Vidal, A., Kurtines, W. M., Schwartz, S. J., LaPerriere, A., & Szapocznik, J. (2003). Efficacy of brief strategic family therapy in modifying Hispanic adolescent behavior problems and substance use. <i>Journal of Family Psychology</i>, 17(1), 121.</p> <p>Study 2, Robbins et al., 2008 – no support for BSFT 190 African American or Hispanic/Latino adolescents (86% male; 0% White) with a DSM-IV diagnosis of</p>

	<p>substance abuse or dependence, who were living with at least one adult caregiver, were randomly assigned to receive either BSFT, Structural Ecosystems Therapy (SET, which was BSFT plus up to 12 ecological sessions), or a referral to community services (CS). Participants were assessed with the Timeline Followback and Adolescent Drug Abuse Diagnosis interview at baseline and 3, 6, 9, 12, and 18 months post-randomization.</p> <ul style="list-style-type: none"> • BSFT was no more effective than CS at reducing number of days drug use in the preceding 30 days. • SET was more effective than BSFT and CS at reducing number of days drug use in the preceding 30 days, but only among Hispanic/Latino adolescents. • Dose (number of sessions) did not moderate the effect of the interventions <p>Robbins, M. S., Szapocznik, J., Dillon, F. R., Turner, C. W., Mitrani, V. B., & Feaster, D. J. (2008). The efficacy of structural ecosystems therapy with drug-abusing/dependent African American and Hispanic American adolescents. <i>Journal of Family Psychology</i>, 22(1), 51.</p> <p>Study 3, Robbins et al., 2011 – weak support for BSFT</p> <p>480 adolescents (79% male; 31% White) who either self-reported illicit drug use other than alcohol in the prior 30 days OR were referred for drug abuse treatment by an institution (school, court, etc.) were randomly assigned to receive either BSFT or treatment as usual (TAU), which varied from site to site (e.g., group, individual) in this multisite trial. Participants were assessed with the Timeline Followback at baseline and 4, 8, and 12 months post-randomization.</p> <ul style="list-style-type: none"> • There were no overall significant between group differences on trajectories of self-reported drug use days across 28-day periods. • Median number self-reported drug use days at 12 months was significantly higher in TAU (Mdn=3.5) than in BSFT (Mdn=2). <p>Robbins, M. S., Feaster, D. J., Horigian, V. E., Rohrbaugh, M., Shoham, V., Bachrach, K., ... & Szapocznik, J. (2011). Brief strategic family therapy versus treatment as usual: Results of a multisite randomized trial for substance using adolescents. <i>Journal of Consulting and Clinical Psychology</i>, 79(6), 713.</p>
Rating Lists	<p>CEBC: 2 = Supported by research evidence NREPP: Rated 3.0 and 3.4 on substance use-related indices ODJJP: Promising</p>
ADAI Rating	Promising
Comment	<p>BSFT is considered to be a promising intervention. Although BSFT has been better supported for other outcomes, support for BSFT vis-à-vis adolescent substance use outcomes is weak. The reviewed studies showed inconsistent results and there were methodological problems with one of the studies.</p>

Chestnut-Bloomington Outpatient Program (CBOP)	
Contact information	Program Developer: Susan H. Godley, PhD, 309-827-6026, sgodley@chestnut.org

Website	http://www.chestnut.org/AddictionTreatment/AdolescentAddictionServices
Description of Intervention	CBOP is an evidence-informed intervention that has developed over 20 years and been shaped by treatment research. The underlying theory of change is that the combination of multiple evidence based and best-practice treatment components will increase the adolescent's desire to change, provide the necessary skills, and create an environment supportive for this change. The intervention is based on a manual (Godley et al., 2003) and is primarily delivered through skill and therapy groups, combined with a limited number of family and individual sessions for treatment planning and progress reviews. Though it evolved from practice, CBOP has been evaluated (Godley et al., 2004), recognized by Drug Strategies' Guide to Treating Teens (Drug Strategies, 2003), and is listed on SAMHSA's National Registry of Evidence-Based Programs and Practices.
Manual	Godley, S.H., Risberg, R.A., Adams, L., & Sodetz, A. (2003). <i>Chestnut Health Systems' Bloomington Outpatient and Intensive Outpatient Treatment Model</i> . Bloomington, IL: Chestnut Health Systems. http://www.chestnut.org/LI/LighthouseInstituteBookstore/ATM-105-CHS-Bloomington
Therapy format	Individual, group, family
Therapy type	Eclectic, drawing from Rogerian, cognitive, behavioral, and reality therapies and incorporating 12-Step concepts and approaches
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1, Godley et al., 2010 – modest support for CBOP</p> <p>320 adolescents (76% male; 73% White, 73% involved in criminal justice system) were randomly assigned. Half received a primary treatment of Motivational Enhancement Therapy/Cognitive-Behavioral Therapy (MET/CBT7) and half received Chestnut's Bloomington Outpatient Program (CBOP) as their primary treatment. Half of each of these groups received Assertive Continuing Care (ACC) aftercare, resulting in 4 conditions: MET/CBT7, CBOP, MET/CBT7+ACC, CBOP+ACC. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months after admission.</p> <ul style="list-style-type: none"> • Findings were not significantly different by condition. The average percentage of days abstinent at follow-up was higher than baseline in all four conditions, with the increase in the percentage of days abstinent higher for the two CBOP conditions (10.6% and 10.9%) than the two MET/CBT7 conditions (5.0% and 6.1%). • The percentage in recovery at 12 month follow-up for each condition was: 29% for CBOP, 38% for CBOP+ACC, 44% for MET/CBT7, and 30% for MET/CBT7+ACC. • MET/CBT7 without ACC was the most cost-effective condition. Average cost per days abstinent: MET/CBT7 = \$4.25, MET/CBT7+ACC = \$14.97, CBOP = \$14.00, CBOP+ACC = \$19.37 <p>Godley, S. H., Garner, B. R., Passetti, L. L., Funk, R. R., Dennis, M. L., & Godley, M. D. (2010). Adolescent outpatient treatment and continuing care: Main findings from a randomized clinical trial. <i>Drug and Alcohol Dependence</i>, 110(1), 44-54.</p>

Rating Lists	NREPP: Rated 3.5-3.9 on a number of substance use-related indices
ADAI Rating	Promising
Comment	CBOP is considered to be promising. It was studied as a best practices treatment-as-usual control condition in a single study, in which it was as effective as MET/CBT7, an evidence-based intervention; however, the CBOP intervention was more than triple the cost per days abstinent of MET/CBT7. These results are considered promising but do not meet the level of evidence required for research-based.

Cognitive Behavioral Therapy (CBT)	
Contact information	Program Developers: Peter Monti, Ph.D., and Ronald Kadden, Ph.D.
Website	None
Description of Intervention	The primary goal of CBT for substance abuse is to master skills that will help to maintain abstinence from alcohol and other drugs. In order to develop these skills, clients must identify high-risk situations that may increase the likelihood of renewed drinking. These high-risk situations include precipitants of drinking that are external to the individual as well as internal events such as cognitions and emotions. Having identified situations that represent a high risk for relapse to drinking, clients must develop skills to cope with them. In this program, all clients are first taught basic skill elements for dealing with common high-risk problem areas; they are encouraged to engage in problem solving, role playing, and homework practice exercises that will enable participants to apply the new skills to meet their own particular needs. See http://pubs.niaaa.nih.gov/publications/MATCHSeries3/overview.htm .
Manual	There is no single manual for CBT for adolescent substance abuse. The primary manual for CBT for adult substance abuse is Kadden, R. (1995). <i>Cognitive-Behavioral Coping Skills Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence (No. 94)</i> . DIANE Publishing. http://pubs.niaaa.nih.gov/publications/MATCHSeries3/Project%20MATCH%20Vol_3.pdf . Note that there is diversity among the studies described below in how CBT was adapted for adolescents.
Therapy format	Individual, group
Therapy type	Cognitive-behavioral
Setting	Outpatient clinic, community agency
Evaluations and Findings	Study 1 (Kaminer et al., 1998) –weak support for a group form of CBT: 32 dually diagnosed adolescents, aged 13-18, who met DSM-III-R criteria for psychoactive substance use disorder (63% male, 90% White), were recruited for an outpatient aftercare treatment from a partial hospitalization treatment program were randomly assigned to receive 12 weeks of group CBT or Interactional

(Group Process) Treatment (IT). Participants were assessed with the Teen Addiction Severity Index (TASI) at baseline and 3 month follow-up.

- Controlling for baseline TASI subscale scores, gender, and completion status, those in the IT group decreased their scores on the TASI in substance use subscale less than those in the CBT group, $p = .04$.

Kaminer, Y., Burleson, J. A., Blitz, C., Sussman, J., & Rounsaville, B. J. (1998). Psychotherapies for adolescent substance abusers: A pilot study. *Journal of Nervous and Mental Disease*, 186(11), 684-690.

Study 2 (Kaminer & Burleson, 1999) –weak support for a group form of CBT:

Longer-term outcomes of study reported in Kaminer et al., 1998 (Study 1). 32 dually diagnosed adolescents, aged 13-18, who met DSM-III-R criteria for psychoactive substance use disorder (63% male, 90% White), were recruited for an outpatient aftercare treatment from a partial hospitalization treatment program were randomly assigned to receive 12 weeks of group CBT or Interactional (Group Process) Treatment (IT). Participants were assessed with the Teen Addiction Severity Index (TASI) at baseline and 3 and 15 months following treatment completion.

- At 15-month follow-up, there were no differential improvements as a function of therapy type. The CBT group ($n=5$) and IT group ($n=7$) were associated with similar long-term gains.
- Baseline and 15-month follow-up means, respectively, on the TASI subscale for alcohol use were 1.40 and 0.86 for the CBT group and 1.71 and 1.86 for the IT group.
- Baseline and 15-month follow-up means, respectively, on the TASI subscale for drug use were 1.70 and 1.00 for the CBT group and 2.43 and 1.86 for the IT group.

Kaminer, Y., & Burleson, J. A. (1999). Psychotherapies for Adolescent Substance Abusers: 15
Journal on Addictions, 8(2), 114-119.

~~AmorticalFlo~~

Study 3 (Azrin et al., 2001) – modest support for a form of CBT:

56 adolescents (12-17) with symptoms of Conduct Disorder plus Substance Use Disorder or symptoms of Oppositional Defiant Disorder plus Substance Dependence (82% male, 79% White) were randomly assigned to receive 15 sessions of Family Behavior Therapy (FBT) or 15 sessions of Individual-Cognitive Problem-Solving Therapy (ICPST) over the course of 6 months. Participants were assessed with the Timeline Followback and urinalysis at baseline, post-treatment, and 6 months post-treatment.

- There were no Intervention by Time effects from pre-treatment to post-treatment or from pre-treatment to follow-up ($ps > .05$), indicating that subjects in both interventions demonstrated similar results across time.
- Number of days per month using drugs decreased in the FBT condition from 13.6 to 9.0 to 8.6. and in the ICPST condition from 14.1 to 9.3 to 8.4 ($p < .001$ at both post and 6-months post, across groups).
- Percent of subjects abstinent from drugs according to UA increased in the FBT condition from 24.2 to

25.0 to 45.0 and in the ICPST condition from 22.2 to 52.0 to 44.4 ($p < .05$ from pre to 6 months post). Azrin, N., Donohue, B., Teichner, G., Crum, T., Howell, J., & DeCato, L. (2001). A controlled evaluation and description of individual-cognitive problem solving and family-behavior therapies in dually-diagnosed conduct-disordered and substance-dependent youth. *Journal of Child & Adolescent Substance Abuse*, 11(1), 1-43.

Study 4 (Waldron et al., 2001) – Weak support for CBT:

120 adolescents (80% male, 38% White, 47% Hispanic/Latino) who were referred for drug abuse treatment, most of whom were mandated for treatment by the court, probation officers, or schools. Youths were eligible if they met criteria for a DSM-IV substance use disorder, not primarily abusing only alcohol, and had a parent/guardian who was willing to participate. Participants were randomly assigned to receive 12 hours of Functional Family Therapy (FFT), 12 hours of individual CBT, 12 hours of psychoeducational group treatment, or 24 hours of FFT + CBT. Participants were assessed at baseline, and 4 and 7 months using the Timeline Followback.

- From baseline to 4 month follow-up, youths in the FFT condition, eta squared = .422, and in the joint condition, eta squared = .229, showed significant reductions in days of marijuana use. Youths in the CBT condition and in the group condition did not have a significant reduction in marijuana use.
- From baseline to 7 month follow-up, youths in the joint treatment condition maintained a significant reduction in days using marijuana, eta squared = .243. Youths in the FFT condition were not significantly different from baseline, eta squared = .102, suggesting that the changes at 4 months were not maintained at 7 months. Youths in the group condition significantly reduced their marijuana use, eta squared = .216. Youths in the CBT condition did not change significantly from pretreatment.
- There was a significant change in heavy to minimal use from pretreatment to 4 months in FFT (86.6% vs. 55.2%), CBT (96.8% vs. 72.4%), and joint (89.7% vs. 55.6%) conditions, but not in the group condition (96.7% vs. 87.8%).
- From baseline to 7 months, there was a significant change from heavy use to minimal use in the FFT condition (86.6% vs. 62.1%), the joint condition (89.7% vs. 55.6%), and the group condition (96.7% vs. 69.0%), but not in the CBT condition (96.8% vs. 82.8%)

Waldron, H. B., Slesnick, N., Brody, J. L., Turner, C. W., & Peterson, T. R. (2001). Treatment outcomes for adolescent substance abuse at 4- and 7-month assessments. *Journal of Consulting and Clinical Psychology*, 69(5), 802.

Study 5 (Kaminer et al., 2002) –weak support for a group form of CBT:

88 adolescents, aged 13-18, referred to an outpatient program for psychoactive substance use disorder (70% male, 90% White) were randomly assigned to receive 8 weeks of group CBT or group psychoeducational therapy (PET). Participants were assessed with urinalysis (UA) and the Teen Addiction Severity Index (TASI) at baseline and 3 and 9 month follow-ups.

- At three month follow-up, there was no significant main effect for treatment group on likelihood of

positive UA. There was a significant interaction between treatment group and age ($p = .008$): youth 16 years and older showed no differential likelihood of positive UA by treatment; however, youth younger than 16 in the PET group were more likely to exhibit a positive drug screen than their counterparts in the CBT group.

