

A Culturally Sensitive Approach to Treating Substance Abuse in Athletes Using Evidence-Supported Methods

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Substance abuse in athletes is both prevalent and dangerous, leading to its international recognition as a public health concern. In recent controlled trials, behavioral prevention programs have been shown to reduce alcohol use in collegiate student athletes who are at-risk for alcohol abuse, with outcomes appearing to be enhanced when family members are prescriptively involved. However, no interventions have been found to decrease alcohol or drug use frequency in controlled trials involving athletes who have been diagnosed with substance abuse, and no prescribed clinical interventions for substance abuse have been tailored to accommodate the unique needs of competitive athletes. As an initial step in this development, we review an evidenced-supported behavioral treatment program modified for use with athletes. Optimizing the support of significant others, this innovative treatment approach comprehensively targets multiple areas of mental health while emphasizing cultural enlightenment. Recommendations are offered, including the great need for controlled treatment outcome research specific to substance abuse in athletes.

Keywords: athletes, family behavior therapy, substance abuse, sport, drug abuse

Evidence-based therapies (EBTs) have become the standard of care in most clinical practice settings. Indeed, mental health professionals are ethically responsible to implement EBTs when available (Miller, Zweben, & Johnson, 2005). However, in some clinical populations, treatment outcome research is sparse, necessitating integration of best available research-supported practices (Goodheart, 2011). Along similar lines, the American Psychological Association's Presidential Task Force on Evidence-Based Practice indicates that when outcome research is sparse in uniquely specified clinical populations, it is warranted to implement treatments that have been found to be efficacious in similar populations, making adjustments to appropriately address diversity issues as needed (APA, 2006).

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As will be demonstrated below, the aforementioned guidelines are particularly relevant to substance abuse treatment in athletes for three primary reasons: (a) substance abuse and dependence in athletes is an endemic public health concern, (b) evidence-based treatments for substance disorders in athletes have yet to be studied in controlled trials, and (c) the unique culture within sport suggests validated substance abuse treatments should be appropriately tailored to accommodate the unique needs of athletes (Martens, Dams-O'Connor, & Beck, 2006). Therefore, this article describes an efficient integration of evidence-supported substance abuse interventions tailored for use with athletes. The core evidence-based treatment is a sport-specific adaptation of a clinical treatment known as Family Behavior Therapy (FBT; Donohue & Allen, 2011; Donohue & Azrin, 2013). FBT is complemented with two validated engagement interventions to address the well-established reluctance of athletes to pursue intervention (i.e., Sport Psychology Benefits Interview, Donohue, Dickens et al., 2004c; Semi-Structured Interview for Consideration of Ethnic Culture in Therapy, Donohue, Strada et al., 2006). Before describing this substance abuse treatment approach, we underscore the need to tailor evidence-based substance abuse treatments to accommodate the culture of sport, including common consequences and coexisting problems resulting from substance abuse within athletes. The article concludes with recommendations that are specific to modifying substance abuse treatment programming in athletes.

Substance Abuse in Athletes Is a Pervasive Public Health Concern

Although there has been a general lack of substance abuse research in sports (see Seear & Fraser, 2010), well-established stressors have been identified in athletes that increase their risk of substance abuse. For instance, competitive athletes often report perceived pressure from others to attain optimum levels of success in multiple life domains (Coakley, 2006), particularly sport performance (Evans, Weinberg, & Jackson, 1992). Pressure has been shown to interfere with appropriate social, occupational, and/or academic development in athletes (Nattiv & Puffer, 1991; Watson, 2005), and may lead to significant anxiety (Pearson & Petitpas, 1990). Specific to family-based stressors, athletes often are separated from family for extended periods of time, leading them to miss significant family events or feel socially isolated (Lett, & Wright, 2003; Masland, 1983). Athletes have also been identified to manage stress by potentially engaging in dangerous risk-taking behaviors, such as substance use (Lisha & Sussman, 2010) and its comorbid problem behaviors (Nattiv & Puffer, 1991).

Prevalence of Substance Use in Athletes

Extant studies (Taylor & Turek, 2010) have found that some athletes in high school (e.g., African-American girls) report comparable or lower rates of alcohol, marijuana, and illicit drug use as their nonathlete peers. However, most studies have found that athletes in high school report greater substance use than their nonathlete

peers, particularly alcohol, stimulants, and anabolic steroids. For instance, 36% of high school athletes were found to report alcohol use twice per week as compared with 21% of nonathlete peers; a similar discrepancy was found in binge drinking (Hildebrand, Johnson, & Bogle, 2001). Similarly, high school athletes have been found to report using greater amounts of alcohol during their last months of high school as compared with nonathlete peers (Wetherill & Fromme, 2007). Rates of alcohol and marijuana use appear to be particularly high among Caucasian high school athletes (Naylor, Gardner, & Zaichowsky, 2001). The overall rate of steroid use in adolescents is estimated to be about 5% (Mottram, 2005). However, athletes account for most incidents of steroid use in high school. Indeed, the extent of sport participation, and number of recreational illicit drugs used by high school athletes, have both been found to predict steroid use (Lorang, Callahan, Cummins, Achar, & Brown, 2011). Thus, although not definitive in all high school athlete subpopulations, there is substantial evidence to suggest high school athletes generally report more substance use than their nonathlete peers, particularly Caucasian male athletes involved in team sports.

