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Brief Family Based Intervention for Substance Abusing Adolescents

Lynn Hernandez, PhD, Ana Maria Rodriguez, MS, and Anthony Spirito, PhD, ABPP Center for Alcohol and Addiction Studies, Department of Psychiatry and Human Behavior, Brown School of Public Health, Alpert Medical School of Brown University

Synopsis

Research has consistently shown that a lack of parental involvement in the activities of their children predicts initiation and escalation of substance use. Parental monitoring, as well as youth disclosure about their whereabouts, parent child communication, positive parenting and family management strategies, e.g., consistent limit setting, and parental communication about and disapproval of substance use, have all been shown to protect against adolescent substance abuse and substance problems. Given the empirical evidence, family and parenting approaches to preventing and intervening on adolescent substance misuse have received support in the literature. This article discusses the theoretical foundations as well as the application of the Family Checkup, a brief family-based intervention for adolescent substance use.

Keywords

Adolescence; Substance Use; Parenting; Family Interventions

This article describes a brief intervention designed to improve parenting strategies because of their important role in the onset and escalation of adolescent substance use. 1-3 Alcohol and other drug use are typically initiated during adolescence and escalate over this developmental period. This pattern is so common that some describe substance use disorders (SUD) as "developmental disorders." ⁴ Nationally representative data demonstrate that approximately 27.8% of adolescents have experimented with alcohol and 16.4% have experimented with marijuana by the time they reach the 8th grade and that these rates increase to 68.2% and 45.5%, respectively by the time adolescents reach the twelfth grade.⁵ Data on levels of problematic drinking, from being drunk to binge drinking also demonstrate important age-related patterns. For example, 12.2% of eighth grade adolescents reported ever being drunk and 5.1% reported binge drinking (defined as five or more drinks on one

Corresponding: Lynn Hernandez, Brown University School of Public Health, Center for Alcohol and Addiction Studies, Department of Behavioral and Social Sciences, Box G-S121-5, Providence, RI 02912, Lynn_Hernandez@Brown.edu.

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occasion) in the past two weeks. By the time these adolescents reach the twelfth grade, their rates of ever being drunk increase to 52.3% and their rates of binge drinking in the past two weeks increase to 23.7%.⁵

Despite these data demonstrating that experimentation with alcohol and marijuana during adolescence is a developmentally normative behavior, research has demonstrated that the earlier a person initiates alcohol and other drug use, the greater their risk for developing a SUD later in life. Underage drinking and early drug use are also associated with a wide range of problems including co-occurring mental health problems (e.g., ADHD, conduct disorder, depression, anxiety), academic problems including school drop-out, delinquent behaviors, and injuries and motor vehicle crashes.⁷ For example, in the US alone, about onethird of 15 to 20 year olds who died in motor vehicle crashes in 2011 had consumed alcohol. 8 Further, as mentioned, use of alcohol and drugs is also linked to sexual risk taking, including unplanned sexual intercourse, sex without a condom, sex with someone whose sexually transmitted infection (STI) status is unknown, and sex with multiple partners.⁹ Studies have demonstrated that alcohol use doubles the risk of adolescents engaging in HIV risk behaviors, and that the association between alcohol use and unprotected vaginal intercourse is almost four times higher among alcohol users than non-users. 10 As for marijuana users, they are almost five times more likely to have unprotected vaginal intercourse than adolescents who do not use marijuana. ¹⁰ The risk of sexual victimization is also higher on days when adolescents drink than on days when they do not drink. 11 and this risk increases with adolescents' level of blood alcohol concentration. 12

Health problems specific to marijuana use include aggravation of asthma, bronchitis, and emphysema. Chronic use may cause functional alterations in the respiratory system and produce morphological changes in the airways that precede lung and bronchial cancer. ¹³ Further, long-term marijuana smokers show cognitive impairment, ¹⁴ and early onset of marijuana use (before age 16) has been associated with chronic deficit in attention skills. ¹⁵ For example, in the Dunedin study where 1,037 individuals between the ages of 7 and 13 who had not initiated marijuana use were administered cognitive tests and then followed into middle adulthood, ¹⁶ those who met criteria for cannabis use disorder at three or more of the follow-up assessments as adolescents had a six point lower full scale IQ score than those who met diagnostic criteria for a cannabis used disorder as adults. These findings suggest that the onset of heavy marijuana use in adolescence, rather than adulthood, can result in long-term cognitive effects. Findings such as these not only indicate that adolescent substance use is a public health concern, but they also underscore the importance of intervening on substance abuse during adolescence.

