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Examining Potential Iatrogenic Effects of Group Treatment for Incarcerated Adolescents

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EXAMINING POTENTIAL IATROGENIC EFFECTS OF GROUP TREATMENT FOR INCARCERATED ADOLESCENTS

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ABSTRACT

Rates of substance use among juvenile offenders are disproportionately high and frequently associated with deviant and criminal behavior (Mulvey, Schubert, & Chassin, 2010). Despite the prevalence of group-based treatment for adolescent substance abuse (Young, Dembo, & Henderson, 2007), some authors caution that aggregation of high-risk youth may increase rather than decrease antisocial behavior, thus producing iatrogenic effects. The current study sought to identify the extent to which various group processes as rated by counselors, observers, and adolescents mediate the relationship between type of group treatment received while incarcerated and adolescents' substance use and conduct problems following their release. Of the group processes investigated, only deviancy training (i.e., peers reinforcing each others' antisocial acts during group sessions) was differentially impacted by treatment type as rated by counselors and observers. Treatment differences were not found when using adolescent ratings, suggesting that adolescents may be less able to meaningfully assess their own behaviors during group treatment. Using multiple mediation, simple mediation, and moderated mediation analyses, no evidence was found in support of the claim that deviancy training during group treatment is related to poorer outcomes, or iatrogenic effects. This finding remained consistent across the three different perspectives (i.e., observers, counselors, adolescents) of deviancy training for all substance use outcomes examined at 3- and 6-months post-release. The indirect effect of treatment type was insignificant across all models examined. Findings indicate the effect of treatment on substance use outcomes post-release is not mediated by deviancy training, or any of the other group processes investigated.

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DEDICATION

For Louie

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CHAPTER 1: INTRODUCTION

Substance Use and Crime among Juvenile Offenders

Rates of substance use among juvenile offenders are disproportionately high. Among juvenile arrestees, rates of alcohol and other substance use are estimated to range from 42%-55% for males and 26-65% for females (Zhang, 2003). According to a national survey of American adolescents, lifetime prevalence rates of alcohol use range from 27%-66%, with rates for marijuana use ranging from 16%-44% (Miech, Johnston, O'Malley, Bachman, & Schulenberg, 2015). However, a study involving 1,300 serious juvenile offenders found lifetime prevalence rates for alcohol and marijuana use of 80% and 85%, respectively (Mulvey, Schubert & Chassin, 2010). Fifty-seven percent reported smoking marijuana in the past 6 months, averaging 1-3 times a week; 40% of participants reported consuming alcohol in the past 6 months, averaging 1-3 times a month; and 27% reported using other illicit substances an average of 1-2 times in the past 6 months (Mulvey et al., 2010). More alarmingly, approximately half of juvenile detainees have been found to meet criteria for a substance use disorder (Teplin, Abram, McClelland, Dulcan & Mericle, 2002). Gretton & Clift (2011) conducted a more recent study investigating the prevalence of mental health needs among incarcerated male and female youth in Canada. Substance abuse and dependence disorders were found to be the most prevalent mental disorder with 85.5% of males and 100% of females meeting criteria.

Nationwide, 1.3 million juvenile arrests were made in 2012 (Puzzanchera, 2014). Crimes committed by juvenile offenders are often associated with alcohol and

drug use (Mulvey et al., 2010; National Institute of Justice [NIJ], 1997; 2003). In fact, greater use of substances has been found to be associated with increased rates of offending, the severity of offenses, and the duration of delinquent behaviors (Greenwood, 1992; Lipsey & Derzon, 1998; Sealock, Gottfredson & Gallagher, 1997). Most alarming, alcohol use in particular has been found to be consistently and significantly associated with violent crime among this population (Lennings, Copeland & Howard, 2003).

Substance Abuse Treatment

In correctional facilities, substance abuse treatment is generally provided in group format and often includes components of cognitive-behavioral therapy and 12-step approaches (The Correctional Association of New York, 2011). According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2010), 93% of drug treatment programs in the United States offer some form of group counseling.