- The TASI substance use subscale improved significantly from baseline to 3 months across conditions ($p = .001$). There was a significant time \times gender \times treatment group interaction ($p = .017$): male CBT subjects showed the most improvement, male PET subjects showed no significant improvement, and female subjects showed improvement regardless of treatment group.
- Relapse rates of both conditions were similar at 9-month posttreatment follow-up, indicating that those receiving relative benefit from CBT tended to lose their gains.

Kaminer, Y., Burleson, J. A., & Goldberger, R. (2002). Cognitive-behavioral coping skills and psychoeducation therapies for adolescent substance abuse. *Journal of Nervous and Mental Disease*, 190(11), 737-745.

Study 6 (Latimer et al., 2003) -support for group CBT integrated with family therapy:

43 adolescents, aged 12-18, meeting DSM-IV criteria for at least one psychoactive substance use disorder (77% male, 86% White) were randomly assigned to either Integrated Family and Cognitive Behavioral Therapy (IFCBT) or a Drugs Harm Psychoeducation Curriculum. IFCBT consisted of 16 individual family therapy sessions that meet weekly, coordinated with 32 semi-weekly peer group cognitive-behavioral sessions. DHPE consisted of 16 weekly, 90-min group sessions focusing on the physiological consequences of drug use. Participants were assessed at baseline and monthly for 6 months with urinalysis (UA) and the Personal Experience Inventory.

- Across the 6-month posttreatment period, DHPE youth were 2.20 times more likely to use drugs other than alcohol and marijuana on at least one occasion when compared with IFCBT youth ($p = n.s.$).
- Across the 6-month posttreatment period, youth receiving DHPE used alcohol an average of 6.1 days per month while those receiving IFCBT averaged 2.0 days per month ($p < .05$, $ds = .5-.6$).
- Across the 6-month posttreatment period, youth receiving DHPE used marijuana an average of 13.8 days per month while those receiving IFCBT averaged 5.7 days per month ($p < .05$, $ds = .7$).
- At the 3-month follow-up, 90.5% of DHPE youth tested positive for cannabis versus 47.6% of IFCBT youth ($p < .01$).
- At the 6-month follow-up, 85.7% of DHPE youth tested positive for cannabis versus 42.9% of IFCBT youth ($p < .01$).

Latimer, W. W., Winters, K. C., D'Zurilla, T., & Nichols, M. (2003). Integrated family and cognitive-behavioral therapy for adolescent substance abusers: a stage I efficacy study. *Drug and Alcohol Dependence*, 71(3), 303-317.

Study 7 (Liddle et al., 2008a) - modest support for CBT:

224 drug-using youth (75% meeting DSM-IV criteria for cannabis dependence), aged 12 to 17.5 years (81%

male, 72% African American) were randomly assigned to either Multidimensional Family Therapy (MDFT) or CBT. Participants were assessed for frequency of drug use and psychological involvement in drug use at intake, termination, and 6 and 12 months following treatment termination.

- Both treatments evidenced significant decreases in frequency of cannabis use and substance abuse problem severity and marginally significant decreases in alcohol use.
- Compared to those in CBT, participants in MDFT retained more treatment gains at the 6-and 12-month follow-ups, used fewer drugs other than cannabis and alcohol, and were more likely to report minimal substance use (zero or one occasion) at the 12-month follow-up.

Liddle, H. A., Dakof, G. A., Turner, R. M., Henderson, C. E., & Greenbaum, P. E. (2008a). Treating adolescent drug abuse: A randomized trial comparing multidimensional family therapy and cognitive behavior therapy. *Addiction*, 103(10), 1660-1670.

Study 8 (Hendricks et al., 2011) – support for CBT:

109 adolescents with a cannabis use disorder in The Netherlands were randomly assigned to MDFT or CBT, both with a planned treatment duration of 5-6 months, and with study assessments at baseline and at 3, 6, 9 and 12 months following baseline. Main outcome measures were cannabis use, delinquent behavior, treatment response and recovery at one-year follow-up, and treatment intensity and retention.

- Adolescents in both treatments showed significant and clinically meaningful reductions in cannabis use and delinquency from baseline to one-year follow-up, with treatment effects in the moderate range.
- A substantial percentage of adolescents in both groups met the criteria for treatment response at month 12.
- Treatment intensity and retention was significantly higher in MDFT than in CBT.
- Post hoc subgroup analyses suggested that high problem severity subgroups at baseline may benefit more from MDFT than from CBT.

Hendriks, V., van der Schee, E., & Blanken, P. (2011). Treatment of adolescents with a cannabis use disorder: Main findings of a randomized controlled trial comparing multidimensional family therapy and cognitive behavioral therapy in The Netherlands. *Drug and Alcohol Dependence*, 119(1), 64-71.

Study 9 (Esposito-Smithers et al., 2011) – support for CBT for substance use disorder integrated with CBT for suicidality:

40 adolescents, aged 13 to 17, who met DSM-IV-TR criteria for drug abuse or dependence randomly assigned to integrated CBT for substance use disorder and suicidality (ICBT) or enhanced treatment as usual (ETAU). Assessments including urinalysis (UA), the Timeline Followback (TLFB), Rutgers Alcohol Problem Index (RAPI), and Rutgers Marijuana Problem Index (RMPI) were completed at pretreatment as well as 3, 6, 12, and 18 months post-enrollment.

- Compared to ETAU, ICBT was associated with significantly fewer heavy drinking days. ICBT was

	<p>associated on average with a more than a 50% reduction in the expected number of heavy drinking days and that this effect became stronger at later follow-ups. This effect was not observed for number of drinking days in general.</p> <ul style="list-style-type: none"> • Compared to ETAU, ICBT was associated with significantly fewer days of marijuana use. ICBT was associated on average with a more than a 60% reduction in the expected number of marijuana, with the effect significantly stronger at later follow-ups than at earlier follow-ups. • Marijuana problems reduced more over time in the ICBT condition than the ETAU condition. • No significant effects or interactions were observed for alcohol problems. <p>Esposito-Smythers, C., Spirito, A., Kahler, C. W., Hunt, J., & Monti, P. (2011). Treatment of co-occurring substance abuse and suicidality among adolescents: a randomized trial. <i>Journal of Consulting and Clinical Psychology, 79</i>(6), 728.</p> <p>Study 10 (Burrow-Sanchez & Wrona, 2012) – support for culturally accommodated CBT vs. standard CBT for Latinos:</p> <p>35 Latino adolescents, aged 13 to 18, with an alcohol or cannabis use disorder were randomly assigned to receive 12 weeks of standard CBT (S-CBT) or culturally accommodated CBT (A-CBT). Assessments including the Timeline Followback (TLFB) were administered at pretreatment, posttreatment, and 3-month follow-up.</p> <ul style="list-style-type: none"> • Participants in both conditions demonstrated significant decreases in substance use from pre- to posttreatment with slight increases at 3-month follow-up. • Significant mean differences between treatment conditions on participant scores of substance use at posttreatment were present but only when moderators were considered. Findings suggest that Latino adolescents in A-CBT condition who had higher levels of ethnic identity and familism at pretreatment reported larger decreases in substance use levels at posttreatment compared to those in the standard condition. <p>Burrow-Sanchez, J. J., & Wrona, M. (2012). Comparing culturally accommodated versus standard group CBT for Latino adolescents with substance use disorders: A pilot study. <i>Cultural Diversity and Ethnic Minority Psychology, 18</i>(4), 373.</p>
Rating Lists	None
ADAI Rating	Evidence-based
Comment	CBT is considered evidence-based as 10 RCTs were identified, and the weight of the evidence supports sustained improvements in substance use outcomes for CBT. A caveat is that there is quite a bit of heterogeneity among studies in the way CBT has been applied. For a clearer picture on a more standardized form of CBT, refer to our rating of MET/CBT.

Community Reinforcement and Family Training (CRAFT)	
Contact information	Program Developer: Robert J. Meyers, Ph.D., and Jane Ellen Smith, Ph.D.

Website	https://www.robertjmeyersphd.com/craft.html
Description of Intervention	CRAFT is a unilateral family treatment approach specifically designed to aid family members or concerned significant others (CSOs) in modifying the behavior of initially unmotivated drug or alcohol abusers and engaging them in treatment. It was initially developed for adult drug or alcohol abusers, for which there is a body of research evidence. More recently, Waldron and colleagues (2007) adapted and pilot tested the intervention for adolescents. CRAFT differs from A-CRA (Adolescent Community Reinforcement Approach) in that CRAFT focuses specifically on engaging resistant drug or alcohol abusers in treatment.
Manual	Smith, J. E., & Meyers, R. J. (2007). <i>Motivating Substance Abusers to Enter Treatment: Working with Family Members</i> . New York, NY: The Guilford Press.
Therapy format	Individual, family
Therapy type	Cognitive-behavioral
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Waldron et al., 2007) – support for CRAFT: 42 families with a treatment-resistant, drug-abusing adolescent (aged 14 to 20 years) were offered 12 sessions of parent-focused CRAFT.</p> <ul style="list-style-type: none"> 71% of parents were successful in engaging their resistant youth in treatment. 30 out of 42 adolescents were successfully engaged in an offered individual cognitive behavioral therapy. <p>Waldron, H. B., Kern-Jones, S., Turner, C. W., Peterson, T. R., & Ozechowski, T. J. (2007). Engaging resistant adolescents in drug abuse treatment. <i>Journal of Substance Abuse Treatment</i>, 32(2), 133-142.</p>
Rating Lists	NREPP: Rated 2.5
ADAI Rating	Promising
Comment	CRAFT is well-supported with research evidence for concerned family members of adult substance abusers. We could find only one uncontrolled study examining CRAFT for adolescents exhibiting substance abuse. While results are encouraging, more studies are needed to substantiate the effectiveness of CRAFT for this population.

Contingency Management (CM)	
Contact information	Program Developers: Nancy Petry, Scott Henggeler, and Phillippe Cunningham
Website	http://contingencymanagement.uchc.edu/
Description of Intervention	Contingency management is an evidence-based behavioral program that uses positive reinforcement, or rewards, to promote behavior change. Recipients of this treatment receive chances for prizes for negative

	<p>alcohol and drug tests and for participating in pro-social activities. Each verified complete pro-social activity or negative toxicology screen earns the opportunity to draw a slip of paper from a chance bowl. Typically, when the chance bowls are prepared, about 30% of slips show a smiling face (no prize), 64% say “small” (prize worth about \$1), 5.8% say “large” (prize worth about \$25), and 0.2% say “jumbo” (prize worth about \$100). Replacement is typically used so that the odds of picking each prize category are the same each draw.</p>
Manual	<p>Petry, N. M. (2000). A comprehensive guide for the application of contingency management procedures in standard clinic settings. <i>Drug and Alcohol Dependence</i>, 58, 9–25</p> <p>Henggeler, S. W., & Cunningham, P. B. (2011). <i>Contingency Management for Adolescent Substance Abuse: A Practitioner's Guide</i>. Guilford Press.</p>
Therapy format	Individual
Therapy type	Behavioral
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Henggeler et al., 2006) – weak support for CM:</p> <p>161 juvenile offenders meeting diagnostic criteria for substance abuse or dependence, aged 12-17 (83% male, 31% White, 67% African American), meeting <i>DSM-IV</i> criteria for substance abuse or dependence were randomly assigned to receive either family court with usual community services (FC-UCS), drug court with usual community services (DC-UCS), drug court with MST (DC-MST), or drug court with MST enhanced with contingency management (DC-MST+CM). Outcomes were assessed with the Form 90 and urine drug screens at pretreatment, 4 months, and 12 months.</p> <ul style="list-style-type: none"> • For alcohol use, significant effects were observed only for youths in the DC/MST/CM condition. Self-reported alcohol use decreased significantly from pretreatment to 4 months ($p < .009$) and 12 months ($p < .008$). • For the first 4 months of drug court, youths in the DC/MST and DC/MST/CM conditions had significantly lower percentages of positive drug screens than did their DC counterparts ($ps < .001$; DC = 69%, DC/MST = 28%, DC/MST/CM = 18%). • At 12 months, controlling for baseline scores, youths in the DC/MST and DC/MST/CM conditions reported significantly less heavy alcohol use than did their counterparts in the FC condition. • For the time period between 4 and 12 months, youths in the DC/MST and DC/MST/CM conditions had significantly lower percentages of positive drug screens than did their DC counterparts ($ps < .001$; DC = 45%, DC/MST = 7%, DC/MST/CM = 17%). • In comparison with DC youths, counterparts in the DC/MST and DC/MST/CM conditions had very large ESs for negative urine screens at T2 (1.38 and 2.05, respectively) and T3 (1.27 and .82, respectively).

- Marijuana use decreased rapidly to 4 months and then either leveled off or increased slightly to T3. At T3, however, controlling for T1 scores, youths in the DC/MST and DC/MST/CM conditions reported less marijuana use than FC counterparts.

Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. *Journal of Consulting and Clinical Psychology, 74*(1), 42.

Study 2, Stanger et al., 2009 - weak support for CM:

69 adolescents (83% male, 91% White) were randomized to receive either MET/CBT12 (CTL) or MET/CBT12+Contingency Management (EXP). Participants were assessed with the urine toxicology and the timeline followback at baseline, post-treatment, and 3, 6, and 9 months post-treatment.

- There were no significant treatment or time × treatment interaction effects. Across conditions, prevalence of marijuana use assessed by urine analysis (UA) decreased during treatment but then increased during follow-up and began to level off approaching baseline levels at intake.
- MET/CBT12+CM showed higher rates of marijuana abstinence than MET/CBT12 only at each time point, but these findings did not reach statistical significance. The percent with a positive UA in each condition (EXP | CTL) was approximately 61 | 69 at intake, 28 | 31 at discharge, 37 | 64 at 3 months, 41 | 56 at 6 months, and 46 | 63 at 9 months.
- Self-reported mean % days using marijuana use decreased during treatment but then increased during follow-up and began to level off below baseline levels. The mean percent of self-reported days used marijuana in each condition (EXP | CTL) was approximately 44 | 56 at intake, 9 | 12 at discharge, 7 | 17 at 3 months, 16 | 20 at 6 months, and 15 | 29 at 9 months.
- Similar results were reportedly found for self-reported alcohol use but no data were provided; the researchers reported that percent of days used alcohol declined from intake to the 3-month follow-up, but increased from 6 to 9 months.