Diagnosing Substance-related Disorders

There are numerous substances for which a diagnosis of a SUD can be reached, including alcohol, cannabis, hallucinogens, inhalants, opioids, sedatives/hypnotics/anxiolytics, stimulants, and tobacco. The publication of the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition¹⁷ was notable for its elimination of substance abuse and dependence as distinct disorders. In this 5th edition, a single diagnosis of substance use disorder may be obtained if an individual exhibits at least two symptoms across domains

within a year period. The severity of the disorder, i.e., mild (e.g., 2–3 symptoms are present), moderate (e.g., 4–5 symptoms are present), or severe (e.g., 6 or more symptoms are present) is then indicated. These symptoms can span one or more domains. The first domain is comprised of loss of control behaviors, such as frequent over use of the substance. Social difficulties resulting from substance use is the second domain and includes persistent interpersonal problems caused by or exacerbated by the substance. Risky behavior, such as continuing to use a substance despite recurrent physical or psychological problems, is the third domain. The final domain refers to physiologic changes that result from use of a substance, such as the need to use greater amounts to achieve the same effects as once experienced, tolerance, craving, and withdrawal. When assessing for symptoms within this domain however, clinicians should remain cognizant that physiologic symptoms, such as tolerance, may be developmentally normative for adolescents and young adults as they move from experimental use to regular use, and that symptoms such as withdrawal and craving are less well understood in adolescence and further clarification as to how they manifest during this developmental stage is needed. ¹⁸

Family Factors Affecting Adolescent Substance Use

There are a number of risk and protective factors that influence alcohol and other drug use behaviors among adolescents. Contextual factors reflect the social ecology of human development and focus on the interconnections among various sources of risk and protection in adolescents' lives. Within this theoretical framework, the family is the most influential microsystem of adolescent development. Risk and protective processes related to alcohol and other drug use within this microsystem include parent-adolescent communication 2, monitoring and supervision, parental involvement in adolescents' activities and peer relationships, 22 general family management strategies, and parent disapproval and modeling. 3

When it comes to family management and its effect on adolescent development, parental monitoring and knowledge are perhaps the two variables with the most empirical evidence. ²⁴ Parental monitoring can be defined as "a set of correlated parenting behaviors involving attention to and tracking of the adolescent's whereabouts, activities, and adaptations." ²⁵ This definition implies an intentional aspect whereby parents actively seek information regarding their adolescent's behavior. ²⁴ Parental knowledge represents the result of monitoring behaviors and other information acquisition methods like child disclosure. ²⁶ Research has consistently shown that a low level of parental monitoring is related to early use of alcohol and drugs. ²¹

Whereas parental monitoring has been identified in the literature as a protective factor for adolescent substance use, affiliation with substance using peers is a risk factor.²⁷ Early studies examining the effects of parental monitoring on adolescent substance use after controlling for peer use have produced divergent results. For instance, in studies where peer-related variables and family factors were both evaluated, some research has shown that peer associations have a more profound impact on substance use than parent-adolescent relationships.²⁸ Others, in contrast, have found that parents exert more influence over adolescent substance use initiation.²⁷ Research has also demonstrated that these two

contextual variables affect each other and likely interact to predict adolescent use. ²⁹ As a result, more accepted models of risk now examine parental monitoring as mediators and moderators of adolescent substance use. Such models demonstrate that inadequate parental monitoring increases the risk of adolescent substance use because it allows the adolescent to associate with deviant peers, ³⁰ whereas models of moderation demonstrate that a peer's influence on an adolescent's substance use behavior varies according to the level of parental monitoring the adolescent experiences. ³¹ One study by Nash, McQueen, and Bray ³² found that positive parenting was linked with adolescents' strong sense of self-efficacy in refusing peer alcohol offers, thus demonstrating the mechanisms by which parental monitoring can protect adolescents from the negative effects of deviant peer influences.

Parent alcoholism and a family history of alcoholism has been suggested as leading to increased adolescent alcohol use through negative pathways, such as decreased parental monitoring of alcohol use.^{33, 34} A study with 4,731 teens found parental alcohol use to be positively associated with teens' substance-related behaviors, and that these associations were mediated by teens' perceptions of parenting practices, especially among the younger teens. Furthermore, perceived parental monitoring and discipline had unique mediating effects on adolescents' drinking.