Evidence for Iatrogenic Effects

Despite its prevalence, contradictory findings regarding the efficacy of group treatment for adolescents have been reported. Group treatment has been found to produce unintended iatrogenic effects with adolescents at-risk for problem behavior (Dishion, McCord & Poulin, 1999; Dishion, Poulin & Burraston, 2001). In one study, high-risk adolescents who participated in cognitive-behavioral group intervention showed greater increases in self-reported smoking and teacher-rated delinquency at 3-year follow-up (Poulin, Dishion & Burraston, 2001). Youth reporting positive relationships with a peer counselor and those who were rejected by the group were less likely to increase in problem behavior. These findings suggest that substance use

is especially vulnerable to iatrogenic effects (Weiss, Caron, Ball, Tapp, Johnson, & Weisz, 2005) and appear most pronounced for adolescents reporting low levels of delinquency prior to group intervention. Paradoxically, a meta-analytic study of social skills training groups found homogenous groups comprised of adolescents high on conduct disorder produced worse outcomes than mixed groups comprised of adolescents with no/low and high levels of conduct disorder symptoms (Ang & Hughes, 2001).

One potential mechanism frequently raised as underlying iatrogenic effects is "deviancy training." Consistent with social learning theory (Bandura, 1977), deviancy training is thought to occur in response to peers providing positive external reinforcement for each others' antisocial acts through the use of verbal and nonverbal communication, thus increasing the likelihood of future deviant behaviors (Dishion et al., 1999). Using longitudinal research, Dishion et al. (1999) found that deviancy training that occurred within adolescent friendships was associated with increases in delinquency, substance use, violence, and maladjustment in adulthood. The authors also cite evidence from two experimental studies (the Adolescent Transition Program Study and the Cambridge-Somerville Youth Study Evaluation) in support of the conclusion that the older, more deviant youth are most susceptible to iatrogenic effects resulting from peer aggregation.

Arnold & Hughes (1999) conducted a literature review and found that group-based skills trainings may produce adverse effects for at-risk children and adolescents. The authors concluded that grouping deviant youth may be counter-productive, with iatrogenic effects outweighing the benefits participants may receive from treatment.

Recommendations for future research included conducting experimental studies utilizing random assignment of participants with externalizing disorder to homogenous versus mixed groups (containing both prosocial and at-risk youth), coding videotaped group sessions for the processes hypothesized to promote iatrogenic effects, and investigating factors that may moderate treatment outcomes, such as age.

Evidence Against Iatrogenic Effects

The hypotheses that group treatments produce iatrogenic effects and that deviancy training is the mechanism through which this occurs have been challenged by Weiss et al. (2005). Conceptually, the authors argue that deviancy training during treatment is likely limited when compared to adolescents' peer influences outside of treatment. Furthermore, Weiss et al. (2005) challenge several earlier studies (e.g., Dishion et al., 1999; Poulin et al., 2001) that reported evidence of iatrogenic effects on empirical grounds. For example, the authors note that the findings reported by Dishion et al. (1999) were largely based on marginally significant effects ($p < .10$) using a sample in which the majority of teens were not classified as high-risk youth. Lastly, using several of their own data sets on youth psychotherapy outcomes for externalizing conduct problems, Weiss et al. (2005) utilized meta-analytic techniques and concluded that no real evidence of iatrogenic effects was apparent.

Burleson, Kaminer & Dennis (2006) also examined evidence of iatrogenic effects of group treatment. Using data from 400 youth, the authors found that level of conduct disorder within treatment groups was not associated with rates of substance use, emotional problems, or behavioral problems. Youth's individual level of conduct disorder was not found to predict differential improvements in substance use

frequency, nor did youth low on conduct disorder fail to improve when exposed to group members high on conduct disorder. This contradicts Arnold and Hughes's (1999) hypothesis that youth low on measures of antisocial behavior may be most vulnerable to the effects of deviancy training. Instead, results from Burleson et al. (2005) suggest there may be a slight advantage for youth higher in conduct disorder to be placed in groups with lower levels of conduct disorder.

A review of randomized control trials conducted by Waldron & Kaminer (2004) determined that cognitive-behavioral group treatments are consistently associated with reductions in adolescent substance use. Moreover, group treatment has been found to be more cost-effective than and as efficacious as family-based and individual interventions in decreasing substance use and delinquency among adolescents measured at 4- and 7-month follow-up (French, Zavala, McCollister, Waldron, Turner, & Ozechowski, 2008). These contradictory findings further highlight the necessity of assessing group process in order to optimize group interventions and prevent, reduce, and control potential iatrogenic effects of aggregating high-risk individuals (Kaminer, 2005).

