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Can Parents Provide Brief Intervention Services to Their Drug-Abusing Teenager?

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Abstract

The importance of parents as "interventionists" is supported by reviews of the treatment literature (e.g., Smit, Verdurmen, Monshouwer, & Smit, 2008; Winters, Botzet, Fahnhorst, & Koskey, 2009) as well as the emerging science that home-based initiatives by parents can contribute to desired health changes in adolescents (Fearnow, Chassin, Presson, & Sherman, 1998; Jackson & Dickinson, 2006). Parental influences on an adolescent can include reducing initiation, as well as altering its maintenance if it has started. This paper describes a project aimed helping parents to deal with a teenager who has already started to use alcohol or other drugs. *Home Base* is a home-based, parent-led program aimed at reversing the trajectory of drug use in an already drug-using adolescent. The program's content is organized around motivational enhancement and cognitive behavioral techniques. The ongoing study will also be discussed.

Keywords

intervention; parenting; adolescent drug abuse

Background

Parents who either ignore or respond minimally in the face of substance use by their teenager can inadvertently reinforce the perception that substance use is normative and that there are no risks of continued use. Yet parents who establish themselves as an active "behavior change interventionist" can stave off the negative trajectory of continued substance use by their teenager, and may set the stage to assist their child for years to come as the child ages into young adulthood. This paper discusses the background and planned research design of perhaps the first controlled study to explore the efficacy of a home-based, parent-led program aimed at reversing the trajectory of drug use in an already drug-using adolescent. We first summarize the two complimentary literatures that provide the foundation for the program (named *Home Base*) – brief interventions and parents as interventionists – and discuss their relevance to the research project.

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Brief interventions

Background—Intervening with teenagers who have started to use drugs and have *not* escalated to the point of dependence has emerged as a growing area of interest in research and clinical services. Referred to as a brief intervention (BI), this approach typically involves between 1 to 4 sessions and consists of motivational enhancement techniques (Tait & Hulse, 2003) and cognitive behavioral strategies (e.g., Winters, Fahnhorst, Botzet, Lee, & Lalone, 2012). BIs have been employed in various settings, including schools, medical clinics, homeless shelters, and juvenile detention facilities. The goals of a BI will vary, based on the adolescent's situation (Levy, Winters & Knight, 2011). For those who have never used drugs, the program seeks to either prevent or delay initiation of drug use. A BI for adolescents who have initiated drug use but who have not developed substance dependence, the goals are to increase quit rates and to reduce acute risks associated with use.

There are several conceptual reasons why BIs may be highly relevant and potentially effective when applied to adolescents. First, the low intensity of a BI may be highly suitable for the approximately 25% of adolescents who are experiencing mild to moderate drug use problems and not yet developed a substance dependence disorder (Winters, Leitten, Wagner & O'Leary Tevyaw, 2007). It is not likely that drug "abusing" youth would benefit from traditional intensive drug treatment services that are geared for severe-end cases. Second, the behavior change strategies typical to a BI can also have positive spill-over effects to other problems that often accompany adolescent drug use, such as school truancy and delinquency (Dembo, Gulledge, Robinson, & Winters, 2011). Third, motivational interviewing, a core technique used in BIs, may be quite appealing to youth. These favorable, "adolescent-friendly," features are believed to arise from an interviewing style by the counselor that emphasizes input from the client, steers the dialogue clear of resistance and argumentation, and encourages the client to help shape the behavior change goals. This approach helps to develop a therapeutic culture that is more client-centered than clinician-centered (Miller & Rollnick, 2002).

Outcome studies of BIs—The effectiveness of *intensive* treatment options for adolescents involved in alcohol and other drugs have been summarized in several literature reviews (see meta-analysis reviews by Lipsey, Tanner-Smith, & Wilson, 2010, and reviews by Williams & Chang, 2000; Winters et al., 2009). Despite BIs not being as common in the drug treatment service sector compared to intensive approaches, they have received a great deal of theoretical and empirical attention in the literature. A handful of comprehensive reviews of BIs for adolescents and college students now exist in the literature (Erickson, Gerstle, & Feldstein, 2005; Grenard, Ames, Pentz & Sussman, 2006; Jensen et al., 2011; Tait & Hulse, 2003). In our synthesis of these reviews, we have identified the following themes: 1) motivational interviewing techniques are a cornerstone of most brief intervention programs (Hettema, Steele, & Miller, 2005); 2) BI's are being studied in multiple settings (Erickson et al., 2005; Grenard et al., 2005); 3) the efficacy of BI's are mixed: in some studies the BI did not outperform a control or comparison condition and yet for others, BI's showed significant efficacy (Hettema et al., 2005; Tait & Hulse, 2003); 4) generally, less reductions in alcohol use are observed compared to other drugs (Tait & Hulse, 2003); and 5) mediating or moderating elements common to those efficacious BI programs include one-to-

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one sessions, therapist fidelity to intervention components, feedback on substance use compared to norms, and improvements in problem solving skills (Erickson et al., 2005; Winters et al., 2012).