Positive parent-teen affective quality including parent-teen communication, also have important protective influences on teen substance use.³⁵ However, it is not just positive communication which deters adolescents from substance use but also the content, style, and timing of communication about use.³⁶ For instance, Cohen, Richardson, and LaBree³⁷ found that children's risk for tobacco onset and alcohol use in the past month was associated with the amount of time children reported their parents spent with them as well as the frequency of communication. Ackard et al.³⁸ found that both male and female adolescents who perceived difficulty in talking to their parents about substance use and related problems were at increased risk for substance use. Consistent with these findings, enhancing the frequency and quality of parent-child communication is a common target in substance use interventions for adolescents.³⁹

Strong parental norms against teenage drinking and communication of parental disapproval of drinking have also been shown to reduce the risk of initiation in early adolescence⁴⁰ and have been linked to less peer influence to use alcohol, greater self-efficacy to refuse alcohol, and lower frequency of alcohol use behavior.³² Similarly, national data demonstrate that adolescents who believe that their parents would strongly disapprove of them using substances are significantly less likely to use that substance than adolescents whose parents only somewhat disapproved.⁴¹ Further, communication of alcohol-specific rules in a clear and strict manner is associated with the postponement of drinking in both younger and older adolescents.⁴² Yet, other studies have shown that younger adolescents are more strongly affected by the attitudes of their parents,⁴³ suggesting the need to intervene early on.

In summary, research has consistently shown that a lack of parental involvement in the activities of their children predicts initiation of substance use. Parental monitoring, as well as youth disclosure about their whereabouts and peer affiliations, ²⁶ is related to lower rates of substance use. ⁴⁴ and regular parent-child communication about substance use as well as

parents' disapproval of substance use reduces the risk of early onset substance use. Taken together, this evidence suggests that affecting family processes is critically important in reducing substance misuse during adolescence. Therefore, programs that promote parenting behavior management skills, strengthen parent-child relationships, and work directly with parents by strengthening their sense of responsibility and control over their adolescents' lives can be efficacious at reducing risk for substance use in early adolescence.⁴⁵

Family Based-Interventions

Reviews of prevention programs indicate that active parent participation is a key element in effective substance use programming with children and adolescents, ⁴⁶ especially when considering longer-term (>3 years) outcomes. ⁴⁷ Based on a review of the literature on drug and alcohol prevention programs, for example, Cuijpers ⁴⁶ concluded that working solely with the child is not likely to result in strong, positive changes in behavior, although it may affect knowledge. In another review, Cowan and Cowan Provide further evidence that parents have effects on youth in the family, at school, and within their peer groups, and that family-focused interventions can affect positive changes on child development. Lochman and van den Steenhoven ⁴⁹ also report multiple positive effects for parent training and family skill building prevention programs, including decreased child problem behaviors, increased prosocial behaviors, decreased substance use, and improved family relations and parenting practices.

Given the empirical evidence reviewed thus far, it is no wonder that family and parenting approaches to prevention and intervention of adolescent substance misuse have received widespread support in the literature. In one review, family therapy was compared to family education, individual tracking through schools/courts, and individual and group therapy. Family therapy resulted in greater reductions in substance use in 7 of 8 studies. Further, after reviewing family-based interventions for adolescent substance use, Kumpfer, Alvarado, Whiteside family-based interventions for adolescent substance use, Kumpfer, Alvarado, Whiteside family-based interventions have average effect sizes to 9 times larger than adolescent-only programs. A more recent review by Becker and Curry found ecological family therapy (i.e., multisystemic therapy, multi-dimensional family therapy, family systems network, ecologically based family therapy) to be the most evaluated therapy of adolescent outpatient substance abuse treatment. Of the seven studies on ecological family therapy, three demonstrated superior outcomes to other active treatment conditions. Three other studies found ecological family therapy models to have comparable outcomes to usual care in the community as well as cognitive-behavioral therapy (CBT) and motivational enhancement therapy (MET).

Ecological family therapy approaches attempt to achieve their outcomes by involving parents as essential participants in treatment. The most common ecological family therapy approaches include brief strategic family therapy,⁵³ family behavior therapy,⁵⁴ functional family therapy,⁵⁵ multidimensional family therapy (MDFT⁵⁶), and multisystemic therapy (MST⁵⁷). Ecological family therapy attempts to restructure family interaction patterns that may be increasing risk for or sustaining an adolescent's substance use behaviors, while also applying behavioral approaches of operant and social learning theories within the family context to promote pro-social behaviors and reduce substance abuse.⁵⁰ Often times, these

approaches extend beyond the family and target all aspects of an adolescents' social context. For example, in MDFT, individuals and systems that intersect to exert a meaningful influence in the adolescent's life are included in treatment (see "Multisystemic Treatment for Externalizing Disorders" by Zajac, Swenson and Randall also in this issue for more on MDFT). ⁵⁶