Purpose

Although there are reasons to suspect that undesirable iatrogenic effects can occur in group settings, group treatment remains attractive due to the economic and other practical reasons stated above. Therefore, it is important to identify a way of providing group treatment that minimizes the risk of iatrogenic consequences. The proposed study will utilize two types of group interventions to determine the effects of group process on the efficacy of treatments in reducing adolescent substance use and

conduct problems. This will be done using data already collected as part of a randomized control trial comparing two group treatments for substance abusing incarcerated adolescents (R01 DA-13375; PI-Stein).

Utilizing the measure developed by Dishion et al. (2001) and validated by Stein et al. (2014) to observe and assess group process, the purpose of the proposed study is to examine: 1) the extent to which two group interventions for adolescent substance use predict various components of group process; 2) the relationship between these group process variables and substance use and conduct problems at follow-up; and 3) the role of group process variables in mediating the relationship between treatment intervention received and substance use and conduct problems at follow-up. Due to the controversy that still exists within the literature regarding iatrogenic effects resulting from group treatment, no specific hypotheses regarding the strength or direction of results were generated.

Previous studies on iatrogenic effects analyzed data collected from predominately White community teen samples. The proposed study will utilize data collected from a diverse sample of incarcerated adolescents. Incarcerated teens may be most at risk for experiencing iatrogenic effects given that iatrogenic effects may be most pronounced among homogenous groups comprised only of antisocial youth (Dishion, McCord & Poulin, 1999) and the prevalence of group-based treatment in juvenile correctional facilities (Snyder & Sickmund, 2006). Further elucidating the impact of treatment type on group process variables may provide clinicians with important information regarding how to avoid the unintended iatrogenic effects of group-based treatment that have been reported.

CHAPTER 2: METHODOLOGY

Participants

Participants in the parent study were recruited from a state juvenile correctional facility in the Northeast. Immediately after adjudication, adolescents were identified as potential candidates for the parent study if they were between the ages of 14 and 19 years old, inclusive, and were sentenced to the facility for 4 to 12 months. Consent was obtained from parents/legal guardians and adolescents provided assent. Adolescents 18 years or older provided consent (n = 45). Parents/guardians and adolescents were informed that all information was confidential with the following exceptions: plans to escape, plans to hurt self or others, or reports of child abuse and/or neglect. Institutional Review Board approval was obtained for all procedures utilized in the parent study.

Adolescents were included in the study if they met any of the following substance use screening criteria: (a) in the year before incarceration they used marijuana or drank regularly (at least monthly) or binge drank ($\geq$5 standard drinks for boys, $\geq$4 for girls) at least once; (b) they used marijuana or drank in the 4 weeks before the offense for which they were incarcerated; or (c) they used marijuana or drank in the 4 weeks before they were incarcerated.

Of the 1,280 adolescents who were screened for the study, approximately 80% were eliminated due to not meeting age and sentence length criteria. A total of 205 teens met substance abuse screening criteria and completed the consent procedure. Of those 205 enrolled at baseline, 188 and 176 completed the first and second in-facility

follow-ups, respectively. Primary reasons for not completing these follow-ups were change in sentence length and lack of interest in completing study.

The baseline sample ($N = 205$) reported identifying with the following ethnic and racial backgrounds: 40% Hispanic, 39.5% African American, 35.1% White, 8.8% Native American, 3.9% Pacific Islander, 3.9% Asian American, and 7.3% self-identified as other. Most were boys (89.3%), the average age was 17.07 years ($SD = 1.04$), and the average number of times previously detained or incarcerated was 2.53 ($SD = 2.31$). In the previous year, 32.2% and 61.5% qualified for alcohol and marijuana dependence, respectively.

Assessments

The assessments consisted of 60- to 90-minute interviews conducted by a research assistant. Research assistants received approximately 20 hours of training and were observed by senior-level staff to ensure that all assessments were delivered appropriately. All research assistants received weekly group and individual supervision by a PhD-level staff member. The baseline assessment occurred shortly after the teen was adjudicated, with another assessment occurring after group treatment sessions 3 and 10. Follow-up assessments were conducted 3- and 6-months after the teen's release from the correctional facility.