Stanger, C., Budney, A. J., Kamon, J. L., & Thostensen, J. (2009). A randomized trial of contingency management for adolescent marijuana abuse and dependence. *Drug and Alcohol Dependence, 105*(3), 240-247.

Study 3, Henggler et al., 2012 - modest support for CM:

104 juvenile offenders, aged 12 to 17 (83% male, 57% White, 40% African American) were randomized to receive either CM in combination with Family Engagement Strategies (CM-FAM) or usual services (US). 86% of the adolescents met diagnostic criteria for at least one substance use disorder. Participants were assessed with the Timeline Followback at baseline, and 3, 6, and 9 months post-recruitment. Urine drug screens were also administered.

- There were no significant differences in self-reported marijuana use between conditions.
- From Months 1–3 to Months 7–9, the odds of a positive marijuana result per drug screen for US youths increased 94% (odds ratio = 1.94). During the same time, for CM-FAM youths, the odds of a

positive marijuana result per drug screen decreased 18% (odds ratio = 0.82)

Henggeler, S. W., McCart, M. R., Cunningham, P. B., & Chapman, J. E. (2012). Enhancing the effectiveness of juvenile drug courts by integrating evidence-based practices. *Journal of Consulting and Clinical Psychology, 80*(2), 264.

Study 4, Godley et al., 2014 – support for CM

337 adolescents (63% male; 70% White) were randomly assigned to varying continuing care conditions following residential treatment: usual continuing care (UCC), Assertive Continuing Care (ACC), CM, or CM+ACC. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months after discharge. Outcomes were examined across the 12 months after discharge.

- In the 12 months after discharge from residential treatment, CM resulted in significantly higher rates of AOD abstinence days than UCC (65.1% to 52.6%, $d = 0.41$). This pattern also was true for heavy alcohol use (81.2% to 73.1%, $d = 0.34$), any alcohol use (79.6% to 71.1%, $d = 0.36$), and marijuana use (69% to 58%, $d = 0.38$).

Godley, M. D., Godley, S. H., Dennis, M. L., Funk, R. R., Passetti, L. L., & Petry, N. M. (2014). A randomized trial of assertive continuing care and contingency management for adolescents with substance use disorders. *Journal of Consulting and Clinical Psychology, 82*(1), 40-51.

Study 5, Kaminer et al., 2014 – no support for CM

59 adolescents (86% male; 64% White, Non-Hispanic) with a current DSM-IV diagnosis of cannabis abuse or dependence and a positive drug screen for cannabis at baseline were randomly assigned to either cognitive behavioral therapy with non-contingent reinforcement (CBT) or CBT with voucher-based contingent reinforcement (CBT+CM). All youth received 10 weekly manual-guided group CBT sessions based on the CYT study protocols. Participants were assessed with the Timeline Followback and Teen Addiction Severity Index. Cannabis use status was examined at each session and at 3-month follow-up.

- In general, youth overall did not significantly change their cannabis use from Sessions 1 through 10 nor from Session 10 to 3-month follow-up, and there were not any significant changes as a function of experimental group.

Kaminer, Y., Burleson, J. A., Burke, R., & Litt, M. D. (2014). The efficacy of contingency management for adolescent cannabis use disorder: a controlled study. *Substance Abuse, 35*(4), 391-398.

Study 6, Stanger et al., 2015 – modest support for CM

153 adolescents (89% male, 36% White, 62% African American) who met DSM-IV criteria for cannabis abuse or dependence were randomized to 12 sessions of motivational enhancement therapy/cognitive-behavioral therapy (MET/CBT), MET/CBT+abstinence-based contingency management (CM), or MET/CBT+CM+Parent Training (PT). Participants were assessed with urinalysis, the Timeline Followback, and Vermont Structured Diagnostic Interview at pretreatment, post-treatment, and 3, 6, 9, and 12 months post-treatment

- During treatment, MET/CBT, MET/CBT+CM, and MET/CBT+CM+PT, respectively, differed in the

	<p>proportion of participants who achieved ≥ 2 weeks of abstinence (35% versus 65% versus 59%, $p < .007$), and ≥ 4 weeks (31% versus 53% versus 43%, $p < .03$), but not ≥ 6 weeks (29% versus 47% versus 33%, $p = .15$)</p> <ul style="list-style-type: none"> • Abstinence rates decreased between end of treatment and the 3-month follow-up, with similar abstinence rates in the 3 conditions at all follow-up assessments. • Despite significant improvements in reduction in marijuana use during treatment, maintenance of gains post-treatment was poor across conditions. <p>Stanger, C., Ryan, S. R., Scherer, E. A., Norton, G. E., & Budney, A. J. (2015). Clinic-and home-based contingency management plus parent training for adolescent cannabis use disorders. <i>Journal of the American Academy of Child & Adolescent Psychiatry</i>.</p>
Rating Lists	None
ADAI Rating	Research-based
Comment	Contingency Management is considered research-based. Although 4 of the 6 RCTs reviewed above demonstrated weak, modest, and/or short-term effects of CM, and one demonstrated no effect for CM, one study (Godley et al., 2014) showed sustained improvements in substance use with CM. More studies are needed to establish the reinforcement procedures associated with reliable, sustained improvements in substance use disorders and related problems.

Culturally Informed & Flexible Family-Based Treatment for Adolescents (CIFFTA) for Hispanics	
Contact information	Program Developer: Daniel Santisteban, Ph.D.
Website	http://sites.education.miami.edu/santisteban/
Description of Intervention	Culturally Informed and Flexible Family-Based Treatment for Adolescents (CIFFTA) is an outpatient treatment that was designed to modify symptoms such as adolescent conduct problems, depression, school failure, family conflict, delinquency/violent behavior, drug use and/or risky sexual behavior. At the same time that CIFFTA reduces risk factors, it also identifies and strengthens protective/resiliency factors. CIFFTA combines family treatment, individual treatment, and psycho-Educational modules in a highly strategic and effective manner. CIFFTA works with the adolescents to help develop skills and knowledge needed to react more effectively in the face of stressors but the main focus is on stimulating the protective and healing processes in minority parents and families. One of the primary ways to interrupt an unhealthy trajectory and reduce the impact of difficult environments for high risk youth is through effective parenting, parental support, monitoring, and guidance. These factors are critical to early problem identification, early treatment and indicated prevention. Compared to temporary therapists, family members can be more influential over an extended period of the child's life. See http://sites.education.miami.edu/santisteban/ .

Manual	Santisteban DA & Mena M. (2006) <i>Culturally Informed Family Therapy For Adolescents: A Flexible Treatment Manual</i> . Developed with funding of the National Institute on Drug Abuse, Treatment Development Division.
Therapy format	Family therapy
Therapy type	Family therapy
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Santisteban, 2011) – support for CIFFTA: 28 Hispanic adolescents and their families were randomized either to CIFFTA or to traditional family therapy (TFT) and were assessed at baseline and 8-month follow-up.</p> <ul style="list-style-type: none"> Results revealed statistically significant time × treatment effects on both self-reported drug use (marijuana + cocaine), $F(1, 22) = 10.59, p < .01, \eta^2 = .33$ and adolescent reports of parenting practices, $F(1, 22) = 9.01, p < .01, \eta^2 = .29$. Both sets of analyses favored CIFFTA participants. <p>Santisteban, D. A., Mena, M. P., & McCabe, B. E. (2011). Preliminary results for an adaptive family treatment for drug abuse in Hispanic youth. <i>Journal of Family Psychology, 25</i>(4), 610.</p>
Rating Lists	None
ADAI Rating	Promising
Comment	CIFFTA is considered promising. One RCT was identified, which showed favorable results, but it included only 28 participants. More studies are needed to substantiate the favorable effects of CIFFTA in a larger sample of Hispanic/Latino adolescents.

Ecologically Based Family Therapy (EBFT)	
Contact information	Program Developer: Nancy Slesnick
Website	None
Description of Intervention	EBFT is a 14- to 16-session home-based, family preservation model that focuses on families who are in crisis because a youth has run away from home. The model targets 12- to 17-year-olds who are staying in a runaway shelter and are also dealing with substance abuse issues. Preliminary intervention with the family consists of preparing parents and adolescents to come together to talk about issues that may have initiated the runaway episode. Sessions with parents alone utilize similar motivation and engagement procedures as those used with the adolescent. The sessions help develop parents' readiness to develop a new kind of relationship with their youth and change parenting strategies. The therapist works towards fostering competency in parenting by supporting consistent and age-appropriate limit-setting and monitoring of activities. This may be especially salient for parents of runaway youth as they may have lost confidence in

	<p>their ability to influence the adolescent. Following completion of the individual sessions, family members are brought together to target specific dysfunctional interactions which correspond to the development and continuation of problem behaviors. Techniques utilized in these sessions include communication and problem-solving skills training where youth and parents become more confident and competent in their ability to communicate needs and expectations.</p>
Manual	Slesnick, N. (2003). Treatment Manual: Ecologically Based Family Therapy for Substance Abusing Runaway Youth. Unpublished manuscript.
Therapy format	Family therapy
Therapy type	Family therapy
Setting	Outpatient clinic, community agency; in-home sessions
Evaluations and Findings	<p>Study 1 (Slesnick & Prestopnik, 2005) – modest support for EBFT: 124 runaway adolescents with at least 10 days of substance use in past 90 days or DSM-IV substance use disorder and at least one caregiver willing to participate (41% male, 37% White, 41% Hispanic/Latino) were randomly assigned to receive EBFT or services as usual (SAU). Participants were assessed with the Form 90 at baseline, 6, and 12 months post-baseline.</p> <ul style="list-style-type: none"> • No significant effects were found for any of the main variables of interest in ITT analyses. • Among those who received > 4 sessions, effects were found for percent days substance use ($\eta^2 = .10$). • EBFT showed a greater reduction in overall substance use compared to SAU <p>Slesnick, N., & Prestopnik, J. L. (2005). Ecologically based family therapy outcome with substance abusing runaway adolescents. <i>Journal of Adolescence</i>, 28(2), 277-298.</p> <p>Study 2 (Slesnick & Prestopnik, 2009) – Support for EBFT: 119 runaway adolescents with a primary alcohol problem (89% meeting DSM-IV alcohol use disorder) were randomly assigned to receive 16 sessions of home-based EBFT, 16 sessions of office-based functional family therapy (FFT), or services as usual (SAU). Participants were assessed with the Form 90, Child Diagnostic Interview Schedule, Adolescent Drinking Index, and Problem Oriented Screening Instrument at baseline, 3, 5 and 15 months post-baseline. .</p> <ul style="list-style-type: none"> • Percent days of alcohol or drug use declined more from baseline to 9 to 15 months in both EBFT (43, 21, 12) and FFT (43, 18, 13), compared to SAU (38, 32, 33), $p < .05$. • There were no significant differences between groups for any of the other variables. <p>Slesnick, N., & Prestopnik, J. L. (2009). Comparison of Family Therapy Outcome With Alcohol Abuse. <i>Journal of Marital and Family Therapy</i>, 35(3), 255-277.</p>

	<p>Study 3 (Slesnick et al., 2013) – modest support for EBFT: 179 runaway adolescents with substance use disorder (48% male; 26% White) were randomly assigned to receive 14 sessions of the Adolescent Community Reinforcement Approach (ACRA), 14 sessions of Motivational Interviewing (MI), or 14 sessions of EBFT. Participants were assessed with the Form 90 at baseline, 3, 6, 9, 12, 18, 24 months post-baseline.</p> <ul style="list-style-type: none"> • Participants showed improvements in their substance use in all treatment conditions, and none of the interventions was superior to another. • 55% showed clinically significant change in SU at 6 months, 29.2% had some reduction, and 16% showed deterioration. <p>Slesnick, N., Erdem, G., Bartle-Haring, S., & Brigham, G. S. (2013). Intervention with substance-abusing runaway adolescents and their families: Results of a randomized clinical trial. <i>Journal of Consulting and Clinical Psychology</i>, 81(4), 600.</p>
Rating Lists	<p>CEBC: 2 = Supported by research evidence ODJJP: Promising</p>
ADAI Rating	Research-based
Comment	EBFT is considered research based. One of three identified randomized controlled trials showed good support for EBFT. The other two offered modest support. It is worth noting that Study 3 showed that 14 sessions of EBFT produced effects that were comparable to a 4-session MI intervention.

Family Behavior Therapy (FBT)	
Contact information	Program Developers: Bradley Donohue and Nathan H. Azrin
Website	http://web.unlv.edu/labs/frs/fbt.html
Description of Intervention	“FBT...uses innovative, easily learned, behavioral therapies to treat substance abuse and various problem behaviors for adults and youth within the family context. Adolescent and adult FBT usually includes 12 to 19 sixty to ninety-minute outpatient sessions that are scheduled to occur up to 4 to 12 months.” See http://web.unlv.edu/labs/frs/fbt.html
Manual	Donohue, B., & Azrin, N. H. (2011). <i>Treating Adolescent Substance Abuse Using Family Behavior Therapy: A Step-by-Step Approach</i> . Hoboken, NJ: John Wiley & Sons, Inc. http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470621923.html
Therapy format	Family
Therapy type	Behavioral
Setting	Outpatient clinic, community agency

Evaluations and Findings	<p>Study 1 (Azrin et al., 2001) – modest support for FBT: 56 adolescents (12-17) with symptoms of Conduct Disorder plus Substance Use Disorder or symptoms of Oppositional Defiant Disorder plus Substance Dependence (82% male, 79% White) were randomly assigned to receive 15 sessions of FBT or 15 sessions of Individual-Cognitive Problem-Solving Therapy (ICPST) over the course of 6 months. Participants were assessed with the Timeline Followback and urinalysis at baseline, post-treatment, and 6 months post-treatment.</p> <ul style="list-style-type: none"> • There were no Intervention by Time effects from pre-treatment to post-treatment or from pre-treatment to follow-up ($p > .05$), indicating that subjects in both interventions demonstrated similar results across time. • Number of days per month using drugs decreased in the FBT condition from 13.6 to 9.0 to 8.6. and in the ICPST condition from 14.1 to 9.3 to 8.4 ($p < .001$ at both post and 6-months post, across groups). • Percent of subjects abstinent from drugs according to UA increased in the FBT condition from 24.2 to 25.0 to 45.0 and in the ICPST condition from 22.2 to 52.0 to 44.4 ($p < .05$ from pre to 6 months post). <p>Azrin, N., Donohue, B., Teichner, G., Crum, T., Howell, J., & DeCato, L. (2001). A controlled evaluation and description of individual-cognitive problem solving and family-behavior therapies in dually-diagnosed conduct-disordered and substance-dependent youth. <i>Journal of Child & Adolescent Substance Abuse, 11</i>(1), 1-43.</p>
Rating Lists	<p>CEBC: 2 = Supported by research evidence NREPP: Rated 2.9 on drug use outcomes, 2.7 on alcohol use outcomes.</p>
ADAI Rating	Research-based
Comment	FBT is considered research-based, with a single randomized-controlled trial demonstrating sustained reductions in average number of days using drugs.