The majority of treatment studies published have been conducted with adolescents with substance abuse or dependence diagnoses rather than with adolescents in the earlier stages of substance use. Therefore, engaging families in programs targeting substance use remains a significant obstacle to the implementation of successful prevention and intervention programs. Parent interventions usually suffer from low attendance and low retention rates. Low attendance rates can be the result of busy work schedules, extracurricular activity schedules for youth, and can be related to lack of motivation. For families whose teens are in the earlier stages of substance use and are perhaps not seeking intensive treatment programs, brief interventions may be the most appropriate and most engaging.

Brief interventions can be described as targeted, time-limited, and low threshold services that aim to reduce substance use and its associated risks, as well as prevent progression to more severe levels of use. ⁶⁰ With the exception of one intervention, the Family Check-Up (FCU), very few family-based interventions for adolescent substance use meet these criteria. The FCU is a brief assessment and feedback intervention, based on motivational interviewing (MI) principles, that is designed to enhance parental recognition of child risk behaviors and motivation for reducing these problem behaviors and associated risk factors. Metzler et al. ⁶¹ reviewed 11 best practice lists and identified 9 evidence-based adolescent programs that focused on prevention or treatment of substance use. Five were treatment programs (e.g., Strengthening Families ⁶²), three were universal prevention programs (e.g., Strengthening Families ⁶³), but only one was an indicated prevention program, the Adolescent Transitions Program (ATP⁶⁴). The FCU is the primary intervention component of the ATP.

The Family Check-Up

The FCU includes techniques endorsed by researchers in the field of family-based preventive interventions⁶⁵ including: focusing on protective factors in the family, i.e. parental strengths and competencies; presenting normative developmental guidelines; intervening in both parenting practices and family process characteristics; utilizing skills-oriented rather than educational interventions; and attending to the psychosocial issues of the parents. The FCU intervention targets specific family risk and protective factors linked to substance use, including parental supervision and monitoring²⁵ and parent-child relationship quality.⁶⁶ By providing individualized feedback, and using MI techniques, the FCU is designed to motivate families to take action to change current practices when necessary.

There are several studies supporting the efficacy of the FCU (see Table 1 for summary). In an initial efficacy study, Dishion, Nelson, and Kavanagh⁶⁷ found that the FCU reduced the risk for future substance use (measured in the 9th grade) among 6th grade students (N=71)

from three multiethnic urban middle schools. Further, parents assigned to the FCU maintained monitoring practices in the first year of high school, and analyses showed that the prevention effect of the FCU was mediated by changes in parental monitoring. By the 3-year follow-up (first year of high school for adolescents), while control group families reduced their monitoring practices, intervention families maintained parental monitoring of youth.⁶⁷ These findings point to the prevention effect of the FCU on substance use as mediated by parental monitoring. Thus, conducting MI with parents may indirectly influence behavioral changes among adolescent offspring by improving parenting practices.

The FCU has also been used to specifically address adolescent alcohol misuse.⁶⁸ In one study, families of adolescents (ages 13–17) who were treated in an urban hospital Emergency Department for an alcohol-related event were randomized to receive either an individual MI with the teen only or the individual MI plus the FCU. Results demonstrated reductions in quantity of drinking at 3, 6, and 12 months follow-up, with the strongest effects at 3 and 6 months. The FCU in combination with the MI, however, was found to be superior to individual MI alone in reducing the frequency of high-volume drinking at 6 months following the intervention. This study demonstrated the added benefit of including a parent-based MI in reducing adolescents' drinking.

Conducting a Family Check-up Session

Dishion and Kavanagh⁶⁴ developed the FCU to be conducted with parents of at-risk youth. The FCU, as adapted by Spirito et al.⁶⁸ to address adolescent substance use, is a two-session intervention composed of the following: (1) an initial intake interview to identify strengths and challenges and engage the family, as well as a videotaped observational task of family interactional style, and (2) a parent feedback session that uses an MI style to encourage maintenance of current positive parenting practices and changes in parenting problems. The goal of the intervention is to reduce problem behaviors among youth and to increase parental motivation toward constructive parenting. The FCU begins with self-report assessments and a videotaped Family Assessment Task (FAsTask⁶⁹), adapted by Dishion and Kavanagh.⁶⁴