Collegiate athletes have generally reported higher use of substances than the general population of college students (Meilman, Leichter, & Presley, 1999). For instance, collegiate student athletes have been found to report more binge drinking, approval of alcohol use, and greater availability of alcohol; and receive more offers to use alcohol than their nonathlete peers (Turrisi, Mastroleo, Mallett, Larimer, & Kilmer, 2007). Brenner and Swanik (2007) found that 75% of collegiate student athletes reported binge drinking at least once during the past 2 weeks, and student collegiate athletes are within the age range that is most at risk to experience dangerous consequences due to alcohol abuse (Perkins, Meilman, Leichter, Cashin, & Presley, 1999). Martens et al. (2006) concluded, "The findings from multiple national studies are unequivocal: in general, college athletes consume more alcohol, engage in more frequent heavy episodic drinking, and experience more negative alcohol-related consequences as compared with college students who are not intercollegiate athletes" (p. 314).

Alcohol use is positively associated with illicit drug use in collegiate student athletes (McCabe, Brower, West, Nelson, & Wechsler, 2007), and collegiate student athletes generally abuse illicit drugs at higher or similar rates than collegiate students who are not athletes (Yusko, Buckman, White, & Pandina, 2008). Stimulant drugs (NCAA research staff, 2006) and marijuana (Green, Uryasz, Petr, & Bray, 2001) are particularly pervasive among collegiate student athletes.

Although very few studies of substance misuse have been conducted in professional and Olympic athletes, drug abuse at this level has been indicated to be problematic (Yesalis & Bahke, 2001). Stimulant hard drug use (e.g., cocaine) was initially considered to be a drug of choice among professional athletes (Bryant, 2006). However, the use of performance-enhancing drugs (Becker & Scheufele, 2008), prescription drugs (Taioli, 2007), and other illicit substances (Laure, Binsinger, & Lecerf, 2003) by professional athletes has recently received media attention. In one of the few studies of drug abuse in professional sports, Cottler et al. (2011) found that 71% of players retired from the National Football League reported (in a telephone survey) misuse of opioids at some point in their careers, and 7% reported current use, which is three times greater than the general population.

Malone (1991) surveyed 262 male athletes in a professional sport league and found that 93% reported alcohol use during the past month, and a third reported two or more drinking episodes of more than five drinks during the past 2 weeks. Fifteen percent of those athletes were indicated to be problem drinkers.

Therefore, it is clear that illicit drugs and alcohol are being misused by high school, collegiate, and professional athletes, particularly alcohol, marijuana, stimulants, and steroids. Moreover, these rates of substance use may be gross underestimates because they are almost exclusively based on self-report data, and there are severe negative consequences for drug use detection in sports, particularly among elite athletes (Dimeo, 2011).

Problems Related to Substance Abuse in Athletes

The consequences of substance abuse in athletes are well documented. A total of 80% of high school coaches participating in a national study reported that substance abuse was a problem with their athletes (King, Dowdall, & Wagner, 2010). The assertions of these coaches are validated in research, as sport participation in adolescents appears to be associated with faster acceleration in problem alcohol use (Mays, DePadilla, Thompson, Kushner, & Windle, 2010). Substance abuse is the leading referral to campus counseling centers (see Glick & Horsfall, 2009), and collegiate athletes are more at risk to experience greater severity of negative consequences due to substance use than collegiate students who are not athletes (Grossbard, Hummer, LaBrie, Pederson, & Neighbors, 2009). The specific consequences of alcohol intoxication and abuse in athletes have included assault, DUI, police contacts, injuries, death (see Doumas & Haustveit, 2008), alcohol poisoning, unsafe sexual practices leading to risk of sexually transmitted diseases (see Scott-Sheldon, Carey, & Carey, 2008), and perpetration and victimization of rape and interpersonal problems (e.g., Ullman, Karabatsos, & Koss, 1999). In addition, athletes have been identified to report problem behaviors that frequently coexist with substance abuse, such as stress (e.g., Kimball & Freysinger, 2003); poor relationships with teammates, family, and coaching staff (Donohue, Miller et al., 2007a); anxiety; mismanagement of injuries; dysfunctional thoughts; adjustment problems; inability to cope with physical pain (e.g., Donohue, Silver, Dickens, Covassin, & Lancer, 2007); psychiatric symptoms (Donohue et al., 2004b); and academic problems (Wechsler, Molnar, Davenport, & Baer, 1999). Academic problems are noteworthy, as many athletes from disadvantaged backgrounds are ill-prepared for college (Gill, 2008), and substance use increases the likelihood of negative academic outcomes (e.g., dropping out, lower grades, poor classroom attendance; King, Meehan, Trim, & Chassin, 2006). Steroid and stimulant drug use increase the risk of heart attacks when athletes engage in strenuous exercise, and stimulants have been indicated to exacerbate mental health disorders, such as eating disorders (Garner, Rosen, & Barry, 1998). There is some support to suggest individuals who inject steroids are at increased risk of HIV and hepatitis (Midgley et al., 2000). Lastly, testing positive in biological testing aimed at determining the use of prohibited substances is severely punished, including being expelled from school, indefinite suspension from sports, or having employment terminated

(Mottram, 2011). Therefore, the consequences of alcohol and illicit drug use in athletes warrant comprehensive prevention and treatment.