Family Support Network (FSN)	
Contact information	<p>Program developer: Nancy Hamilton, MPA, 813-760-3979 Implementation contact: Jackie Griffin, MS, jgriffin@operpar.org Research contact: Mark Vargo, PhD, mvargo@operpar.org</p>
Description of Intervention	<p>Family Support Network (FSN) is an outpatient substance abuse treatment program targeting youth ages 10-18 years. FSN includes a family component along with a 12-session, adolescent-focused cognitive behavioral therapy—called Motivational Enhancement Therapy/Cognitive Behavioral Therapy (MET/CBT12)—and case management. It is designed to be used in conjunction with any standard adolescent treatment approach. It seeks to extend the focus of treatment beyond the world of the adolescent by engaging the family, a major system in his or her life. Because family therapy is beyond the resources of many programs, the FSN model was developed to use only a limited number of the more costly in-home therapy sessions coupled with</p>

	<p>several less costly group sessions. It consists of several components, each designed to achieve specific objectives: case management, six parent education groups, and 3-4 in-home family therapy sessions. Treatment goals of FSN are to improve an adolescent's outcomes by including the family in the recovery process, enhancing family function, improving parental effectiveness in dealing with substance abuse and accompanying behaviors, assessing the family's commitment to the recovery process, and suggesting changes to the way the family approaches problems.</p>
Manual	<p><i>Family Support Network for Adolescent Cannabis Users: Cannabis Youth Treatment Series vol. 3.</i> http://store.samhsa.gov/product/Family-Support-Network-for-Adolescent-Cannabis-Users/SMA05-4103</p>
Therapy format	Family; case management
Therapy type	Cognitive behavioral
Setting	Outpatient clinic, community agency; in-home sessions
Evaluations and Findings	<p>Study 1 (Dennis et al., 2004, Trial 1) – no support for FSN: 300 adolescents with cannabis-related disorders (84% male; 73% White) were randomly assigned to receive FSN, MET/CBT12, or MET/CBT5. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months thereafter.</p> <ul style="list-style-type: none"> There were no significant differences among the treatments. The percent of participants in recovery at one year was 22% for FSN compared to 27% for MET/CBT5 and 17% for MET/CBT12. FSN was the least cost-effective intervention in the study. Cost per days abstinent: MET/CBT5 = \$4.91, MET/CBT12 = \$6.15, FSN = \$15.13. Cost per person in recovery: MET/CBT5 = \$3958, MET/CBT12 = \$7377, FSN = \$15116 <p>Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., ... & Funk, R. (2004). The Cannabis Youth Treatment (CYT) Study: main findings from two randomized trials. <i>Journal of Substance Abuse Treatment</i>, 27(3), 197-213.</p>
Rating Lists	NREPP: 3.7 on abstinence from substance use and recovery from substance use; 3.5 on cost-effectiveness.
ADAI Rating	Unsupported
Comment	<p>In the single RCT identified that evaluated FSN, the FSN intervention was found to be no more effective than the comparison interventions. Considering that the comparison interventions represented different subsets of the procedures contained in FSN (MET/CBT5 and MET/CBT12) and that FSN was quite a bit more expensive and involved much higher staff and client burden, we consider FSN to be unsupported by the current available evidence. The NREPP rating of cost effectiveness appears to be a rating of quality of research evidence rather than of cost effectiveness <i>per se</i>, which is very low compared to the other treatments studied.</p>

Functional Family Therapy (FFT)

Contact information	Program Developer: James Alexander, Ph.D.
Website	http://www.fftllc.com
Description of Intervention	Functional family therapy (FFT) is “a multisystemic approach that integrates and conceptually links behavioral and cognitive intervention strategies to the ecological formulation of the family disturbance. Problems such as substance use or running away are conceptualized as deriving from maladaptive family interaction patterns as well as limited coping and problem-solving skills. The primary focus of sessions is on family interaction and behavior change.” (Slesnick & Prestopnik, 2009) “The FFT intervention is applied in two phases. The first phase focuses on engaging families in the treatment process and enhancing motivation for change. Therapists strive to maximize families' expectations for positive change and to effect changes in attitudes and feelings by reducing blaming behavior and emphasizing the relationship aspects of identified problems. A family assessment, involving the identification of the interactional and functional aspects of specific behaviors, attributions, and feelings of family members, is also conducted during this phase. Once the initial phase is completed, the second phase is introduced, and the focus of treatment shifts to effecting behavioral changes in the family.” (Waldron et al., 2001).
Manual	Alexander JF; Waldron HB; Robbins MS, & Neeb AA. (2013). Functional Family Therapy for Adolescent Behavior Problems. Washington DC: American Psychological Association. http://www.apa.org/pubs/books/4317302.aspx
Therapy format	Family therapy
Therapy type	Family therapy
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Waldron et al., 2001) – Support for FFT: 120 adolescents (80% male, 38% White, 47% Hispanic/Latino) who were referred for drug abuse treatment, most of whom were mandated for treatment by the court, probation officers, or schools. Youths were eligible if they met criteria for a DSM-IV substance use disorder, not primarily abusing only alcohol, and had a parent/guardian who was willing to participate. Participants were randomly assigned to receive 12 hours of FFT, 12 hours of individual cognitive-behavioral therapy (CBT), 12 hours of psychoeducational group treatment, or 24 hours of FFT + CBT. Participants were assessed at baseline, and 4 and 7 months using the Timeline Followback.</p> <ul style="list-style-type: none"> • From baseline to 4 month follow-up, youths in the FFT condition, eta squared = .422, and in the joint condition, eta squared = .229, showed significant reductions in days of marijuana use. Youths in the CBT condition and in the group condition did not have a significant reduction in marijuana use. • From baseline to 7 month follow-up, youths in the joint treatment condition maintained a significant reduction in days using marijuana, eta squared = .243. Youths in the FFT condition were not

	<p>significantly different from baseline, eta squared = .102, suggesting that the changes at 4 months were not maintained at 7 months. Youths in the group condition significantly reduced their marijuana use, eta squared = .216. Youths in the CBT condition did not change significantly from pretreatment.</p> <ul style="list-style-type: none"> • There was a significant change in heavy to minimal use from pretreatment to 4 months in FFT (86.6% vs. 55.2%), CBT (96.8% vs. 72.4%), and joint (89.7% vs. 55.6%) conditions, but not in the group condition (96.7% vs. 87.8%). • From baseline to 7 months, there was a significant change from heavy use to minimal use in the FFT condition (86.6% vs. 62.1%), the joint condition (89.7% vs. 55.6%), and the group condition (96.7% vs. 69.0%), but not in the CBT condition (96.8% vs. 82.8%) <p>Waldron, H. B., Slesnick, N., Brody, J. L., Turner, C. W., & Peterson, T. R. (2001). Treatment outcomes for adolescent substance abuse at 4- and 7-month assessments. <i>Journal of Consulting and Clinical Psychology, 69</i>(5), 802.</p> <p>Study 2 (Slesnick & Prestopnik, 2009) – Support for FFT: 119 runaway adolescents (45% male, 29% White, 44% Hispanic/Latino) with a primary alcohol problem (89% meeting DSM-IV alcohol use disorder) were randomly assigned to receive 16 sessions of home-based Ecologically Based Family Therapy (EBFT), 16 sessions of office-based FFT, or services as usual (SAU). Participants were assessed with the Form 90, Child Diagnostic Interview Schedule, Adolescent Drinking Index, and Problem Oriented Screening Instrument at baseline, 3, 5 and 15 months post-baseline. .</p> <ul style="list-style-type: none"> • Percent days of alcohol or drug use declined more from baseline to 9 to 15 months in both EBFT (43, 21, 12) and FFT (43, 18, 13), compared to SAU (38, 32, 33), $p < .05$. • There were no significant differences between groups for any of the other variables. <p>Slesnick, N., & Prestopnik, J. L. (2009). Comparison of Family Therapy Outcome With Alcohol Marital and Family Therapy, <i>35</i>(3), 255-277. Journal of Runa</p>
Rating Lists	<p>Blueprints: Model program CEBC: 2 = Supported by research evidence NREPP: Rated 3.3 on substance use-related indices</p>
ADAI Rating	Evidence-based
Comment	<p>FFT is considered evidence-based. Two studies showed support for the intervention. Although Study 1 raised a question of whether changes in number of days using marijuana from baseline to 4 months were maintained at 7 months, the proportion heavily using marijuana at 7 months was significantly reduced from 86.6% to 62.1%.</p>

Motivational Enhancement Therapy (MET)	
Contact information	Program Developer: William Miller, Ph.D.

Website	None
Description of Intervention	<p>Motivational Enhancement Therapy (MET) is a counseling approach that helps individuals resolve their ambivalence about engaging in treatment and stopping their drug use. This approach aims to evoke rapid and internally motivated change, rather than guide the patient stepwise through the recovery process. This therapy consists of an initial assessment battery session, followed by two to four individual treatment sessions with a therapist. In the first treatment session, the therapist provides feedback to the initial assessment, stimulating discussion about personal substance use and eliciting self-motivational statements. Motivational interviewing principles are used to strengthen motivation and build a plan for change. Coping strategies for high-risk situations are suggested and discussed with the patient. In subsequent sessions, the therapist monitors change, reviews cessation strategies being used, and continues to encourage commitment to change or sustained abstinence. Patients sometimes are encouraged to bring a significant other to sessions. See http://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/evidence-based-approaches-to-drug-addiction-treatment/behavioral-2</p>
Manual	<p>Miller, W. R., Zweben, A., DiClemente, C. C., & Rychtarik, R. G. (1992). <i>Motivational Enhancement Therapy Manual A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence (Volume 2, Project MATCH Monograph Series)</i>. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.</p> <p>Miller, W. R. (1995). <i>Motivational Enhancement Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence (Vol. 2)</i>. DIANE Publishing.</p>
Therapy format	Individual
Therapy type	Motivational Enhancement/Motivational Interviewing
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Peterson et al., 2006) – modest support for MET:</p> <p>285 homeless adolescents, aged 13 to 19 (66% male; 41% White) who had at least one binge drinking episode or used illicit “street” drugs at least four times in the past 30 days were randomly assigned to receive a version of MET developed by the authors, assessment only (AO), or assessment at follow-up only (AFO). Participants were assessed at baseline, and 1-month and 3-month follow-up using the Timeline Followback and the Rutgers Alcohol Problem Index. Outcome variables were binge drinking, days of alcohol use, standard drink units, days of marijuana use, days of illicit drug use other than marijuana (log transformed), days of illicit drug use other than marijuana, and alcohol and drug use consequences.</p> <ul style="list-style-type: none"> • There was no evidence for a differential reduction in alcohol use on the basis of intervention group (interaction F statistics ranged from .001 to 1.087). The intervention also did not appear to

	<p>differentially influence marijuana use.</p> <ul style="list-style-type: none"> • There was a greater reduction in other illicit drug use for the MET group than for the AO group from baseline to 1-month follow-up, eta squared = .02, but the effect did not hold at 3-month follow-up. • There was no evidence that the intervention resulted in change in drug use consequences, nor was there any indication of a reduction in reported drug use consequences as measured in the RAPI during the follow-up period. <p>Peterson, P. L., Baer, J. S., Wells, E. A., Ginzler, J. A., & Garrett, S. B. (2006). Short-term effects of a brief motivational intervention to reduce alcohol and drug risk among homeless adolescents. <i>Psychology of Addictive Behaviors</i>, 20(3), 254.</p> <p>Study 2 (Baer et al., 2007) – no support for MET: 117 homeless adolescents, aged 14 to 19 (56% male; 58% White) who had at least one binge drinking episode or used illicit “street” drugs at least four times in the past 30 days were randomly assigned to receive a version of MET developed by the authors or treatment-as-usual (TAU). Participants were assessed at baseline, and 1-month and 3-month follow-up using the Timeline Followback. Outcome variables were binge drinking, days of alcohol use, standard drink units, days of marijuana use, days of illicit drug use other than marijuana (log transformed), and days of illicit drug use other than marijuana.</p> <ul style="list-style-type: none"> • There was no evidence for a differential reduction in alcohol or drug use on the basis of intervention group. Both groups evidenced increases in rates of abstinence over time. <p>Baer, J. S., Garrett, S. B., Beadnell, B., Wells, E. A., & Peterson, P. L. (2007). Brief motivational intervention with homeless adolescents: evaluating effects on substance use and service utilization. <i>Psychology of Addictive Behaviors</i>, 21(4), 582.</p> <p>Study 3 (Slesnick et al., 2015) – support for MET: 270 homeless adolescents and young adults with substance use disorder (66% male; 41% White) were randomly assigned to receive ACRA, MET, or case management. Participants were assessed with the Form 90.</p> <ul style="list-style-type: none"> • No significant differences were found between treatment conditions in ITT analyses. All three treatments exhibited medium to high effect sizes (ds = -0.29 to -0.71) on frequency of SU from baseline to the 6-month follow-up. • Over 50% of participants in ACRA improved with regard to frequency of alcohol or drug use; about 25% stayed the same and about 25% deteriorated. Results were comparable for MET and case management. <p>Slesnick, N., Guo, X., Brakenhoff, B., & Bantchevska, D. (2015). A Comparison of Three Interventions for Homeless Youth Evidencing Substance Use Disorders: Results of a Randomized Clinical Trial. <i>Journal of Substance Abuse Treatment</i>, 54, 1-13.</p>
Rating Lists	NREPP = Rated 2.6-3.5 out of 5 for research on adults MET as a standalone therapy does not appear on rating lists for adolescents.
ADAI Rating	Promising