Regarding the latter issue, mechanisms of BIs is an area that is understudied in the adolescent literature. The adult BI literature suggests that motivation to change, self-efficacy and counselor empathy promote change (Hettema et al., 2005), and we know from the studies of intensive drug treatment approaches that variables associated with change include peer drug use, co-existing mental disorders, and parenting practices (Deas & Thomas, 2001; Dennis, et al., 2004; Winters et al., 2009).

Parents as interventionists

It is traditional for a brief intervention to be conducted in a health or clinical setting. Our research group is taking a non-traditional approach in that we are developing and testing a brief intervention program that is *parent-led* and to be implemented in the *home*. Our central research question is this: Can a parent, with an adolescent who is in the early stages of drug involvement, be trained in the basics of brief intervention skills (e.g., motivational interviewing and cognitive behavioral strategies) and then implement with fidelity these skills across a handful of one-to-one “talk sessions” with the adolescent in the home? By all accounts from the research literature, survey data and the opinions of parenting experts, few parents engage in any formal type of home-based intervention when they learn that their adolescent has been using drugs. Teaching parents to use a developmentally appropriate and valid intervention could reduce their uncertainties and anxieties as to how to respond to such drug use, increase their confidence that they can be an agent of change, and maximize the likelihood of affecting desired results. Also, because our program will target mild-to-moderate drug using teenagers, we will address a gap in typical health service options for drug treatment. Intervention-type programs for early-stage substance abuse, which are typically not reimbursed by health insurance programs, rarely exist as an option in a community’s range of services for drug treatment. If a family has health insurance for drug treatment services, eligibility for such services routinely requires that the adolescent meet criteria for a substance *dependence* disorder. We highlight below several theoretical and empirical factors that support and challenge the viability of parents as interventionists.

Support for parents as interventionists—We contend that parents can be activists for change to occur in their adolescent. We have identified six factors on which we base this confidence that a proven brief intervention can be successfully translated into a practical tool for parents.

1. A home-based approach has the potential to be effective because parents have an ongoing opportunity to promote key behavioral skills and changes in attitudes in their drug-using adolescent son or daughter. In line with this factor is that over 70% of adolescents live at home with at least one of their biological parents (SAMHSA, 2007).

2. Despite the psychological forces of individuation and separation during adolescence, parents are still a key socializing influence during the adolescent years

(Steinberg, 2001), and their attitudes and behaviors about drug involvement can be influenced by parents (Jackson, 2002). Parents may not realize how influential they can be as a vehicle for change with respect to their adolescent's drug use behaviors. Parental awareness of their adolescent's displays of autonomy (Steinberg, 2001) may erode their confidence in and willingness to exert influence in their son or daughters' life. However, parents have a major socializing role during the childhood years and this continues into adolescence (e.g., Smetana, 1995; Hartup, 1983). The significant role of parents occurs for many reasons: ongoing access to the child; greater opportunity to provide continuous influences; multiple teachable moments in which various behavior change methods can be applied in real world situations; and the position in the family to enforce family norms and expectations. Also, adolescents continue to be receptive to parental influences in many domains, including value-type issues, such as attitudes and expectations about personal drug use (Clark & Winters, 2002; Dishion & Kavanagh, 2003; Jackson, 2002).

3. Several indicators of substance use— children's beliefs or expectancies about the consequences of substance use, perceptions of social norms of substance use, perceptions of parents attitude about substance use, and affiliations with drug-using peers—can be influenced by parenting practices (Clark & Winters, 2002; Hawkins et al., 1997; Miller, Smith, & Goldman, 1990; Peterson, Hawkins, Abbott, & Catalano, 1994). These favorable, anti-drug use parenting practices include setting clear expectations and rules; role modeling; implementing high-level monitoring; reinforcing appropriate behavior; communicating to the child the risks of drug use; supporting drug use resistance behaviors by the child; and communicating a no tolerance attitude toward drug use.