Absence of Evidence-Supported Substance Abuse Treatments Tailored for Use With Athletes

Although it is estimated that at least 10–20% of student athletes have been found to suffer psychological illnesses warranting mental health treatment (e.g., Murray, 1997), it has been suggested that athletes notoriously underutilize counseling programs (Brewer, Van Raalte, Petitpas, Bachman, & Weinhold, 1998). Cooper (2006) suggested that athletes would pursue mental health programming to a greater extent if such programs were culturally sensitive, while others have expressed concerns with the lack of evidence-based treatments for substance abuse in athletes. For instance, Anshel (1991) reported that drug testing and enforced negative consequences for positive urinalysis results in athletes were harsh and ineffective, suggesting that sport psychologists should consider using cognitive behavioral therapies when treating drug abuse in this population. Martin (1998) indicated discontent with commonly employed lecture format methods to manage drug use in student athletes.

Cases being treated in university counseling centers appear to have increased in severity, and the mental health needs of student athletes are at times not being adequately addressed (Benton, Robertson, Tseng, Newton, & Benton, 2003; Kadison, 2006; Reifler, 2006). Indeed, some of the leading scientists in the world have recently argued for the immediate development of sport-specific interventions to combat heavy substance abuse in athletes. In their extensive meta-analysis involving 98 intervention conditions, Carey et al. (2007) concluded, "Overall, these findings highlight the need to develop more efficacious interventions for heavy drinking students and those who belong to other at-risk groups such as Greeks and athletes" (p. 9). Martens, Kilmer, Beck, and Zamboanga, (2010) concluded, "Given the high risk nature of this population (student athletes), it is important that researchers examine the efficacy of interventions designed to reduce heavy drinking and related problems among this group" (p. 660). Misch (2009) reported that on-campus substance abuse recovery programs are needed, and Turrissi et al. (2009) emphasized that student athletes are relatively under-examined in alcohol interventions. Hser, Longshore, Bretch, and Anglin, (2005) reported that there is a significant need to develop treatments for vulnerable young adult groups shown to be more affected by drug use. Similarly, Aoyagi, Portenga, Poczwardowski, Cohen, and Statler (2011) reported that although combined therapeutic and sport performance interventions are needed in athletes, prescribed methods have yet to be adopted.

We argue that there are existing evidence-based behavioral treatments available for use in athletes. However, these interventions are not customarily being used in this population, and these treatments are certainly not being sufficiently adapted to accommodate the unique needs of athletes and their cultural perspective of therapeutic services. Thus, there is a great need for the dissemination of evidence-based substance abuse treatments that are culturally adapted for use with athletes.

Evidence-Based Substance Abuse Treatments Applicable to Athletes

Before appreciating how evidence-based substance abuse treatments might be adapted for use in athletes it is important to underscore those interventions that are likely to be appropriate in this population. As will be strikingly evident, the behavioral interventions for substance abuse (i.e., behavior therapy, cognitive behavior therapy, cognitive therapy), and various derivatives of the behavior therapies (e.g., contingency management, goal setting, social skills training) have been found to be highly efficacious (see Rounsaville, Carroll, & Back, 2004) and consistent with tenets espoused in sport. Motivational and significant other supported models complement behavioral treatments for substance abuse, as these approaches have consistently demonstrated effectiveness (Rowe, 2012) and are cost-efficient to incorporate (Morgan & Crane, 2010). Indeed, cognitive-behavioral therapies (CBTs), behavioral therapies, motivational enhancement therapy (MET), and family systems therapies are recommended with substantial confidence by the American Psychiatric Association in their *Practice Guideline for the Treatment of Patients with Substance Use Disorders* (APA, 2006), and clinical researchers emphasize the importance of integrating these therapies in the amelioration of substance abuse (Carroll, Ball, & Martino, 2004).

CBTs for use in substance use disorders were developed based on social learning theories, and target dysfunctional thoughts and behaviors that are conceptualized to be central in maintaining substance use behaviors. CBTs include social skills training intervention components that are intended to enhance interpersonal communication, relapse prevention targeting substance use ambivalence, and coping strategies to assist in the management of environmental and emotional stressor. CBT techniques are often combined, forming multicomponent interventions capable of enhancing performance in athletes through the use of goal setting, self-talk, imagery, and arousal regulation. Gardner and Moore (2006) showed, through structured qualitative review, that existing CBT techniques demonstrate a lack of sufficient empirical evidence. Social skills training is especially pertinent to athletes since it can be used to build team cohesion (Senecal, Loughhead, & Bloom, 2008). A significant advantage of using CBT interventions in sport performance is that athletes are familiar with them, and coaches routinely employ these techniques. Thus, there may be inherent biases for coaches and athletes to prefer CBT over other interventions.