Comment	MET as a standalone therapy or in conjunction with a therapy other than CBT is considered promising (MET/CBT is rated separately). It is noteworthy that Studies 1 and 2, which showed weak or no support for MET did not follow the Project MATCH manual as was followed in Study 3, which showed stronger support for MET. Other forms of MET (Teen Marijuana Check Up and Adolescent Cannabis Check Up) were rated as research-based (TMCU) and promising (ACCU). More studies are needed to evaluate whether MET can demonstrate reliable and sustained positive outcomes.
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Motivational Enhancement Therapy and Cognitive Behavioral Therapy (MET/CBT)	
Contact information	Program developer: Ronald M. Kadden, PhD, 800-535-6032, kadden@psychiatry.uhc.edu
Description of Intervention	<p>MET/CBT5 is a 5 session treatment composed of 2 individual sessions of MET and 3 weekly group sessions of CBT. The MET sessions focus on factors that motivate participants who abuse substances to change, while in the CBT sessions, participants learn skills to cope with problems and meet needs in ways that do not involve turning to marijuana or alcohol, including how to refuse marijuana; how to increase the adolescent's social support network and non-drug activities; and how to avoid and cope with relapses. This approach provides the shortest (5 sessions) therapy among the CYT approaches, and appeals to managed care and families with limited resources.</p> <p>MET/CBT12 is a 12 session treatment composed of 2 sessions of MET and 10 weekly group sessions of CBT. This treatment is designed to provide more of the same kind of treatment as MET/CBT5 to test for dosage effects and is more in line with what many providers try to offer. Focuses on teaching techniques for: Anger management; problem solving; communications skills; coping with cravings and urges to use marijuana; depression management; planning for high-risk situations; relapse prevention.</p>
Manual	<p>Sampl, S., Kadden, R., 2001. <i>Motivational Enhancement Therapy and Cognitive Behavioral Therapy for Adolescent Cannabis Users: 5 Sessions, vol. 1</i>. Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, Rockville, MD. http://store.samhsa.gov/shin/content//SMA05-4010/SMA05-4010.pdf</p> <p>Webb, C. P. M., Scudder, M., Kaminer, Y., Kadden, R., 2001. <i>The Motivational Enhancement Therapy and Cognitive Behavioral Therapy for Adolescent Cannabis Users, vol. 2</i>. Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, Rockville, MD. https://store.samhsa.gov/shin/content/SMA08-3954/SMA08-3954.pdf</p>
Therapy format	Individual; Group
Therapy type	Motivational enhancement; Cognitive behavioral (MET/CBT)
Setting	Outpatient clinic, community agency

Evaluations and Findings

Study 1 (Dennis et al., 2004, Trial 1) – support for MET/CBT5:

300 adolescents with cannabis-related disorders (84% male; 73% White) were randomly assigned to receive MET/CBT12, MET/CBT5, or Family Support Network (FSN), which consisted of MET/CBT12 plus additional sessions and procedures. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months thereafter.

- There were no significant differences among the treatments. The percent of participants in recovery at one year was 27% for MET/CBT5 compared to 22% for FSN and 17% for MET/CBT12. MET/CBT5 was the most cost-effective intervention in the study. Cost per days abstinent: MET/CBT5 = \$4.91, MET/CBT12 = \$6.15, FSN = \$15.13. Cost per person in recovery: MET/CBT5 = \$3958, MET/CBT12 = \$7377, FSN = \$15116

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., ... & Funk, R. (2004). The Cannabis Youth Treatment (CYT) Study: main findings from two randomized trials. *Journal of Substance Abuse Treatment*, 27(3), 197-213.

Study 2 (Dennis et al., 2004, Trial 2) – support for MET/CBT5:

300 adolescents with cannabis-related disorders (81% male; 49% White) were randomly assigned to receive MET/CBT5, Adolescent Community Reinforcement Approach (ACRA), or Multi-Dimensional Family Therapy (MDFT). Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months thereafter.

- There were no significant differences among the treatments. MET/CBT5 had the second highest percent of participants in recovery at 12 months: ACRA = 34%, MET/CBT5 = 23%, MDFT = 19%, condition effect Cohen's $f = 0.16$.
- MET/CBT5 was the second most cost-effective intervention studied. Cost per days abstinent: MET/CBT5 = \$9.00, ACRA = \$6.62, MDFT = \$10.38. Cost per person in recovery: MET/CBT5 = \$6611, ACRA = \$4460, MDFT = \$11775

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., ... & Funk, R. (2004). The Cannabis Youth Treatment (CYT) Study: main findings from two randomized trials. *Journal of Substance Abuse Treatment*, 27(3), 197-213.

Study 3, Godley et al., 2010 – modest support for MET/CBT7

For this study, MET/CBT5 was supplemented with two family sessions to address concerns raised about the lack of parent involvement in the intervention. 320 adolescents (76% male; 73% White, 73% involved in criminal justice system) were randomly assigned. Half received a primary treatment of MET/CBT7 and half received Chestnut's Bloomington Outpatient Program (CBOP) as their primary treatment. Half of each of these groups received Assertive Continuing Care (ACC) aftercare, resulting in 4 conditions: MET/CBT7, CBOP, MET/CBT7+ACC, CBOP+ACC. Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months after admission.

- Findings were not significantly different by condition. The average percentage of days abstinent at follow-up was higher than baseline in all four conditions, with the increase in the percentage of days

abstinent higher for the two CBOP conditions (10.6% and 10.9%) than the two MET/CBT7 conditions (5.0% and 6.1%).

- The percentage in recovery at 12 month follow-up for each condition was: 29% for CBOP, 38% for CBOP+ACC, 44% for MET/CBT7, and 30% for MET/CBT7+ACC.
- MET/CBT7 without ACC was the most cost-effective condition. Average cost per days abstinent: MET/CBT7 = \$4.25, MET/CBT7+ACC = \$14.97, CBOP = \$14.00, CBOP+ACC = \$19.37

Godley, S. H., Garner, B. R., Passetti, L. L., Funk, R. R., Dennis, M. L., & Godley, M. D. (2010). Adolescent outpatient treatment and continuing care: Main findings from a randomized clinical trial. *Drug and Alcohol Dependence*, 110(1), 44-54.

Study 4, Stanger et al., 2009- modest support for MET/CBT12:

69 adolescents (83% male, 91% White) were randomized to receive either MET/CBT12 (CTL) or MET/CBT12+Contingency Management (EXP). Participants were assessed with the urine toxicology and the timeline followback at baseline, post-treatment, and 3, 6, and 9 months post-treatment.

- There were no significant treatment or time × treatment interaction effects. Across conditions, prevalence of marijuana use assessed by urine analysis (UA) decreased during treatment but then increased during follow-up and began to level off approaching baseline levels at intake.
- MET/CBT12+CM showed higher rates of marijuana abstinence than MET/CBT12 only at each time point, but these findings did not reach statistical significance. The percent with a positive UA in each condition (EXP | CTL) was approximately 61 | 69 at intake, 28 | 31 at discharge, 37 | 64 at 3 months, 41 | 56 at 6 months, and 46 | 63 at 9 months.
- Self-reported mean % days using marijuana use decreased during treatment but then increased during follow-up and began to level off below baseline levels. The mean percent of self-reported days used marijuana in each condition (EXP | CTL) was approximately 44 | 56 at intake, 9 | 12 at discharge, 7 | 17 at 3 months, 16 | 20 at 6 months, and 15 | 29 at 9 months.
- Similar results were reportedly found for self-reported alcohol use but no data were provided; the researchers reported that percent of days used alcohol declined from intake to the 3-month follow-up, but increased from 6 to 9 months.

Stanger, C., Budney, A. J., Kamon, J. L., & Thostensen, J. (2009). A randomized trial of contingency management for adolescent marijuana abuse and dependence. *Drug and Alcohol Dependence*, 105(3), 240-247.

Study 5, Ramchand et al., 2011- support for MET/CBT5:

A quasi-experimental study by Ramchand et al. (2011) compared MET/CBT5 to treatment programs at three community-based programs selected for evidence of efficacy. Youth who received MET/CBT5 exhibited greater reductions in substance use frequency, substance use problems, and illegal behaviors 12 months after treatment entry than those who had entered the community-based outpatient programs. Results showed no evidence that youth who received MET/CBT5 would have fared better with respect to emotional

	<p>problems, the likelihood of being institutionalized, or achieving a "recovery" status at 12 months had they received community-based treatments.</p> <p>Ramchand, R., Griffin, B. A., Suttorp, M., Harris, K. M., & Morral, A. (2011). Using a cross-study design to assess the efficacy of motivational enhancement therapy-cognitive behavioral therapy 5 (MET/CBT5) in treating adolescents with cannabis-related disorders. <i>Journal of Studies on Alcohol and Drugs</i>, 72(3), 380.</p>
Rating Lists	<p>CEBC: 3 = Promising research evidence</p> <p>NREPP: Rated 3.4 on substance use-related indices</p>
ADAI Rating	Evidence-based
Comment	MET/CBT is considered evidence-based. Multiple RCTs indicate sustained improvements in substance use outcomes. Interestingly, the best results were observed for MET/CBT5. Longer interventions, while efficacious, (MET/CBT7 and MET/CBT12) were not clearly superior to MET/CBT5.

MET/CBT Aftercare (MET/CBT-A)	
Contact information	Program Developer: Yifrah Kaminer, MD, MBA, and Chris Napolitano, MS, LMFT
Website	http://www.hazelden.org
Description of Intervention	<p>The brief telephone therapy program is designed to deliver a treatment regimen of continuing care for adolescents and young adults who have a mild to moderate substance use disorder and have recently completed a more intensive course of treatment. The program is brief both in the number of sessions (five) and the time required to deliver the sessions. It is designed to be implemented over a twelve-week period. The first session is a fifty-minute office session, while the remaining four sessions should take approximately fifteen minutes each. Ideally, session 1 should occur within two weeks of the completion of the more intensive AOSUD treatment phase. Sessions 2 and 3 are delivered two weeks following session 1 (and are also two weeks apart). Sessions 4 and 5 are delivered three weeks after session 3 (and are also three weeks apart). See https://www.hazelden.org/HAZ_MEDIA/7918_brief_telephone_continuingcare_therapy.pdf.</p>
Manual	Kaminer, Y., & Napolitano, C. (2010) <i>Brief Telephone Continuing Care Therapy for Adolescents</i> . Minneapolis, MN: Hazelden. https://www.hazelden.org/HAZ_MEDIA/7918_brief_telephone_continuingcare_therapy.pdf
Therapy format	Individual, in person or via telephone
Therapy type	Motivational enhancement; Cognitive behavioral (MET/CBT)
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Kaminer et al., 2008) – support for MET/CBT-A:</p> <p>144 substance abuse CBT treatment-completing adolescents, aged 13 to 18 (67% male; at least 79% White, 13.2% Latino, 4.2% African American) were randomly assigned to receive either no aftercare (NAC) or active</p>

	<p>aftercare (AAC) in the form of either 5 in person (IP) MET/CBT sessions or comparable content in 5 brief telephone (BT) sessions. Efforts were made to reassess all study participants including non-completers with the Alcohol Consumption Questionnaire and urinalysis at end of treatment (before aftercare) and end of aftercare.</p> <ul style="list-style-type: none"> • There was no significant differential change for IP vs. BT conditions. Significant differences were observed only for AAC vs. NAC. • Youth in AAC showed significantly less number of drinking days per month ($p = .044$) as well as number of heavy drinking days per month use ($p = .035$) relative to NAC. • With regard to marijuana use, there was no significant differential change from as a function of AAC vs. NAC. <p>Kaminer, Y., Burleson, J. A., & Burke, R. H. (2008). Efficacy of outpatient aftercare for adolescents with alcohol use disorders: a randomized controlled study. <i>Journal of the American Academy of Child & Adolescent Psychiatry</i>, 47(12), 1405-1412.</p> <p>Study 2 (Burleson et al., 2012) – support for MET/CBT-A:</p> <p>Longer-term outcomes of study reported in Kaminer et al., 2008. 144 substance abuse CBT treatment-completing adolescents, aged 13 to 18 (67% male; at least 79% White, 13.2% Latino, 4.2% African American) were randomly assigned to receive either no aftercare (NAC) or active aftercare (AAC) in the form of either 5 in person (IP) MET/CBT sessions or comparable content in 5 brief telephone (BT) sessions. Participants were assessed with the Alcohol Consumption Questionnaire at end of treatment (before aftercare), end of aftercare, and at 3-, 6-, and 12-month post-scheduled aftercare completion follow-ups.</p> <ul style="list-style-type: none"> • Across conditions, participants generally increased their number of drinking occasions per month (frequency) and the number of drinks per drinking occasion (quantity) across the 1-year follow-up period. • There was no significant differential change for IP vs. BT conditions. • AAC was associated with marginally better outcomes than NAC over the 12- month follow-up period; however, differences did not reach significance. <p>Burleson, J. A., Kaminer, Y., & Burke, R. H. (2012). Twelve-month follow-up of aftercare for adolescents with alcohol use disorders. <i>Journal of Substance Abuse Treatment</i>, 42(1), 78-86.</p>
Rating Lists	None
ADAI Rating	Promising
Comment	<p>MET/CBT Aftercare is considered promising. We found only one study with two articles: one with short-term outcomes and one with longer-term outcomes. The study had relatively low racial/ethnic minority participation. Shorter term outcomes significantly favored active aftercare (whether in person or via telephone) no active aftercare. However, the difference did not remain significant over the 12 month follow-up period described in the second article. More studies are needed to examine the utility of MET/CBT</p>

aftercare with a diverse sample and to demonstrate sustained improvements over time.