Family Assessment Task (FAsTask)

The FAsTask is used to assess parent-teen interactions and provide additional assessment information for feedback in the FCU. A FAsTask specifically designed for substance using teens is as follows:

3 minutes	Parents and teen plan an activity (relationship quality)		
5 minutes	Parents lead a discussion about a teen behavior they would like to increase and how they would encourage the process (encouraging growth)		
5 minutes	Teen leads a discussion about a time without supervision and parents seek additional information (monitoring)		
5 minutes	Parents lead a discussion on setting limits over the previous month (limit setting)		
5 minutes	Entire family discusses a "hot" family problem (problem solving)		
5 minutes	Parents lead a discussion on the family beliefs about alcohol, marijuana, or other drug use (alcohol and drug-use norms)		

3 minutes Parents recognize a positive attribute of the teen (positive recognition)

The authors have adapted a structured clinical codebook developed by the creators of the FCU for use with substance using adolescents which includes coding procedures to be completed by two independent raters, one of which is the treatment provider. "Macro" clinical scores are calculated and coded as an area of "strength," "needs improvement," or "challenge," and provided as feedback during the FCU session. Macro scores include feedback on positive parent-teen relationships, monitoring, limit setting, problem solving, and alcohol and drug use norms. These data, along with parent self-report measures on monitoring and supervision, parent-child communication, prosocial and deviant peer affiliations, and other measures of limit setting and house rules, are used to generate the individualized feedback report for use in the parent feedback session described next.

The Family Check-Up Session

The FCU session is designed to improve both the consistency and quality of communication of parental expectations, supervision, limit setting and monitoring based on a strong underlying platform of parent-teen communication. There are four specific phases of the feedback session in the FCU: (1) *Self-assessment*: Parents are asked what they learned about their family from participating in the FAsTask assessment. (2) *Support and clarification*: The counselor assesses level of understanding and clarifies issues within the family. (3) *Feedback*: This section covers personalized feedback on three specific areas of family functioning: expectations regarding substance use, monitoring, and parent/teen communication. (4) *Parenting Plan*: The session concludes with a discussion of the teen's strengths and the importance of praising good behavior. Throughout the session, the counselor works with the parent to develop a brief, written Action Plan about communication and monitoring.

Parent motivation for change, change options and specific steps for making positive changes in parenting are discussed, including barriers to change and foreseeable benefits of change to parents. Positive aspects of parenting are emphasized to instill confidence and to encourage open communication. Tips on "talking to your teen without it being a turn-off", which include the use of "I-messages" and active listening, are reviewed. Further, examples of common parenting situations (e.g., obeying curfews) are used to discuss key parenting practices and the importance of generating plans to deal with these situations. Information on how to monitor teens, especially with respect to substance use is presented using the 5 W's worksheet (Who, What, Where, When and Why). Peers and siblings are discussed as potential negative influences on teen substance use that need to be addressed when considering parent monitoring strategies.

Case example

Below we present a snapshot of the FCU involving a 17 year old girl referred by Truancy Court for skipping school and smoking marijuana. In this example, the therapist discusses the importance of setting clear limits and being consistent with consequences.

T: I put limit setting between a strength and challenge because in the video you said you have been nagging Emily about hanging out with friends who smoke but you didn't do anything about it. Studies have shown that limit setting and consequences are really important in lowering teen substance use. Does limit setting seem to be a challenge for you?

- P: She is not very social with her peers so she is home all the time and I want her to go out. But there is one girl that I don't want her hanging around with because that is who she got in trouble with.
- T: I don't know if you remember her comment that she never knows if it is okay for her to be out with certain friends or when she needs to be in by.
- P: I tell her when she needs to be in. I could talk to her till I am blue in the face. I think some of that is making excuses. And it is mainly that one girl but I also don't want her to stay inside all the time.
- T: So you have mixed feelings about this. But I wonder if there is any consequence for not obeying a rule.
- P: That is where I fall short because it seems important but not that important.
- T: So she knows if she doesn't obey your rule, nothing will happen.
- P: I guess I just don't know how to punish her at her age.
- T: The reason I bring it up is because on the tape it seems like there was some conflict over that. We know that a parenting style of warmth, democracy, and control seems best with respect to limiting adolescents' behavior problems.