According to behavioral theory, substance use disorders may be eliminated through systematic manipulation of the environment, changing the contingencies that lead to substance use by fostering drug incompatible behaviors, and simultaneously rewarding therapeutically desired behaviors. Contingency management, community reinforcement, cue exposure, and relaxation training are all examples of behavioral intervention components that have been found to assist in the amelioration of mental health problems, including substance abuse (APA, 2006). CBT interventions appear to offer distinct advantages in the treatment of athletes because sport performance enhancement is dependent on both behavioral and cognitive change (e.g., Mattie & Munroe-Chandler, 2012).

Motivational enhancement therapy (MET) is based on motivational interviewing (Miller & Rollnick, 2002), and is an empathic, nonconfrontational intervention

approach aimed at preparing individuals for positive change. The approach may be used to manage ambivalence by examining the pros and cons of behavior change (i.e., abstinence from illicit substance use), and exploring goals and discrepancies with current behavior. MET is one of the most widely used interventions to treat motivational deficits in mental health (APA, 2006) and is especially relevant for use in athletes when they are experiencing cultural isolation and adverse conditions that foster ambivalence. MET may be ideally suited for athletes due to intensive daily demands in training and competition.

Significant other support systems (e.g., caregivers, intimate partners, coaches, teammates) have been relatively neglected when treating athletes in both clinical trial and practice settings despite well-established advantages regarding their inclusion. For instance, significant others may be used to provide information that is relevant to assessment, engage athletes in treatment, monitor target behaviors, enhance communication, appropriately react to relapses, model appropriate skill sets, and maintain positive contingencies for goal attainment. Donohue, Miller, et al. (2007a) determined that competitive high school runners perceived their caregivers to be most influential in their sport performance when compared with their coaches, teammates and peers. O'Rourke, Smith, Smoll, and Cumming (2011) found that parents create motivational climates that significantly influence sport performance outcomes in their children.

Recent controlled prevention trials have demonstrated that alcohol use, and its negative consequences, can be reduced in collegiate student athletes with behavioral intervention (Doumas & Haustveit, 2008; Doumas, Haustveit, & Coll, 2010; Martens et al., 2010; Turrise et al., 2009). The Turrise et al. (2009) study empirically justified for the first time in athletes a family inclusion model of substance use reduction using telephone technology to enhance outcomes. Their work complements the findings of Wood, Read, Mitchell, and Brand (2004), showing students use less alcohol in college when their parents are informed of their experiences. In developing their model, Turrise et al. (2009) insightfully determined that involvement of family members permitted cultural and individual concerns to be more accurately assessed and managed within standardized programming, and demonstrated that parental influence extends into college. Abar and Turrise (2008) found that parental disapproval of alcohol use, parental monitoring, and parental knowledge of their teens' activities, all helped to reduce alcohol use and association with heavy alcohol-using friends for their children while in college. The investigators discovered that most parents were geographically distant from their children, and recommended that parents should be included during intervention planning while fostering parental disapproval of alcohol misuse. The Turrise et al. (2009) approach to family inclusion is consistent with the aforementioned behavioral models, and recommendations of others (Zimmerman & Protinsky, 1993).

Clinical sport psychologists have traditionally used cognitive, cognitive behavioral, and behavioral therapies to assist athletes in the amelioration of problem behaviors and thoughts that are specific to sport performance enhancement (Weinberg & Comar, 1994). However, researchers and practitioners in this field have rarely examined the utility of indirectly improving sport performance through the amelioration of mental health illnesses (i.e., substance abuse) despite the need for such examination (see Gardner & Moore, 2006, and Raglin, 2001). It is our contention that the field of clinical sport psychology is primed to expand adaptation of evidence-based behavioral substance abuse treatment for use in competitive athletes.

An Alternative Family-Based Healthcare Option for Substance Abuse in Athletes

Family behavior therapy (FBT), developed by Azrin, Donohue and their colleagues (Donohue & Allen, 2011; Donohue & Azrin, 2011) with support from the National Institute on Drug Abuse and National Institute of Mental Health, is an evidence-supported behavioral treatment system that combines many of the aforementioned therapy components for substance use disorders. As one of the very few treatments to demonstrate significant reductions in both illicit drug and alcohol use in controlled clinical trials involving both adults and adolescents (see reviews, for example, by Bukstein & Horner, 2010; Carroll & Onken, 2005; Macgowan & Engle, 2010), treatment manuals exist for youth and adults (Donohue & Allen, 2011). This is important because experts in sport psychology have explicitly recommended the development and implementation of behavioral drug treatment programs in athletes of all ages (e.g., Anshel, 1991), and high school, collegiate, and professional athletes range in age from adolescents to adults.

FBT involves engagement of significant others as change agents in bringing about a substance-free lifestyle. Reciprocity in the exchange of reinforcement between clients and significant others is conceptualized to assist in maintaining qualitative relationships that act to buffer against substance use, while facilitating desire to achieve academic, personal and relationship-oriented goals through skills training and reciprocal reinforcement (i.e., emotional, tangible). This general approach is consistent with the tenets of behavioral theory, i.e., substance use is reduced when skill-sets are developed or the environment is altered to facilitate development of antecedent conditions that act to buffer against substance use/problem behaviors, allow aversive stimuli to occur consequent to substance use, and promote positive consequences for abstinence (Azrin, 1976).