Multidimensional Family Therapy (MDFT)	
Contact information	Program developer: Howard A. Liddle, Ed.D., 305-243-6860, hliddle@med.miami.edu
Website	http://www.mdft.org/
Description of Intervention	<p>Multidimensional Family Therapy (MDFT) for Adolescents is an outpatient family-based drug abuse treatment for teenage substance abusers. Delivered across a flexible series of 12 to 16 weekly or twice weekly 60- to 90-minute sessions, MDFT is a manual-driven intervention with specific assessment and treatment modules that target four areas of social interaction: (1) the youth's interpersonal functioning with parents and peers, (2) the parents' parenting practices and level of adult functioning independent of their parenting role, (3) parent-adolescent interactions in therapy sessions, and (4) communication between family members and key social systems (e.g., school, child welfare, mental health, juvenile justice).</p> <p>From the perspective of MDFT, adolescent drug use is understood in terms of a network of influences (i.e., individual, family, peer, community). This multidimensional approach suggests that reductions in target symptoms and increases in prosocial target behaviors occur via multiple pathways, in differing contexts and through different mechanisms. The therapeutic process is thought of as retracking the adolescent's development in the multiple ecologies of his or her life. The therapy is phasically organized, and it relies on success in one phase of the therapy before moving onto the next. Knowledge of normal development and developmental psychopathology guides the overall therapeutic strategy and specific interventions.</p> <p>As its name implies, MDFT is an integrative therapeutic philosophy and clinical approach. The treatment format includes individual and family sessions, and sessions with various family and extra family sessions. Interventions work within the multiple ecologies of adolescent development, and they target the processes known to produce and/or maintain drug taking and related problem behaviors.</p>
Manual	<p>Liddle, H. A. (2009). <i>Multidimensional Family Therapy for Adolescent Drug Abuse: Clinician's Manual</i>. Center City, MN: Hazelden Publishing Co.</p> <p>Liddle, H. A. (2002). <i>Multidimensional Family Therapy for Adolescent Cannabis Users</i>. <i>Cannabis Youth Treatment (CYT) Series, Volume 5</i>. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.</p>
Therapy format	Family; Individual
Therapy type	Behavioral

Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Liddle et al., 2001) – support for MDFT: 182 adolescents, aged 13 to 18 (80% male, 51% White), who were using any illegal substance other than alcohol at least three times per week were randomized to 16 sessions of multidimensional family therapy (MDFT), adolescent group therapy (AGT), or multifamily educational intervention (MEI). Participants’ severity of drug use was rated on a Guttman-type scale at intake, termination, and 6 and 12 months following termination.</p> <ul style="list-style-type: none"> • Compared to those receiving AGT and MEI, those receiving MDFT showed the most improvement from intake to termination (eta squared = .12) and from intake to 12 months (eta squared = .05). • Average drug use severity in the MDFT condition dropped from 9.9 at intake to 4.8 at termination and remained lowered to 5.0 at 6 months and 4.3 at 12 months. The trajectory of ratings was 8.8 to 7.3 to 6.1 to 5.1 in the AGT condition and 10.0 to 7.3 to 6.9 to 7.3 in the MEI condition. • At termination, 42% of the youths who received MDFT, in comparison to 25% in AGT and 32% in MEI, reported clinically significant reduction in drug use. At the 1-year follow-up, 45% in MDFT, 32% in AGT, and 26% in MEI demonstrated clinically significant change in that their drug use was below initial treatment entry criteria <p>Liddle, H. A., Dakof, G. A., Parker, K., Diamond, G. S., Barrett, K., & Tejada, M. (2001). Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. <i>The American Journal of Drug and Alcohol Abuse</i>, 27(4), 651-688.</p> <p>Study 2 (Liddle et al., 2004) – support for MDFT: 80 urban, low-income and ethnically diverse adolescents, aged 11 to 15 referred for substance abuse and behavioral problems were randomly assigned to either MDFT or adolescent group therapy (AGT). Participants were assessed for substance abuse at intake, six weeks after intake, and at discharge.</p> <ul style="list-style-type: none"> • MDFT was significantly more effective than AGT in reducing risk and promoting protective processes in the individual, family, peer, and school domains, as well as in reducing substance use over the course of treatment. <p>Liddle, H. A., Rowe, C. L., Dakof, G. A., Ungaro, R. A., & Henderson, C. E. (2004). Early intervention for adolescent substance abuse: pretreatment to posttreatment outcomes of a randomized clinical trial comparing multidimensional family therapy and peer group treatment. <i>Journal of Psychoactive Drugs</i>, 36(1), 49-63.</p> <p>Study 3 (Dennis et al., 2004, Trial 2) – weak support for MDFT: 300 adolescents with cannabis-related disorders (81% male; 49% White) were randomly assigned to receive the Adolescent Community Reinforcement Approach (ACRA), five sessions of Motivational Enhancement Therapy/Cognitive Behavioral Therapy (MET/CBT5), or Multi-Dimensional Family Therapy (MDFT). Participants were assessed with the GAIN at baseline and 3, 6, 9, and 12 months thereafter.</p> <ul style="list-style-type: none"> • There were no significant differences among the treatments. ACRA had the highest percent of participants in recovery at 12 months: ACRA = 34%, MET/CBT5 = 23%, MDFT = 19%, condition effect

Cohen's $f = 0.16$.

- ACRA was found to be more cost-effective than the other interventions. Cost per days abstinent: MET/CBT5 = \$9.00, ACRA = \$6.62, MDFT = \$10.38. Cost per person in recovery: MET/CBT5 = \$6611, ACRA = \$4460, MDFT = \$11775

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., ... & Funk, R. (2004). The Cannabis Youth Treatment (CYT) Study: main findings from two randomized trials. *Journal of Substance Abuse Treatment*, 27(3), 197-213.

Study 4 (Liddle et al., 2008a) – support for MDFT:

224 drug-using youth (75% meeting DSM-IV criteria for cannabis dependence), aged 12 to 17.5 years (81% male, 72% African American) were randomly assigned to either MDFT or Cognitive Behavioral Therapy (CBT).

Participants were assessed for frequency of drug use and psychological involvement in drug use at intake, termination, and 6 and 12 months following treatment termination.

- Both treatments evidenced significant decreases in frequency of cannabis use and substance abuse problem severity and marginally significant decreases in alcohol use.
- Compared to those in CBT, participants in MDFT retained more treatment gains at the 6-and 12-month follow-ups, used fewer drugs other than cannabis and alcohol, and were more likely to report minimal substance use (zero or one occasion) at the 12-month follow-up.

Liddle, H. A., Dakof, G. A., Turner, R. M., Henderson, C. E., & Greenbaum, P. E. (2008a). Treating adolescent drug abuse: A randomized trial comparing multidimensional family therapy and cognitive behavior therapy. *Addiction*, 103(10), 1660-1670.

Study 5 (Liddle et al., 2009) – support for MDFT:

Longer-term outcomes of study reported in Liddle et al., 2004. 83 adolescents, aged 11 to 15 (76% male, 3% White Non-Hispanic, 42% Hispanic, 38% African American), who were referred for outpatient treatment for a substance abuse problem, were randomly assigned to 12-16 weeks of semi-weekly sessions of MDFT or adolescent group therapy (AGT). Participants were assessed with the Timeline Followback at intake, 6-weeks post-intake, discharge, and 6 and 12 months following treatment intake and with the Global Appraisal of Individual Needs (GAIN) at intake and at 6 and 12 months following treatment intake.

- The proportion of youths abstaining from alcohol and drug use increased overall in the 12-month follow-up period ($p < .001$).
- Compared to those receiving AGT, youths in MDFT reported fewer days of substance use as well as a tendency to report increased abstinence from drugs and alcohol.
- 7% of youths in MDFT reported using drugs in the previous 30 days at the 12-month follow-up. In contrast, 45% of youths in group treatment reported substance use in the previous 30 days at the 12-month follow-up, which was a significantly larger proportion than the MTF sample ($p < .001$).

Liddle, H. A., Rowe, C. L., Dakof, G. A., Henderson, C. E., & Greenbaum, P. E. (2009). Multidimensional family therapy for young adolescent substance abuse: twelve-month outcomes of a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 77(1), 12-25.

Study 6 (Henderson et al., 2010) – modest support for MDFT:

An article by Henderson et al. (2010) reports a secondary analysis of two trials. The first trial is described above as Liddle et al., 2008a (Study 4). The second trial, described here, was originally reported in Liddle et al., 2008b. 154 adolescents, aged 13 to 17 (83% male, 17% White Non-Hispanic, 60% African American, 22% Hispanic), enrolled in two juvenile detention facilities in Florida and endorsing substance abuse problems were randomly assigned to receive MDFT or enhanced services as usual (ESAU). Participants were assessed with the Timeline Followback and Personal Involvement with Chemicals (PIC) subscale of the Personal Experience Inventory at intake, 3 months, 6 months, and 9 months.

- MDFT was more effective than ESAU in decreasing substance use frequency among a class of youths demonstrating greater baseline substance use and psychiatric comorbidity. However, there were no significant treatment differences in decreases in substance use for the class reporting lower levels of baseline substance use and less psychiatric comorbidity.

Liddle, H. A., Rowe, C. L., Dakof, G. A., & Henderson, C. E. (2008b, August). The effectiveness of cross-systems multidimensional family therapy for justice-involved youth. In N. Jainchill (Chair), Evidence-based substance abuse treatment services for justice-involved youth. Symposium conducted at the meeting of the American Psychological Association, Boston, MA.

Henderson, C. E., Dakof, G. A., Greenbaum, P. E., & Liddle, H. A. (2010). Effectiveness of multidimensional family therapy with higher severity substance-abusing adolescents: report from two randomized controlled trials. *Journal of Consulting and Clinical Psychology*, 78(6), 885.

Study 7 (Hendricks et al., 2011) – modest support for MDFT:

109 adolescents with a cannabis use disorder in The Netherlands were randomly assigned to MDFT or CBT, both with a planned treatment duration of 5-6 months, and with study assessments at baseline and at 3, 6, 9 and 12 months following baseline. Main outcome measures were cannabis use, delinquent behavior, treatment response and recovery at one-year follow-up, and treatment intensity and retention.

- Adolescents in both treatments showed significant and clinically meaningful reductions in cannabis use and delinquency from baseline to one-year follow-up, with treatment effects in the moderate range.
- A substantial percentage of adolescents in both groups met the criteria for treatment response at month 12.
- Treatment intensity and retention was significantly higher in MDFT than in CBT.
- Post hoc subgroup analyses suggested that high problem severity subgroups at baseline may benefit more from MDFT than from CBT.

Hendriks, V., van der Schee, E., & Blanken, P. (2011). Treatment of adolescents with a cannabis use disorder: Main findings of a randomized controlled trial comparing multidimensional family therapy and cognitive behavioral therapy in The Netherlands. *Drug and Alcohol Dependence*, 119(1), 64-71.

Study 8 (Rigter et al., 2013) – support for MDFT:

	<p>MDFT was compared with individual psychotherapy (IP) across several European countries. Positive outcomes were found in both the MDFT and IP conditions. MDFT outperformed IP on the measures of treatment retention ($p < 0.001$) and prevalence of cannabis dependence ($p = 0.015$). MDFT reduced the number of cannabis consumption days more than IP in a subgroup of adolescents reporting more frequent cannabis use ($p = 0.002$). Cannabis use disorder was responsive to treatment. MDFT exceeded IP in decreasing the prevalence of cannabis dependence. MDFT is applicable in Western European outpatient settings, and may show moderately greater benefits than IP in youth with more severe substance use.</p> <p>Rigter, H., Henderson, C. E., Pelc, I., Tossmann, P., Phan, O., Hendriks, V., ... & Rowe, C. L. (2013). Multidimensional family therapy lowers the rate of cannabis dependence in adolescents: A randomised controlled trial in Western European outpatient settings. <i>Drug and Alcohol Dependence</i>, 130(1), 85-93.</p>
Rating Lists	<p>CEBC: 1 = Well supported by research evidence NREPP: Rated 3.2 on substance-use related indices ODJJP: Effective WSIPP: Research-based</p>
ADAI Rating	Evidence-based
Comment	MDFT has been supported in multiple randomized trials, and the weight of evidence indicates sustained improvements in indices of substance use.

Multisystemic Therapy (MST)	
Contact information	<p>Developers: Scott W. Henggeler, mhengesw@muscd.edu and Charles Borduin. For information about program development, treatment model dissemination, and training, contact: Melanie Duncan, melanie.duncan@mstservices.com</p>
Website	http://www.mstservices.com/
Description of Intervention	<p>Multisystemic Therapy (MST) is an intensive, family-based treatment approach for improving the antisocial behavior of serious juvenile offenders. MST seeks to reduce youth criminal activity and other kinds of negative behavior (for example, drug abuse) in a cost-effective manner by limiting the need for incarceration or other types of out-of-home placement. Adaptations of MST have also been developed for child abuse and neglect, psychiatric issues, substance abuse, and problem sexual behavior.</p> <p>MST model is based on the belief that youth behavior is determined by multiple factors, such as youth's social and cognitive development, family relations, peer interactions, and community influences, and that each of these factors can be targeted to promote positive behavioral change. Thus, depending on the youth's individual circumstances, MST treatment may aim to improve a caregiver's discipline practices, decrease the</p>

	<p>youth's interaction with deviant peers, improve the youth's school performance, or aim to produce other positive results. The MST approach is guided by nine principles:</p> <ul style="list-style-type: none"> • Finding the Fit—how youth problems relate to youth's environment • Focusing on Positives and Strengths—build on strengths currently present in youth's lives • Increasing Responsibility—promote responsible behavior • Present-Focused, Action-Oriented and Well-Defined—focus on actions that can happen immediately and have clear outcomes that can be measured • Targeting Sequences—target the interaction between youth and external influences • Developmentally Appropriate—appropriate to youth's age and developmental needs • Continuous Effort—families are expected to show effort on a daily or weekly basis • Evaluation and Accountability—the MST team is responsible for overcoming barriers to success, and intervention effects are monitored continuously • Generalization—youth's caregivers are equipped to handle all family issues after intervention ends. <p>MST treatment is conducted in natural settings (for example, in the youth's home, school, or community) under the premise that youths and their families must learn how to function more effectively within their natural environment if they are to sustain improvements after treatment concludes. Specific systems to target for treatment are determined by each youth's situation; however, the focus of MST is to teach parents how to be more effective at managing their child's activities and develop positive support systems.</p>
Manual	Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., & Cunningham, P. B. (2009). <i>Multisystemic Therapy for Antisocial Behavior in Children and Adolescents</i> . Guilford Press.
Therapy format	Family
Therapy type	Behavioral
Setting	Natural settings, for example, in the youth's home, school, or community
Evaluations and Findings	<p>Study 1 (Henggeler et al., 1999) - no support for MST: 118 juvenile offenders, aged 12-17 (79% male, 47% White, 50% African American), meeting <i>DSM-III-R</i> criteria for substance abuse or dependence were randomly assigned to receive either MST or usual community services (UCS). Outcomes were assessed using the Personal Experience Inventory at baseline, post-treatment, and at a 6-month post-treatment follow-up.</p> <ul style="list-style-type: none"> • Youth reports of alcohol/marijuana use decreased significantly from baseline to post-treatment, but the conditions did not differ. Significant decreases were not maintained at 6-month follow-up. <p>Henggeler SW, Pickrel SG, Brondino MJ. (1999). Multisystemic treatment of substance-abusing and dependent delinquents: outcomes, treatment fidelity, and transportability. <i>Mental Health Services Research</i>, 1(3), 171-184.</p>

Study 2 (Henggeler et al., 2006) – support for MST:

161 juvenile offenders meeting diagnostic criteria for substance abuse or dependence, aged 12-17 (83% male, 31% White, 67% African American), meeting *DSM-IV* criteria for substance abuse or dependence were randomly assigned to receive either family court with usual community services (FC-UCS), drug court with usual community services (DC-UCS), drug court with MST (DC-MST), or drug court with MST enhanced with contingency management (DC-MST+CM). Outcomes were assessed with the Form 90 and urine drug screens at pretreatment, 4 months, and 12 months.