Additional considerations

The Family Check-up is conducive to addressing the most common issues that therapists encounter whenever working with parents regarding adolescent substance use. First, the FCU's nonjudgmental approach helps overcome resistance that may be encountered from parents who either do not feel that monitoring and limit setting is necessary with teens or that substance use is not a problem for their teen. Second, given that substance use varies as teen's progress through adolescence, recommendations to parents must be sensitive to these developmental periods. For instance, as adolescents seek greater autonomy from their parents, therapists can help parents develop monitoring and supervision strategies that are congruent with their adolescent's developmental stage (e.g., monitoring the adolescent rides versus the adolescent driving). Similarly, the video assessment provides an opportunity for parents to hear if their adolescents' have positive cognitions regarding alcohol and drugs, which tend to increase as adolescents grow older. In addition to supporting plans for parents to address these positive expectancies through their family management skills, therapists may also consider the benefits of addressing intrapersonal factors (i.e., attitudes, expectancies, social norms) at the adolescent individual level. In fact, as evidenced by Spirito et al. ⁶⁸, the FCU can be easily delivered in conjunction with an adolescent individual intervention.

Further, although the FCU may warrant tailoring to be congruent with a family's cultural background, its emphasis on parenting and family may be particularly useful for individuals from cultures where family plays a central role. For instance, for Hispanics, for whom familismo is an integral part of their culture, the FCU may be a particularly relevant approach to dealing with adolescent substance use. The FCU supports parental authority and choice, which is consistent with the structure of Hispanic families and which can enhance family adjustment. The FCU's focus on improving parenting self-efficacy may also be particularly useful for immigrant families, where parents may feel they have less control over the lives of their teenagers since arriving in the U.S. Finally, given the FCU's self-guided approach, it can be easily adapted to include values, customs, child-rearing traditions, expectancies for child and parent behavior, distinctive stressors and resources associated with different cultural groups.

Conclusion

The FCU is a brief family based preventive intervention that shows promise for bolstering the key parenting strategies necessary to prevent the onset and escalation of substance misuse in adolescence. Nonetheless, the FCU may be necessary, but not sufficient, to forestall adolescent substance use problems. Other family interventions, such as MDFT and FFT, may be necessary to build upon the work begun in the FCU in cases where substance abuse is more severe. Individual adolescent interventions may also be necessary in these cases.

Acronyms

SUD substance use disorders

STI sexually transmitted infection

CBT cognitive-behavioral therapy

MET motivational enhancement therapy

MDFT multidimensional family therapy

MST multisystemic therapy

FCU Family check-up

MI motivational interviewing

ATP Adolescent Transitions Program

FAsTask Family Assessment Task

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Key Points

- Parenting plays a key role in an adolescent's use of substances.
- Parental monitoring, consistent limit setting, and parent child communication about and disapproval of substance use are key strategies to protect against adolescent substance misuse and problems.
- Brief parent-focused interventions which support use of these parenting strategies can play an important role in the prevention of adolescent substance use problems.
- The Family Check-up is an example of such a brief intervention.

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Table 1

Randomized Family Check-Up Trials for Adolescent Substance Use

Findings	Both conditions reported reductions in substance use at 3 and 6 month follow up. Participants in the IMI+FCU conditions reported a larger reduction in high volume drinking days at 6-month follow-up compared to IMI only.	FCU led to lower levels of substance use and antisocial behaviors over time compared to treatment as usual.	Adolescents whose parents completed the FCU exhibited less growth in alcohol, tobacco, and marijuana use and problem behavior from ages 11 to 17 and lower risk for substance use diagnoses and police arrest records by age 18.	Parental monitoring mediated substance use among high-risk adolescents. Parents in the comparison condition reduced their supervision and monitoring between 7th and 9th grade, increasing adolescent substance use over time. Parents completing the FCU reduced supervision and monitoring between 7th and 8th reduced supervision and monitoring between 7th and 8th adolescent substance use by 9th grade.
Treatment and Control Groups	IMI+FCU IMI	FCU Regular school services	6th graders assigned to family-centered intervention and offered a multilevel intervention that includes: 1 Universal classroom-based intervention 2 FCU (offered to high risk families identified by teachers) 3 Family management treatment	FCU Family Centered Intervention
Z	125	593	866	71
Sample	Adolescents aged 13 to 17 years who tested positive for alcohol	6 th grade high risk adolescents and their families	Adolescents aged 11 to 17 years and their families	6 th and 7 th grade high risk adolescents and their families
Referral Source/Recruitment Site	Emergency Department	Middle school	Middle schools	Public middle school. Referred by teachers
Author	Spirito et al. ⁶⁸	Stormshak et al. ⁷⁰	Connell et al. ⁷¹	Dishion et al. ⁶⁴