Consistent with the tenets of behavioral theory, substance use is conceptualized to be a strong inherent reinforcer, leading to pleasurable sensations, social support, and minimization of aversive emotions. While it is true that negative consequences occur subsequent to substance use, the severity of these consequences is often minimized or suppressed (Donohue & Azrin, 2011). Thus, the impact of negative consequences for substance abuse may not be fully realized by athletes. To assist in gaining long-term abstinence from substances, FBT providers: (a) assist in developing skills that are incompatible with substance use (e.g., recognize and control antecedents to substance use, establish communication skills to decrease arguments and other stressful antecedents to substance use); (b) modify the environment to facilitate reinforcement for time spent in substance-incompatible activities (e.g., sport practice, enrollment in school or work, creating social network of nonaddicted friends); and (c) reward actions that are incompatible with substance use. Significant others are conceptualized to assist in goal accomplishment because these persons have established themselves as generalized reinforcers capable of influencing the behaviors through positive interaction and implementation of consequences.

Family behavior therapy typically consists of 12–16 outpatient sessions of 90 min that are scheduled to occur across 4–6 months, while up to 20 sessions may be warranted in particularly problematic target populations. Standardized methods are used to assist therapists in coherently conceptualizing assessment information for clients and their significant others, and guiding them in the selection of their

own treatment plan from a menu of options. There are eight FBT intervention components:

FBT Intervention Components	Summary
Orientation	Formal orientation to FBT
Treatment planning	A menu of intervention options are reviewed and subsequently ranked for intervention priority.
Goals and rewards	Goals are customized from a generic list of options, and significant other rewards are specified for goal accomplishment.
Environmental control	Risk and nonrisk stimuli interfering with goal accomplishment are determined and environmentally managed.
Self-control	A cognitive method of terminating impulsive problem behaviors, generating solutions, and visualizing selected plans.
Relationship enhancement	Communication skills training specific to initiating positive requests, and establishing strong relationships with significant others.
Job-getting skills training	Learning to obtain jobs efficiently.
Financial management	Learning to decrease expenses and increase income.

Selected therapies are implemented successively and cumulatively. That is, after each intervention is implemented for the first time, it is reviewed in all subsequent sessions to a lesser extent as relevant skills are developed.

Therapeutic Style and Applicability to Athletes

FBT providers emphasize positive feedback and encouragement at all times. Athletes respond well to positive reinforcement, as it is often a part of their training and competitive environment (Hume & Crossman, 1992), and empathy and praise have been found to facilitate cooperation and openness to psychological intervention in athletes (Donohue, Dickens, & Del Vecchio, 2011). Grisaffe, Blom, and Burke (2003) have indicated that athletes often like coaches who are humorous. Therefore, sport psychologists have been encouraged to incorporate humor during their implementation of intervention in athletes (Burke, Peterson, & Nix, 1995). This general style is consistent with FBT providers who are trained to be humorous, entertaining, compassionate, and inspiring.

Session agendas are also structured in a positive manner with a primary focus on goal attainment and review of achievements that occurred during the past session. This is important because external positive comments and feedback boost athletes' confidence and increase their persistence and enjoyment in target activities (Weinberg & Gould, 1999). Moreover, confidence is one of the strongest predictors of "clutch" performance (Otten, 2009). Session agendas conclude with a review of

potential interventions to implement, and athletes choose which intervention components will be implemented, thus their input is importantly considered (Martin, Jackson, Richardson, & Weiller, 1999).

FBT providers initially blame problem behaviors, including drug use, on external factors that appear to be outside their control when defensiveness is high. Assuming subsequent feedback is accurate, this technique is likely to protect self-esteem of athletes, which in turn may improve performance and persistence in competitive situations (De Michele, Gansneder, & Solomon, 1998a, 1998b). Other FBT strategies include role-playing and imagery as both assessment and treatment tools, fitting nicely with athletes due to their frequent utilization of imagery and observational learning in both competition and practice (Hall et al., 2009).

Communication guidelines are established initially in therapy to prevent inappropriate interpersonal communication, and FBT providers report compliance ratings to family members based on the athlete's promptness to session, extent of participation, and completion of assignments after each intervention component is conducted. When inappropriate interpersonal communication occurs during intervention sessions, FBT providers immediately use the HEARD intervention component (Hear, Empathize, generate Alternatives, Review alternatives, Decide what to do; Donohue & Azrin, 2011) to reestablish positive communication.

Empirical Support for FBT

In the first randomized controlled trial of FBT (Azrin et al., 1994b), adults and youth were randomly assigned to receive FBT or a nondirective control after completing baseline data. Although participants were required to evidence illicit drug use during the past month, no other restrictions were placed on the extent and type of substance used (e.g., marijuana, cocaine, heroin, alcohol, barbiturates) to enhance external validity. All substances, including alcohol, were conceptualized to be detrimental, and therefore, targeted in treatment. Results indicated that, as compared with control group participants, participants assigned to FBT demonstrated greater improvements throughout the year following baseline in conduct problems, family functioning, parent satisfaction with youth, depression, and work/school attendance. Outcomes were similarly positive regardless of substance examined (i.e., hard drug, alcohol, marijuana). These results were maintained at a 9-month follow-up assessment (Azrin et al., 1996).