- For alcohol use, significant effects were observed only for youths in the DC/MST/CM condition. Self-reported alcohol use decreased significantly from pretreatment to 4 months ($p < .009$) and 12 months ($p < .008$).
- For the first 4 months of drug court, youths in the DC/MST and DC/MST/CM conditions had significantly lower percentages of positive drug screens than did their DC counterparts ($ps < .001$; DC = 69%, DC/MST = 28%, DC/MST/CM = 18%).
- At 12 months, controlling for baseline scores, youths in the DC/MST and DC/MST/CM conditions reported significantly less heavy alcohol use than did those in the FC condition.
- For the time period between 4 and 12 months, youths in the DC/MST and DC/MST/CM conditions had significantly lower percentages of positive drug screens than did their DC counterparts ($ps < .001$; DC = 45%, DC/MST = 7%, DC/MST/CM = 17%).
- In comparison with DC youths, counterparts in the DC/MST and DC/MST/CM conditions had very large ESs for negative urine screens at T2 (1.38 and 2.05, respectively) and T3 (1.27 and .82, respectively).
- Marijuana use decreased rapidly to 4 months and then either leveled off or increased slightly to T3. At T3, however, controlling for T1 scores, youths in the DC/MST and DC/MST/CM conditions reported less marijuana use than FC counterparts.

Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. *Journal of Consulting and Clinical Psychology, 74*(1), 42.

Study 3 (Timmons-Mitchell et al., 2006) – support for MST:

93 youth who appeared before a county family court (78% male, 78% White, 16% African American), were randomly assigned to receive either MST or treatment as usual (TAU). Substance use outcomes were assessed with the Child and Adolescent Functional Assessment Scale (CAFAS) at pretreatment, discharge, and 6 months post-treatment.

- GLM analysis of the CAFAS substance use scale indicated a significant Time effect, $F(2) = 6.45, p = .002$, and a nonsignificant trend for the Time \times Group interaction effect, $F(2) = 3.13, p = .048$.
- In the MST condition, substance use scores changed from 10.6 to 4.0 to 6.5. In the TAU condition, substance use scores changed from 12.0 to 10.7 to 13.1.

Timmons-Mitchell J, Bender MB, Kishna MA, Mitchell CC. (2006). An independent effectiveness trial of Multisystemic Therapy with juvenile

	justice youth. Journal of Clinical Child and Adolescent Psychology, 35(2), 227-236
Rating Lists	Blueprints rating = Model program CEBC: 1 = Well supported by research evidence NREPP: 3.3 on scale of 0–4
ADAI Rating	Promising
Comment	MST is considered promising with regard to adolescent substance abuse. The evidence for MST is stronger for outcomes other than substance abuse-related outcomes. We identified three RCTs that examined MST effects on substance abuse-related outcomes. In Study 1, there was no support for MST with regard to adolescent substance abuse. In Study 2, the effects of MST were not examined on their own; MST was examined only in conjunction with drug court and drug court + contingency management. The effects appear promising, but it was unclear to what extent MST was responsible for improvements in substance abuse outcomes. In Study 3, the condition by time interaction was marginally significant; improvements from baseline to discharge were not clearly maintained at 6 month follow-up. Furthermore, youth in Study 3 did not report high rates of substance use at baseline. More studies are needed to substantiate the effectiveness of MST for substance abuse outcomes with adolescents.

Seeking Safety for Adolescents (SSA)	
Contact information	Program Developer: Lisa Najavits, Ph.D.
Website	http://www.treatment-innovations.org/seeking-safety.html
Description of Intervention	Seeking Safety is an evidence-based, present-focused counseling model to help people attain safety from trauma and/or substance abuse. It directly addresses both trauma and addiction, without requiring clients to delve into the trauma narrative. It can be conducted in group or individual format; for men and women; adults or adolescents; for any length of treatment; any level of care (e.g., outpatient, inpatient, residential); any type of trauma, any type of substance. Clients do not have to meet formal criteria for PTSD or substance abuse-- it is often used as a general model to teach coping skills. Seeking Safety has been successfully implemented for many years across vulnerable populations including homeless, criminal justice, domestic violence, severely mentally ill, veterans and military, and others. Seeking Safety offers 25 topics that can be conducted in any order and as few or many as time allows: Introduction/Case Management, Safety, PTSD: Taking Back Your Power, When Substances Control You, Honesty, Asking for Help, Setting Boundaries in Relationships, Getting Others to Support Your Recovery, Healthy Relationships, Community Resources, Compassion, Creating Meaning, Discovery, Integrating the Split Self, Recovery Thinking, Taking Good Care of Yourself, Commitment, Respecting Your Time, Coping with Triggers, Self-Nurturing, Red and Green Flags,

	Detaching from Emotional Pain (Grounding). Life Choices, and Termination. See http://www.treatment-innovations.org/ss-description.html .
Manual	Najavits, L. M. (2002). <i>Seeking Safety. A Treatment Manual for PTSD and Substance Abuse</i> . New York, NY: The Guilford Press. http://www.treatment-innovations.org/store/p2/Seeking_Safety_book_-_English_language.html
Therapy format	Individual, group
Therapy type	Cognitive-behavioral
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1 (Najavits et al., 2006) –support for SSA: 33 adolescent females, average age 16 years, with posttraumatic stress disorder (PTSD) and substance use disorder (SUD) who reported active substance use within the past 60 days (79% White), were randomly assigned to receive SSA+ treatment as usual or treatment as usual (TAU) alone. Outcomes were assessed using the Personal Experiences Inventory at intake, post-treatment, and at a 3-month follow-up.</p> <ul style="list-style-type: none"> For chemical involvement problem severity, seven of ten subscales showed significant outcomes, with SSA better than TAU. Effect sizes ranged from 0.37 to 1.17. Subscales that were not significant were personal consequences of drug use, social-recreational drug use, and personal involvement with chemicals. <p>Najavits, L. M., Gallop, R. J., & Weiss, R. D. (2006). Seeking safety therapy for adolescent girls with PTSD and substance use disorder: A randomized controlled trial. <i>Journal of Behavioral Health Services & Research</i>, 33(4), 453-463.</p>
Rating Lists	CEBC: 3 = Promising research evidence NREPP = 2.1-3.3 , examining the one adolescent study among several for adults
ADAI Rating	Promising
Comment	Seeking Safety is well-supported with research evidence for adults with PTSD and substance abuse. We could find only one small RCT examining SSA. While results are encouraging, more studies are needed to substantiate the effectiveness of Seeking Safety for this population.

Strengths-Oriented Family Therapy (SOFT)	
Contact information	Program Developers: Douglas C. Smith, Ph.D., (217) 333-5308, smithdc@illinois.edu James A. Hall, Ph.D., (317) 274-8812, jah6@iu.edu
Website	None
Description of Intervention	SOFT combines a pre-treatment motivational family session, solution-focused family therapy, multifamily

	skills training groups, and targeted case management to comprise a distinct family-based intervention. SOFT has three unique features compared to other family treatments for adolescent substance abuse: (1) a pretreatment family motivational enhancement session called the Strengths-Oriented Referral for Teens (SORT) (Smith & Hall, 2007), (2) a foundation in solution-focused language and treatment techniques, and (3) a formal strengths and resources assessment in the early stages of treatment. Overall, the SOFT approach contains four main activities: (1) family-based assessment and motivational feedback (that is, SORT), (2) work with individual families that progresses through three stages, (3) multifamily groups, and (4) SOFT case management, as needed. During SOFT treatment, adolescents and their parents attended ten weekly multifamily groups and five conjoint family therapy sessions.
Manual	Contact the developers
Therapy format	Family, group
Therapy type	Social justice orientation
Setting	Outpatient clinic, community agency
Evaluations and Findings	<p>Study 1, Smith et al., 2006 - weak support for SOFT</p> <p>98 adolescents, aged 12 to 18 (71% male; 76% White), who were referred to adolescent outpatient treatment, and covered by either public or private insurance, were randomly assigned to receive either SOFT or The Seven Challenges (7C). Using data on past year symptoms, 1% were diagnosed with alcohol dependence, 12% with marijuana dependence, 12% with some AOD dependence, 22% with alcohol abuse, 37% with marijuana abuse, and 38% with some AOD abuse. Using lifetime data, 90% were diagnosed with substance abuse and 47% with substance dependence. Participants were assessed with the GAIN at baseline and 3 and 6 months.</p> <ul style="list-style-type: none"> • No significant differences were found between the two conditions • The percentages of abstinent participants in 7C and SOFT were 8% and 3% at baseline, 34% and 27% at 3 months, and 39% and 31% at 6 months, respectively. • The percentages of symptom free adolescents in 7C and SOFT were 33% and 26% at baseline, 50% and 60% at month 3, and 61% and 60% at month 6, respectively. • Clients in both treatments were significantly more likely to be abstainers or in full remission at the three and six month interviews than at baseline. • For 7C participants, the odds of continued use at month 3 and month 6 were reduced by 93% and 95% respectively, and the odds of continued substance-related problems at month 3 and month 6 were reduced by 52% and 69%, respectively. • For SOFT participants, the odds of continued use (SFS) at month 3 and month 6 were reduced by 94% and 95% respectively, and the odds of continued substance-related problems (SPS) at month 3 and month 6 were reduced by 76% and 76%, respectively. <p>Smith, D. C., Hall, J. A., Williams, J. K., An, H., & Gotman, N. (2006). Comparative efficacy of family and group treatment for adolescent</p>

	substance abuse. American Journal on Addictions, 15(sup1), 131-136.
Rating Lists	None
ADAI Rating	Promising
Comment	SOFT appears promising at this time; more data are needed to support the intervention, particularly in light of the methodological problems in Study 1. Generalizability of the findings is unclear as participants were required to have insurance, and it appears that the majority of the sample did not have a past year diagnosis of a substance use disorder; approximately 30% of the sample was symptom-free at baseline.

Structural Ecosystems Therapy (SET)	
Contact information	Program Developer: Program Developer: Michael Robbins (mrobbins@ori.org), Seth Schwartz, and José Szapocznik
Website	None
Description of Intervention	<p>Structural Ecosystems Therapy is a manualized family- and ecological-based intervention for adolescent drug abuse. Within-family components of SET are based on Brief Strategic Family Therapy: (a) joining with family members, (b) tracking and eliciting family interactions to assess family relationships, (c) reframing to create a context for behavior change to occur, and (d) restructuring maladaptive family relationships. The ecological components of SET borrow from the social contextual theories of Bronfenbrenner (1986) to include assessment and intervention into the adolescent's and family's relationships with the peer group, schools, and juvenile justice system: (a) joining with members of the ecology, (b) tracking ecological relationships, (c) reframing problems in the ecology, and (d) restructuring ecological relationships. SET is intended to be delivered during 12–16 BSFT-style family therapy sessions (e.g., sessions conducted with multiple family members) and 12 ecosystemic therapy sessions (e.g., sessions with family members and individuals from the family's social ecology).</p> <p>Robbins, M. S., Szapocznik, J., Dillon, F. R., Turner, C. W., Mitrani, V. B., & Feaster, D. J. (2008). The efficacy of structural ecosystems therapy with drug-abusing/dependent African American and Hispanic American adolescents. <i>Journal of Family Psychology</i>, 22(1), 51.</p>
Manual	Robbins, M. S., Schwartz, S., & Szapocznik, J. (2003). Structural ecosystems therapy with adolescents exhibiting disruptive behavior disorders. In J. Ancis (Ed.), <i>Culturally-Based Interventions: Alternative Approaches to Working with Diverse Populations and Culture-Bound Syndromes</i> (pp. 71–99). New York: Brunner-Routledge.
Therapy format	Family
Therapy type	Family
Setting	Outpatient clinic, community agency

Evaluations and Findings	<p>Study 1, Robbins et al., 2008 – weak support for SET</p> <p>190 African American or Hispanic/Latino adolescents (86% male; 0% White) with a DSM-IV diagnosis of substance abuse or dependence, who were living with at least one adult caregiver, were randomly assigned to receive either brief strategic family therapy (BSFT), Structural Ecosystems Therapy (SET, which was BSFT plus up to 12 ecological sessions), or a referral to community services (CS). Participants were assessed with the Timeline Followback and Adolescent Drug Abuse Diagnosis interview at baseline and 3, 6, 9, 12, and 18 months post-randomization.</p> <ul style="list-style-type: none"> • BSFT was no more effective than CS at reducing number of days drug use in the preceding 30 days. • SET was more effective than BSFT and CS at reducing number of days drug use in the preceding 30 days, but only among Hispanic/Latino adolescents. • Dose (number of sessions) did not moderate the effect of the interventions <p>Robbins, M. S., Szapocznik, J., Dillon, F. R., Turner, C. W., Mitrani, V. B., & Feaster, D. J. (2008). The efficacy of structural ecosystems therapy with drug-abusing/dependent African American and Hispanic American adolescents. <i>Journal of Family Psychology</i>, 22(1), 51.</p>
Rating Lists	None
ADAI Rating	Promising
Comment	SET was more effective than BSFT and CS, on only one dependent variable and only among Hispanic/Latino adolescents. This level of evidence is insufficient for a rating of research-based, but SET is appropriately considered a promising practice.