4. Parents who participated in our counselor-directed brief intervention (Winters et al., 2007) were highly engaged, showed very favorable motivation, and complied with the counseling goals. The learning tasks for parents are similar to those that are included in the home-based version. Our post-intervention survey revealed that the overwhelming majority of participating parents were highly satisfied with the intervention. Respondents either "agree" or "strongly agree" to both questions on the survey as to their opinions about a parent-based concept ("I would be a better parent if I learned more about how to apply the tasks from the parent session," and "If a practical, user-friendly version of the intervention were taught to me, I would use it use it in my home").

5. A small empirical literature exists supporting the view that highly engaged and participatory parents can influence the health behaviors of their children. For example, Chassin and colleagues used cross-sectional data from participants in an ongoing longitudinal project to show that parents with greater negative health beliefs about smoking showed greater "parental activism" (as demonstrated by expressing more discouragement about smoking and greater monitoring of the child's smoking), which was associated with less smoking by the child at home (Fearnow et al., 1998).

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6. Another supporting body of empirical work affirms translational success with a home-based program that is similar to what we have developed. Christine Jackson and colleagues have conducted the first randomized trial in which a parent-led and home-based anti-smoking program was developed and tested in households where at least one parent was a smoker. The three-month outcome data indicated that parents in the active condition, compared to those in the control condition, reported significantly higher levels of self-efficacy to prevent smoking, greater engagement in tobacco-specific media literacy, more use of social contracts, and more instances of reinforcing their child for staying smoke-free (Jackson & Dickinson, 2003). The three year follow-up outcome data indicated a significantly lower rate of smoking initiation among adolescents in the treatment group (12%) compared to those in the control condition (19%) ($p < .01$) (Jackson & Dickinson, 2006).

7. There are other relevant literatures that additionally support the feasibility of the research study. Prospective epidemiological data from the prevention literature indicate that parental monitoring and good family relations are linearly related to age of onset of illicit substance use, even when comorbidity is controlled (e.g., Chilcoat & Anthony, 1996); clinical descriptive studies have documented that effective parenting practices are associated with reduced risk for substance involvement and more successful recovery after drug treatment (e.g., Bray, Adams, Getz, & Baer, 2001; Clark, Neighbors, Lesnick, & Donovan, 1998; Denton & Kampfe, 1994; Gorman-Smith, Tolan, Loeber, & Henry., 1998; Smit et al., 2008; Williams & Chang, 2000; Windle, 2000; Winters, 1999); and controlled trials of intensive family-centered interventions have demonstrated the efficacy of parental involvement in reducing substance use and related problems (Dembo & Schmeidler, 2002; Henggeler, Cunningham, Pickrel, & Brondino, 1996; Liddle & Hogue, 2001).

Barriers to parent involvement—Nonetheless, we are cognizant of expected sources of parental non-compliance. Parents are very busy, with work and other parenting responsibilities. Many parents may not perceive adolescent drug use as a health concern and thus may give this issue a much lower priority than other concerns, such as promoting school connectedness and involvement in extra-curricular activities. Also, parents may begin to disengage from intensive parenting as they see their adolescent strive for more independence from them. This view can contribute to a biased perception that the parent is not able to influence change in their adolescent. Finally, we appreciate that if the program is too complicated that many parents, despite the best of intentions, may not successfully implement it.

The Research Project

Our ongoing research project will test the effectiveness of this parent interventionist program, Home Base, to positively impact youth who are moderately involved with alcohol or other drugs. The program consists of two modules– the parent intervention manual and the training packet. The core elements and components of the program are described below.

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Training and intervention materials were developed with a rigorous process

The development of these materials consisted of four steps. First, an initial draft of the training and intervention protocols was developed by the research team and scientific consultants, guided by: 1) research on BI's (e.g., Winters et al., 2012), 2) research on strategies associated with behavioral reinforcement approaches (e.g., Community Reinforcement Approach; Godley et al., 2001), 3) parent-based prevention programs, 4) family-based therapies and, 5) motivational enhancement approaches. Then, this version was reviewed by the parent advisors and changes were made accordingly to form the 2nd draft. Third, the 2nd draft was tested on five practice families; the training was conducted by the staff Trainers and the PI. This feasibility test also consisted of weekly telephone calls to solicit qualitative feedback from the parents. At the completion of this test, we conducted a parent focus group to seek their input as to strengths and weakness of the program. This input, along with the weekly qualitative reports and the views from the Trainers, were incorporated into a 3rd draft of the program. Finally, this 3rd draft was reviewed by the project's scientific consultants and the Center's parent advisors, and any final edits and suggestions were incorporated. During steps 2 and 4, formative evaluations were sought regarding the acceptability and scientific integrity of the intervention. We administered: 1) an open-ended feedback guided by a standardized acceptability assessment questionnaire to parent advisors in Step 1 and, 2) a modified version of the 8-item NCI Education Materials Review Form, which has been used in evaluation research of intervention protocols (Cardinal, 1995) to families in Step 4.