Outcomes have been positive in controlled trials exclusively involving substance-abusing youth (Azrin, Donohue, Besalel, Kogan, & Acierno, 1994), and dually diagnosed youth up to 6 months follow-up (Azrin, et al., 2001). Based on the results of their meta-analysis, Bender, Springer, and Kim (2006) concluded that FBT was one of only two treatments to produce large effect sizes for dually diagnosed adolescents in drug use, and internalizing and externalizing domains. In uncontrolled trials, FBT has been found to improve a wide array of severe problem behaviors affecting substance abusing mothers identified to neglect their children, such as psychiatric symptoms, family conflict, stress, child maltreatment potential, and domestic violence (Donohue et al., 2010; Donohue & Van Hasselt, 1999; Romero et al., 2010). Therefore, FBT is especially capable of being used to effectively treat a wide range of abused substances (and coexisting problems) that may occur in athletes. Such practice is likely to result in long-term gains, and

ultimately decrease administrative time identifying costly intensive services (e.g., residential settings).

Transportability of FBT

In treating athletes for substance abuse, it is important that evidence-based interventions are capable of being transportable to community-based mental health professionals. Along these lines, FBT is listed in national evidence-based clearinghouses, such as California's Evidence-based Clearinghouse for Child Welfare (CEBC) and SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP). These clearinghouses assist community-based treatment centers in determining appropriate evidence-based treatments, such as FBT. Along this vein, FBT received an anonymous score of 3.8 by Center for Substance Abuse Treatment (CSAT) reviewers (see NREPP) regarding its ability to be disseminated (range = 0–4; 4 = high score). Therefore, FBT is likely to be acceptable to sport psychologists and other mental health professionals working with athletes.

Description of Athlete-Specific Adjustments to FBT

In FBT, the individual referred to substance abuse treatment is typically considered the identified client, and significant others from the client's social ecology are incorporated into therapy to assist the client in accomplishing goals that are consistent with a substance-free, healthy lifestyle. Consistent with results found in Turrisi's prevention studies, our trials have indicated that parents are primary influences in athletes (Donohue et al., 2007a). Other significant others include romantic partners, teammates, close friends, and mentors/coaches. During the initial session with athletes, FBT providers assist athletes in brainstorming potential adult significant others to include in treatment planning. There is no limit to the number of significant others that may be invited by the athlete to assist in treatment. However, attempts should be made to engage coaches, peers, and especially parents as recommended and achieved by others (e.g., Hummer, LaBrie, & Lac, 2009; Turrisi et al., 2009). This approach has been previously proposed to assist athletes who feel disenfranchised from their sport environment (Gill, 2008).

Athletes often report problems adjusting to teammates and coaches, and "homesickness" due to extensive separations from their families (Donohue et al., 2007a). Therefore, inclusion of significant others in the treatment plan is likely to assist in therapy engagement and daily functioning of athletes. This may be especially true for international students who evidence limited access to their families. Therapeutic tasks of significant others vary, but generally include communicating desired actions, establishing contingencies, providing encouragement, generating solutions, discouraging substance use, and providing rewards and support for goal attainment. The extent to which significant others are involved in FBT varies based on need. Some sessions include multiple significant others, whereas other sessions include one or no significant others.

Appropriate significant others who are unable to attend therapy sessions because they are geographically separated from athletes for extended time periods should be encouraged to participate in therapy sessions utilizing videoconferencing and teleconferencing. Teleconferencing is probably more convenient. However,

video technologies are particularly helpful with the interpretation of nonverbal cues. It is recommended to use Health Insurance Portability and Accountability Act (HIPPA) compliant video conferencing communication technology that permits real-time significant other participation in FBT sessions. Significant others need a computer or wireless device with an Internet connection and audio connection through a computer or phone (webcam is optional). When participating significant others do not own such devices, they may be encouraged to access these devices at local libraries or the homes of close friends or family members offering privacy. Earphone sound devices may be used to enhance confidentiality.

In its application to athletes, therapeutic style and overarching procedures of FBT are consistent with the existing treatment manuals for substance abusing adolescents (Donohue & Azrin, 2011) and adults (Donohue & Allen, 2011) in the general population. However, in athletes, the FBT approach is adjusted in two important ways. First, components are incorporated into FBT protocols to improve treatment engagement and retention (i.e., orientation to sport psychology, cultural enlightenment). Second, FBT protocols are slightly modified to address issues that are specifically relevant to athletes. These modifications are extensively reviewed below.

As indicated earlier, FBT usually includes 12–20 outpatient treatment sessions, each ranging from 60 min to 2 hr depending on the population and context. FBT is usually implemented in the office. However, when treating athletes, we recommend that FBT sessions occur in situ whenever appropriate (e.g., training facilities, playing field). It is our experience that athletes often prefer these contexts, and having therapy sessions in nontraditional settings lessens potential violation of athletes' anonymity and may decrease stigma. When intervention components are implemented in the office, we highly recommend its walls should be decorated with athletic paraphernalia (e.g., jersey, banners, pennants, pictures of well-recognized athletes) and framed motivational posters. To foster a team-oriented environment it is recommended that staff wear polo shirts with their institution's insignia/motto, actively participate in (or at least attend) sport events, exercise regularly, refer to themselves as "performance coaches," read contemporaneous sport magazines, and read or listen to sport news. Indeed, it is important athletes perceive mental health professionals are knowledgeable in their sport (e.g., Weinstein, 1998).