Teen Marijuana Check-Up (TMCU) – an adaptation of Motivational Enhancement Therapy	
Contact information	Program Developer: Denise Walker, PhD
Website	http://depts.washington.edu/iprg/substance%20abuse.html
Description of Intervention	<p>The Teen Marijuana Check-Up (TMCU) was developed as an alternative approach for adolescents to address concerns about marijuana use outside of formal treatment. The TMCU is a program that includes a specific advertisement and recruitment strategy as well as an MET intervention designed for delivery in the schools. Aimed at a voluntary, non-treatment-seeking population recruited from high schools, the program was advertised as an opportunity to “take stock” of marijuana use and was intended to facilitate a candid, in-depth evaluation of an individual’s use. The brevity of the MET and its low barriers to access encourage participation with minimal effort. In MET, ambivalence about marijuana use is viewed as normal, adolescents are not labeled as having a problem with marijuana, and adolescents are treated as experts and decision makers regarding their marijuana use. Thus, it is meant to appeal to those in earlier stages of change.</p> <p>Walker, D. D., Roffman, R. A., Stephens, R. S., Wakana, K., & Berghuis, J. (2006). Motivational enhancement therapy for adolescent marijuana users: A preliminary randomized controlled trial. <i>Journal of Consulting and Clinical Psychology</i>, 74(3), 628-632.</p>

Manual	Contact the developer
Therapy format	Individual
Therapy type	Motivational Enhancement
Setting	Schools
Evaluations and Findings	<p>Study 1, Walker et al., 2006 – no support for TMCU 97 adolescents who used marijuana on at least 9 of the last 30 days (48% male; 53% White) were randomly assigned to receive the TMCU either immediately or after a 3-month delay. Baseline and 3-month follow-up assessments, consisting of the Global Appraisal of Individual Needs, were administered by an audio-computer-assisted self-interviewing program.</p> <ul style="list-style-type: none"> Both groups significantly reduced marijuana use at the 3-month follow-up ($p < .001$); however, no between-group differences were observed. <p>Walker, D. D., Roffman, R. A., Stephens, R. S., Wakana, K., & Berghuis, J. (2006). Motivational enhancement therapy for adolescent marijuana users: A preliminary randomized controlled trial. <i>Journal of Consulting and Clinical Psychology, 74</i>(3), 628-632.</p> <p>Study 2, Walker et al., 2011 – support for TMCU 310 adolescents who used marijuana on at least 9 of the last 30 days (61% male; 66% White) were randomly assigned to receive the TMCU, an educational feedback control (EFC), or a no assessment delayed feedback control (DFC). At the conclusion of session two for EFC and MET, all participants were informed that additional sessions were available for those who wanted help in stopping their cannabis use. The four optional 50-min CBT sessions were delivered in an individual format. Baseline (all but the DFC group), 3-month, and 12-month follow-up assessments, consisting of the Global Appraisal of Individual Needs, were administered by an audio-computer-assisted self-interviewing program.</p> <ul style="list-style-type: none"> Participants in both the TMCU ($p < .001$) and EFC ($p < .05$) conditions reported significantly fewer days of cannabis use compared to DFC. However, the frequency of cannabis use did not differ significantly between the TMCU and EFC conditions ($p > .05$). At 3 months, abstinence rates were 4% (TMCU), 2% (EFC), and 1% (DFC). At 12 months, abstinence rates were 12% (TMCU) and 5% (EFC). At neither time point were there significant differences between groups. TMCU participants reported significantly fewer problems and abuse and dependence criteria relative to the DFC condition at 3 months ($ps < .05$). The EFC condition typically fell between the TMCU and DFC conditions on each measure and did not differ significantly from TMCU. Baseline cannabis use remained reduced at 12 months, but there was no significant difference by condition in the overall analysis <p>Walker, D. D., Stephens, R., Roffman, R., DeMarce, J., Lozano, B., Towe, S., & Berg, B. (2011). Randomized controlled trial of motivational enhancement therapy with nontreatment-seeking adolescent cannabis users: A further test of the teen marijuana check-up. <i>Psychology</i></p>

	of Addictive Behaviors, 25(3), 474-484.
Rating Lists	WSIPP = Evidence-based
ADAI Rating	Research-based
Comment	The TMCU is considered research-based. Study 1 did not show significant between group effects. However, findings from Study 2 demonstrate that TMCU was superior to a Delayed Feedback Control condition at 3 months. The TMCU did not demonstrate significantly superior results to an Education Feedback Control. It should be noted that the TMCU and EFC were supplemented with CBT, so it is unclear the extent to which effects may have been enhanced by CBT; however, there was little engagement with additional CBT sessions designed to augment the effect of the brief interventions. Development of the TMCU intervention is ongoing and a randomized controlled trial is currently underway in the state of Washington to evaluate the updated intervention.

The Seven Challenges (7C)	
Contact information	Program Developer: Robert Schwebel, Ph.D.
Website	http://sevenchallenges.com/
Description of Intervention	The Seven Challenges (7C) program is designed for adolescents with drug problems, to motivate a decision and commitment to change, and to support success in implementing the desired changes. The Program simultaneously helps young people address their drug problems as well as their co-occurring life skill deficits, situational problems, and psychological problems. The challenges provide a framework for helping youth think through their own decisions about their lives and their use of alcohol and other drugs. Counselors using The Seven Challenges program teach youth to identify and work on the issues most relevant to them. In sessions, as youth discuss the issues that matter most, counselors seamlessly integrate the challenges as part of the conversation. http://sevenchallenges.com/
Manual	Schwebel, R. (2004). <i>The Seven Challenges Manual</i> . Tucson, AZ: Viva Press. http://sevenchallenges.com/App_System/Lib/Documents/7C_Manual.pdf
Therapy format	Individual, group
Therapy type	Developmental, holistic
Setting	Community agency
Evaluations and Findings	Study 1, Smith et al., 2006 - weak support for 7C 98 adolescents, aged 12 to 18 (71% male; 76% White), who were referred to adolescent outpatient treatment,

	<p>and covered by either public or private insurance, were randomly assigned to receive either Strengths-oriented Family Therapy (SOFT) or 7C. Using data on past year symptoms, 1% were diagnosed with alcohol dependence, 12% with marijuana dependence, 12% with some AOD dependence, 22% with alcohol abuse, 37% with marijuana abuse, and 38% with some AOD abuse. Using lifetime data, 90% were diagnosed with substance abuse and 47% with substance dependence. Participants were assessed with the GAIN at baseline and 3 and 6 months.</p> <ul style="list-style-type: none"> • No significant differences were found between the two conditions • The percentages of abstinent participants in 7C and SOFT were 8% and 3% at baseline, 34% and 27% at 3 months, and 39% and 31% at 6 months, respectively. • The percentages of symptom free adolescents in 7C and SOFT were 33% and 26% at baseline, 50% and 60% at month 3, and 61% and 60% at month 6, respectively. • Clients in both treatments were significantly more likely to be abstainers or in full remission at the three and six month interviews than at baseline. • For 7C participants, the odds of continued use at month 3 and month 6 were reduced by 93% and 95% respectively, and the odds of continued substance-related problems at month 3 and month 6 were reduced by 52% and 69%, respectively. • For SOFT participants, the odds of continued use (SFS) at month 3 and month 6 were reduced by 94% and 95% respectively, and the odds of continued substance-related problems (SPS) at month 3 and month 6 were reduced by 76% and 76%, respectively. <p>Smith, D. C., Hall, J. A., Williams, J. K., An, H., & Gotman, N. (2006). Comparative efficacy of family and group treatment for adolescent substance abuse. <i>American Journal on Addictions</i>, 15(sup1), 131-136.</p>
Rating Lists	<p>CEBC: 3 = Promising research evidence NREPP: Rated 2.8 on substance use and related problems, 2.3 on symptoms of mental health problems.</p>
ADAI Rating	Promising
Comment	<p>7C appears promising at this time; more data are needed to support the intervention, particularly in light of the methodological problems in Study 1. Generalizability of the findings is unclear as participants were required to have insurance, and it appears that the majority of the sample did not have a past year diagnosis of a substance use disorder; approximately 30% of the sample was symptom-free at baseline.</p>

Rating Lists

- Blueprints for Healthy Youth Development. (Ratings = Model (highest) or Promising) <http://www.blueprintsprograms.com/allPrograms.php>
- CEBC: California Evidence-Based Clearinghouse. (Ratings from 1 to 5, with 1= Well-supported by research evidence; 2= Supported by research evidence; 3= Promising research evidence, etc.) <http://www.cebc4cw.org/topic/substance-abuse-treatment-adolescent/>
- NREPP: SAMHSA's National Registry of Evidence-based Programs and Practices (Ratings scale 0.0-4.0) <http://www.nrepp.samhsa.gov/>
- OJJDP: Office of Juvenile Justice and Delinquency Prevention's Model Programs Guide (Ratings: Effective, Promising, No Effects) <http://www.ojjdp.gov/mpg/Topic/Details/29>
- WSIPP: Washington State Institute for Public Policy. Preventing and Treating Youth Marijuana Use: An Updated Review of the Evidence, October 2014. (Ratings levels = Evidence-based; Research-based; Promising) http://www.wsipp.wa.gov/ReportFile/1571/Wsipp_Preventing-and-Treating-Youth-Marijuana-Use-An-Updated-Review-of-the-Evidence_Report.pdf

Literature Reviews

- Baldwin, S. A., Christian, S., Berkeljon, A., & Shadish, W. R. (2012). The effects of family therapies for adolescent delinquency and substance abuse: A meta-analysis. *Journal of Marital and Family Therapy*, 38(1), 281-304.
- Barnett, E., Sussman, S., Smith, C., Rohrbach, L. A., & Spruijt-Metz, D. (2012). Motivational Interviewing for adolescent substance use: A review of the literature. *Addictive Behaviors*, 37(12), 1325-1334.
- Becker, S. J., & Curry, J. F. (2008). Outpatient interventions for adolescent substance abuse: A quality of evidence review. *Journal of Consulting and Clinical Psychology*, 76(4), 531.
- Bender, K., Tripodi, S. J., Sarteschi, C., & Vaughn, M. G. (2011). A meta-analysis of interventions to reduce adolescent cannabis use. *Research on Social Work Practice*, 21(2), 153-164.
- Budney, A. J., Roffman, R., Stephens, R. S., & Walker, D. (2007). Marijuana dependence and its treatment. *Addiction Science & Clinical Practice*, 4(1), 4.
- Deas, D., & Thomas, S. E. (2001). An overview of controlled studies of adolescent substance abuse treatment. *The American Journal on Addictions*, 10(2), 178-189.
- Hogue, A., Henderson, C. E., Ozechowski, T. J., & Robbins, M. S. (2014). Evidence base on outpatient behavioral treatments for adolescent substance use: Updates and recommendations 2007–2013. *Journal of Clinical Child & Adolescent Psychology*, 43(5), 695-720.
- Hogue, A., & Liddle, H. A. (2009). Family-based treatment for adolescent substance abuse: controlled trials and new horizons in services research. *Journal of Family Therapy*, 31(2), 126-154.
- Jensen, C. D., Cushing, C. C., Aylward, B. S., Craig, J. T., Sorell, D. M., & Steele, R. G. (2011). Effectiveness of motivational interviewing interventions for adolescent substance use behavior change: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, 79(4), 433.
- Kaminer, Y. (2005). Challenges and opportunities of group therapy for adolescent substance abuse: A critical review. *Addictive Behaviors*, 30(9), 1765-1774.
- Meyers, R. J., Roozen, H. G., & Smith, J. E. (2011). The community reinforcement approach: An update of the evidence. *Alcohol Research & Health*, 33(4), 380.
- Ozechowski, T. J., & Liddle, H. A. (2000). Family-based therapy for adolescent drug abuse: Knowns and unknowns. *Clinical Child and Family Psychology Review*, 3(4), 269-290.
- Roozen, H. G., De Waart, R., & Van Der Kroft, P. (2010). Community reinforcement and family training: an effective option to engage treatment-resistant substance-abusing individuals in treatment. *Addiction*, 105(10), 1729-1738.
- Tanner-Smith, E. E., Wilson, S. J., & Lipsey, M. W. (2013). The comparative effectiveness of outpatient treatment for adolescent substance abuse: A meta-analysis. *Journal of Substance Abuse Treatment*, 44(2), 145-158.

- Tevyaw, T. O. L., & Monti, P. M. (2004). Motivational enhancement and other brief interventions for adolescent substance abuse: foundations, applications and evaluations. *Addiction*, 99(s2), 63-75.
- Tripodi, S. J., Bender, K., Litschge, C., & Vaughn, M. G. (2010). Interventions for reducing adolescent alcohol abuse: a meta-analytic review. *Archives of Pediatrics & Adolescent Medicine*, 164(1), 85-91.
- Vaughn, M. G., & Howard, M. O. (2004). Adolescent substance abuse treatment: A synthesis of controlled evaluations. *Research on Social Work Practice*, 14(5), 325-335.
- Waldron, H. B., & Turner, C. W. (2008). Evidence-based psychosocial treatments for adolescent substance abuse. *Journal of Clinical Child & Adolescent Psychology*, 37(1), 238-261.

Excluded Treatments:

- Phone-based treatments, e.g. Cannabis Information and Helpline in Gates et al. (2012)
- Web-, internet-, or smartphone-based treatments, e.g. "Quit the Shit" in Tossman et al. (2011)
- Treatments primarily delivered on college campuses, e.g. BASICS in Dimeff et al. (1999)
- Treatments primarily delivered in correctional settings, e.g. drug court

Future Updates

This review is an ongoing project of the Alcohol & Drug Abuse Institute at the University of Washington. The inventory will be updated at intervals to add new interventions and to update the information and ratings of treatments already listed.

Related Brief Summary

Stoner S. Treating Youth Substance Use: Evidence-Based Practices and Their Clinical Significance. Alcohol & Drug Abuse Institute, University of Washington, March 2016. <http://adai.uw.edu/pubs/pdf/2016youthsubstusebrief.pdf>

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