Training and intervention materials were developed to be engaging

In this light, we sought to develop the materials so that they were *user-friendly* (e.g., use of simple language), *interactive* (e.g., include entertaining games, role playing, and homework assignments) to increase compliance, and *relevant* (e.g., menus of activities to meet adolescent's gender, age, culture and substance-general).

Content of material allows for flexibility

Whereas the parent intervention manual is very detailed and specific, some flexibility in the use of manuals has been encouraged in behavioral-based treatment research (Dobson and Shaw, 1988; Kendall, Chu, Gifford, Hayes & Nauta, 1998). Several aspects of the intervention require some adaptation to the adolescent's age, personality, living situation, peer issues, gender of the parent, the family composition and the role of the other parent, among other variables. The parent and training manuals provide specific instructions to the trainer and the parent as to when and how flexibility is to be applied.

Content of materials addresses the parent and adolescent objectives

Parent objectives of the intervention are the following: bolstering parental expectations of no drug use by their adolescent; increasing knowledge of proximal factors that maintain their adolescent's drug use and factors that can contribute to desistance of drug use; strengthening parental communication skills and increase the application of these skills with respect to parent-to-parent and parent-to-adolescent communication; improving parental monitoring of the adolescent's compliance with family drug-free expectations and with

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behaviors that will promote a drug-free lifestyle; increasing parent skills in identifying triggers of the adolescent's drug use and strengthening commitment to assist the child to cope with these triggers (e.g., refusal skills when faced with peers, social situations, etc.); and strengthening parental self-efficacy that incorporating these behavioral and attitudinal changes will promote the intervention goals. *Adolescent* objectives include these: increasing compliance with drug-free expectations; increasing communication with the parents pertaining to successes and challenges in implementing the drug-free behavioral changes; more engagement in activities that are asset building and less engagement in activities that are risks to continued substance use; and strengthening his or her self-efficacy that behavioral and attitudinal changes will occur.

Parent training is comprehensive

We have developed a single, 3-hour, training session that is conducted by the parent coach with either a small group of parents or on a one-on-one basis. The training materials include a detailed Power Point presentation, discussion sessions, role-playing, and periodic mini-quizzes as part of the review sessions. The bulk of the training involves a very detailed review of each of the intervention sessions and how assistance is provided by the coach to the parent during program implementation. The training also emphasizes the importance and seriousness of addressing the adolescent's substance use behaviors within a developmental focus, including how early substance use can contribute to the risk of future dependence, the key role that the parent can play as an intervention agent, and developmental aspects of adolescent drug involvement. Subsequent to the core training session, the assigned coach connects with the parent by telephone. The first call is a brief reminder a day or so before the date that the initial session is scheduled. Next, there are the two between-session calls, one after session 1 and the next after session 2. These contacts provide an opportunity to discuss the recently completed session and to review the goals for the upcoming session. A final phone call occurs after the third session; here progress with the program is discussed and next steps are identified (e.g., continue to work on the goals).

Parent manual is comprehensive and detailed

The manual summarizes the objectives of the program and then provides a detailed description of the three 60-minute sessions that are to be delivered over a 3-week period in the home. Each session includes an introduction, core content, homework assignments, wrap-up summary, and reference material. The introduction identifies the goals of the intervention, the basic strategies and approaches to be learned, and how their implementation will contribute to positive change. The core content includes a suggested script for each component of the session, side-bar statements of encouragement and how to handle challenges (e.g., steer clear of over-reacting), self-assessment questionnaires, activity guides, worksheets to supplement learning objectives, homework assignments, follow-up guidelines, activities and self-evaluations.

Parents are taught to use counseling techniques

The following behavior-change strategies are integrated into the program for implementation by the parent: motivational interviewing, with a focus on how to deal with

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resistance; negotiating individualized and specific goals; use of role modeling; behavioral rehearsal; reinforcing changes in a step-wise manner (beginning with easier goals and working toward more difficult ones); cognitive re-structuring; and communication skills. Also, there is a focus on increasing awareness by the parent to assess progress and reward goal attainment, and to address barriers to achieving the goals.