FBT providers use checklists that prompt implementation of prescribed protocols, intervention handouts, and assignment sheets. Role-playing and behavioral rehearsal are used extensively to improve confidence, and prepare athletes for difficult situations. Realizing that persons who are addicted to substance abuse and their significant others are notorious for session nonattendance, FBT incorporates an "enlistment and retention strategy" that has proven to be effective in the improvement session attendance (Donohue, Azrin et al., 1998). This telephone orientation intervention has demonstrated 29% improved session attendance in a controlled trial (Donohue et al., 1998) is implemented 2 or 3 days before each of the initial two sessions. This orientation includes solicitation of presenting problems, empathy for expressed concerns, orientation to available therapists and treatments, reviewing potential benefits of program participation, generation of potential significant others, reviewing solutions to obstacles that may interfere with session attendance, reviewing directions to the clinic, and notification of available snacks and drinks upon attendance. This orientation component is important because it

assists in establishing rapport early on in the therapeutic process. The content of this interview may be implemented in-person, if feasible.

During the first session, performance coaches administer a semistructured orientation interview that has been shown in a controlled trial to improve athletes' perceptions of their need to pursue sport psychology (Donohue et al., 2004c). This interview requires only 10–15 min to administer. The interviewer defines sport psychology and mentions several generic benefits of participating in sport psychology interventions. The athlete is subsequently prompted to report how sport psychology could be beneficial, while the performance coach provides support and descriptive reinforcement for responses.

An orientation to FBT is provided to athletes and their significant others during the initial treatment session. In this orientation, the performance coach reviews the basic treatment structure and conceptual approach of FBT, the athlete's feelings about the referral, feedback relevant to pretreatment assessment findings, and solicits commitments from the athlete and participating significant others to follow established program guidelines (e.g., attend sessions, participate in session exercises and therapy assignments, engage in appropriate communication).

To address potential cultural issues, the Semi-Structured Interview for Ethnic Consideration in Therapy Scale (SSIETS; Donohue et al., 2006) is administered during the initial session. The SSIETS includes six items. Two items assess positive experiences about the interviewee's ethnic experiences utilizing a 7-point agreement scale (e.g., "My ethnic background is a big part of my life"), two items assess negative experiences about the interviewee's ethnic experiences (e.g., "I have experienced rude or offensive remarks due to my ethnic background"), and one item assesses the extent to which interviewees want to have their ethnic background addressed in therapy ("If I were pursuing therapy I would want my therapist to address my ethnic culture"). Results from an exploratory factor analysis involving 279 collegiate students of various ethnicities indicated two factors accounting for 71% of the variance (ethnic cultural importance, ethnic cultural problems). Internal consistency and convergent validity were determined to be good. Ethnic minority interviewees demonstrated significantly higher scores than did Caucasians, suggesting that this scale may be particularly applicable in ethnic minority populations. Donohue et al. conducted a subsequent controlled trial in a subsample of 151 of the students to examine clinical utility of a semistructured interview component (i.e., for each item interviewees are asked to disclose more about the rationale behind their answers, and interviewers show their interest and support through open-ended queries, affirmations, and empathic statements). Interviewees were queried about their basic demographic information and were subsequently instructed to evaluate the interviewers' performance. Interviewees were then randomly assigned to receive the SSIETS or a parallel semistructured interview specific to exercise/sport (e.g., "My exercise/sport is a big part of my life"). After participants completed their semistructured interviews, they were again instructed to evaluate the interviewers. Results indicated that both semistructured interviews enhanced the interviewees' perceptions of the interviewers' clinical skills and improved rapport. However, interviewers who administered the SSIETS were perceived as having greater knowledge and respect of the participants' ethnic culture. Therefore, the SSIETS is administered immediately after the FBT orientation session to assist in establishing rapport and determining cultural adjustments in therapy that may be

desired by athletes. To reduce stigma in athletes, the last question reads: "If I were pursuing a personal performance enhancement program I would want the professional to address my ethnic culture." Solicited cultural adaptations are incorporated into treatment planning.

Other innovative adjustments are recommended to occur within FBT to accommodate the unique culture of sport. Such adjustments are novel, highly adaptable to other populations (e.g., entertainers), and likely to improve outcomes (Martens et al., 2006). For instance, in "behavioral goals and rewards," athletes review a list of common antecedents (i.e., triggers) to substance use and comorbid problem behaviors. When triggers are endorsed, they are converted into standardized goals that are rewarded by significant others upon being accomplished. This intervention is particularly relevant to athletes because they are accustomed to setting goals and being rewarded for goal accomplishment. Indeed, many Olympic, collegiate, and youth athletes use goal setting to some extent (e.g., Weinberg, Burke, & Jackson, 1997). In athletes, goals often include those that are relevant to sport performance, safe sex, school, managing media or other stressors, career plans, relationships with coaches, and effectively managing separation from family. For significant others who live far away, contingent rewards may feasibly and innovatively include money orders, care packages, video-conferencing time, and visits from significant others.

Self-control involves teaching clients to identify and manage triggers to negative thoughts, images, feelings, and behaviors associated with drug and alcohol use and comorbid problem behaviors. Upon recognition of the respective problem behavior, image, or thought, the client is taught to engage in a sequence of actions that are relevant to effectively managing the trigger. The sequence includes thought stopping, diaphragmatic breathing/relaxation, problem solving, imagining perfect performance of desired behavior, and imagining telling a significant other about the perfect behavior. It is worth highlighting that some elite athletes often use thought stopping in their self-talk and imagery of performance (Gould, Flett, & Bean, 2009). In addition, elite athletes are motivated to learn to arousal management interventions (Donohue, Dickens et al., 2011). Self-control can be adjusted to address sport-specific problems, such as negative emotional reactions to mistakes made during competition, distractions from athletic practice assignments, failing to get up for class when the alarm sounds, binge drinking, and desire to have unprotected sex.

Stimulus control involves restructuring the environment to eliminate or manage stimuli that influence drug and alcohol use and comorbid problem behaviors. This treatment is flexible to permit the identification and subsequent review of people, places, and situations that increase and decrease the likelihood of substance use and other problem behaviors. Risk items traditionally include substance abusing friends, negative emotions (depression, anxiety, upset), boredom, arguments, and celebrations/parties. In athletes, generated risk items may additionally include nervousness before athletic events; pressure to have unprotected sex or binge drink; fatigue; injuries; disagreements with family or coaches; responding to media, staying out past curfew, or failure to complete school assignments.

Family relationship enhancement and communication skills training involves having clients and family and friends share things they like about one another, demonstrate their appreciation for one another, and learn to make positive requests in developing conflict resolution skills. In athletes, significant others are extended to include coaches and teammates. Relevant topics may include requesting condoms,

asking professors for academic assistance, speaking with a coach about a difference in opinion, or refusing vandalism of school property or sexual advancements. Positive team interactions (i.e., team cohesion) have been positively correlated with sport performance (Mach, Dolan, & Tzafrir, 2010). Therefore, athletes are likely to desire this intervention.

Financial management skills training focuses on teaching clients to increase their income and reduce their expenses. In athletes, this treatment is focused on methods of generating future stability, which has been identified as a significant problem in athletes, particularly athletes from impoverished backgrounds. Once implemented, skill-based interventions are usually reviewed in all remaining sessions to a progressively lesser extent, and involve therapy assignments between sessions to enhance generalization of skill acquisition.

Lastly, *motivational enhancement interventions* are used throughout FBT that have been shown to improve sport performance in controlled trials (e.g., Donohue et al., 2001; Miller & Donohue, 2003). These interventions may involve, for example, athletes choosing positive statements from generic lists (e.g., "I'm going to dominate today;" "I'm the definition of speed"), and subsequently learning to use these thoughts before important athletic events.

Conclusion

Athletes are at high risk to engage in dangerous misuse of illicit drugs and alcohol. However, there is a lack of evidence-supported substance abuse treatments that have been modified to address the unique culture of sport. Prevention programs have demonstrated efficacy in decreasing alcohol use in athletes, particularly when parents are involved. However, these programs were not designed to manage drug and alcohol abuse or dependence. Also problematic, mental health professionals are often not familiar with the unique culture of sport, and ignore evidence-supported treatment recommendations, such as the inclusion of significant others. Indeed, traditional methods in treating elite athletes for substance abuse have not been effective. Therefore, the refinement of substance abuse treatment programming in this population is imperative. We believe there are a few universal adjustments that need to be made to EBTs when treating athletes. First, much of the mental health nomenclature has become stigmatizing, and needs to be addressed. For instance, traditional position titles (e.g., therapist, mental health associate, counselor, clinic coordinator) could be more consistent with the sport culture (performance coaches, advisors, mentors). Clinical interviews and assessment measures could be focused on the extent to which behaviors and thoughts are strengths or functioning well rather than how these things are problematic. Goals that are aimed at ameliorating mental health issues or problems could be replaced with optimum performance goals. Clinics and counseling and psychological services can be referred to as performance centers. Second, ethnic background and sport culture need to be prescriptively interwoven into treatment protocols, and explicitly addressed throughout assessment and treatment. For instance, the SSIECTS may be used to establish positive conversation about the athlete's ethnic background. Sessions should occur in nontraditional settings where athletes may feel more comfortable, such as the training table, field or court or weight room. Rather than excluding significant others (e.g., coaches, family) in the intervention process, they should be thought of as

first options. These are contextual factors that have been promoted to some extent within sport psychology since its inception, but have certainly not been the norm in substance abuse practice. The athlete-specific version of FBT that was described here may offer a flexible systems-oriented substance abuse intervention capable of addressing comorbid healthcare concerns in athletes. However, this intervention and other interventions that have demonstrated success in reducing substance abuse in general populations need to be connected with therapeutic procedures espoused in sport psychology and validated in controlled trials. The National Institute on Drug Abuse recently funded a clinical trial (1R01DA031828) to definitively examine the effects of a sport-specific family behavior therapy for use in athletes. Empirical development of a culturally sensitive mental health care option that is tailored for athletes may lead to a paradigm shift in the treatment of high school, collegiate, and professional athletes.

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