Parents are taught to improve parenting practices and to promote a drug-free lifestyle

Specific tasks in the program that promote these features are the following: communicating family expectations about the adolescent being drug-free; establishing family rules about parents' use of alcohol and use of prescribed medication by any family members; monitoring the adolescent's access to peers and social situations that may contribute to substance use; teaching the adolescent problem solving skills to deal with inter- and intra-personal triggers of substance use; improving parent-adolescent communication; teaching how to argue fairly; determining what consequences will occur if the adolescent does not remain drug-free; and determining what rewards will occur when the adolescent achieves progress toward goals.

Study Design

Our study is both a Stage I and Stage II investigation of a new intervention strategy. We have already completed the Stage I activities – which involved developing the parent intervention and training manuals, and conducting a small pilot study to test the program's feasibility. The ongoing Stage II activities focus on testing the efficacy of the program with a randomized controlled trial (RCT). Specifically, the primary aim of the RCT is to evaluate the efficacy of the parent intervention by comparing two groups (intervention and control groups, 110 families per group) who have been randomly assigned to condition. Evaluation data to quantify intervention effects will be obtained by assessing adolescents and parents at multiple time points (baseline and 3-, 6- and 12-months post-baseline). We hypothesize that the home-based intervention will be superior to a control condition. A secondary aim is to examine hypothesized mediating mechanisms that contribute to post-intervention improvement in the adolescent. We hypothesize that a favorable response to the intervention by the adolescent will be mediated by motivation, cognitions, problem solving, peer substance use, parenting skills and parent self-efficacy.

Inclusion criteria

An important inclusion criterion is that the adolescent self-reports only a mild-to-moderate level of substance use severity. The intervention is aimed at the early-stage, moderate drug-using individual. Also there are some important inclusion criteria on parent participation. We decided to limit parent participation to the parent who reports a) regular contact with the target adolescent (>15 days per month), and b) being the most involved in exercising responsibility for the conduct and welfare of the adolescent (consistent with the Parent Translational Research Center's definition of a parent). We realize that this decision requires the coach to make some adaptations during the training.

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Groups

As described in an earlier section, the intervention condition consists of three separate 1-hour sessions that are to be conducted in the home between the parent and teenager. Sessions are to be spaced by about a one-week time period. Parents in the control condition receive an educational-based intervention. We chose this approach over an assessment-only condition given that recruitment problems and selection bias can occur when a parent is faced with the possibility of being assigned to a condition that does not offer any assistance. The control condition consists of printed fact sheets that will be delivered to parents in a single one-hour session. These fact sheets provide general drug-related information from the public domain (e.g., substance use trends and well-known dangers of substance involvement), and focus on communication approaches and talking points when discussing substance use with their adolescent (e.g., why adolescents use; how the media may influence attitudes about substances). Parents in the education-only condition may gain knowledge of adolescent substance use issues and macro level factors that pertain to onset and maintenance of adolescent substance involvement, but because they are not offered specific behavior change strategies, it is not expected that the information will affect mechanisms of behavior change.

Coaches

Our coaches (or parent trainers) are two masters-level staff, each with an advanced degree in the behavioral sciences and with extensive experience in delivering brief interventions to youth and parents. Subsequent to the development of the training and intervention materials, the coaches received an all-day training workshop from this author. The workshop included didactic presentation, role plays, trainee demonstration, and discussion. Each coach was rated for adherence when they conducted parent trainings as part of the feasibility study.

We are discovering that the coaches are fulfilling several roles for the parent – as trainer, mentor, and support person. The connection between them begins in the training session, and it is further strengthened as a result of the subsequent mini-contacts. Whereas we are observing considerable variability in how parents interact with and rely on their coach, our coaches commonly observe signs that parents appreciate that they have a support person throughout the implementation of the program.

Summary

Our research group is encouraged by several years of investigating brief interventions, and nearly 25 years in studying adolescent substance abuse and the family, that the parent interventionist program will be of interest to parents, can be taught to them and that it will be used by them. Parents continue to influence their children during the teenage years and they have great potential to be a key change agent for a teenager who is abusing drugs. Parental influences on a teenager can include reducing initiation, altering its maintenance if it has started (which is the aim of the *Home Base* study), and contributing to the recovery of problematic substance use. Also, there is an emerging science that home-based initiatives by parents can contribute to desired health changes in teenagers (Fearnow et al., 1998; Jackson & Dickinson, 2006). This paper describes an ongoing study that will rigorously examine if a

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home-based, parent-led program can reverse the trajectory of drug use in an already drug-using adolescent. Also, this study is a natural fit within the Parent Translational Research Center's central theme to translate key elements from proven clinical interventions for parents to use in addressing the substance use problems of their adolescents.

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