Interventions

After completing the baseline assessment, adolescents were randomized to two sessions of individually delivered Motivational Interviewing (MI; Stein & Clair, 2010a) or two sessions of combined Meditation-Relaxation Training (RT; Stein & Clair, 2010b). Following MI, adolescents received 10 group-based sessions of

Cognitive Behavioral Therapy (CBT; see Stein, 2005), and similarly following RT, adolescents received 10 group-based sessions of Substance Education and Twelve-Step Introduction (SET; see Rose, Klein, Stein, Lebeau-Craven, & Justus, 2005). As individual treatments are not relevant to the current study, they will not be further discussed. The CBT curriculum, modeled after Sampl & Kadden, 2001, involved counselors working with adolescents to identify interpersonal and intrapersonal stressors, triggers, cravings, and urges related to their alcohol/marijuana use. Adolescents were also taught coping skills for managing stressful circumstances and maintaining reduced substance use. The SET curriculum was based on a psycho-educational model and the principles of Alcoholics/Narcotics Anonymous (AA/NA). In these group sessions, adolescents received information regarding the behavioral, medical, and psychological consequences of substance abuse to guide them to make more productive choices and maintain abstinence. In order to deliver treatments as intended, interventions were manualized and treatment fidelity was evaluated by adolescents and counselors at the end of every session and by supervisors on 31% of sessions. Fidelity procedures were modeled after those described by Sampl & Kadden (2001). Individual sessions generally lasted between 60- and 90- minutes with group sessions lasting about 75 minutes. The treatment groups were gender-segregated and rolling admission procedures were used.

Counselors received about 250 hours of manualized training to provide both intervention types (CBT and SET). A clinical psychologist provided weekly supervision to all counselors and reviewed all study intervention files. All sessions were recorded and coded until counselors demonstrated fidelity to treatment.

Thereafter a random selection of sessions was checked for fidelity every quarter and 42% of sessions rated by supervisors were double-coded for reliability. For more information on fidelity procedures and interventions see Stein et al., 2015.

Measures

Background Questionnaire. Socio-demographic information including gender, race, and age was recorded at baseline.

Center for Epidemiological Studies Depression Scale (CES-D). This measure was administered during the baseline assessment. Coefficient α values on the CES-D have ranged from .85-.90 for alcohol abusers. Furthermore, this scale has been found to be a reliable and valid measure for use with adolescents (Radloff, 1991).

Composite International Diagnostic Interview short-form (CIDI-SF). The CIDI-SF (Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1997) modules for alcohol and marijuana dependence were administered during the baseline assessment.

Group-Process (Individual Level) Questionnaire (GP-IL). This questionnaire consists of scales measuring Reinforcement for Deviance (6 items), Connection to Counselor (Yes/No rating, 1 item), Positive Group Involvement (4 items), Peer Rejection (3 items), and Counselor Praise for Positive Behavior (3 items). Items are rated on a 5-point Likert scale (0 = "No examples, was not observed" to 4 = "Multiple examples or one clear event [very true for teen]"). An average score (range 0 – 4) is calculated across items for each multi-item scale.

The original version of the GP-IL was completed only by observers who coded the first 15 minutes of session, the 15-minute break session, and the last 15 minutes of each session (Dishion et al., 2001). For the current study, observers coded group

sessions in ten-minute segments for each of three blocks at the beginning, middle, and end of a session. The adolescent and counselor versions of the form are identical to the observer version other than some wording modification for adolescents (Stein et al., 2014). Immediately following the 3rd and 10th group sessions, a research assistant (RA) assisted the adolescent in completing the form and the counselor independently completed his/her form.

Poor correspondence between observer and therapist ratings of treatment session activity has been found (Martino, Ball, Nich, Frankforter, & Carroll, 2009). In particular, therapists may overestimate their skills as compared to the estimates of observers (Carroll, Martino, & Rounsaville, 2010; Carroll et al., 2000; Martino et al., 2009). As a result, the observer version of the measure was of primary interest in the analyses; however, models were also examined using counselor and teen versions as these measures have recently demonstrated validity (Stein et al., 2014). Ratings of GP-IL after the 3rd and 10th group treatment sessions were used in order to establish temporal precedence for mediation analyses.

The Misbehaviors Questionnaire (MBQ). This 40-item questionnaire is based on the work of Dembo and colleagues (Dembo et al., 1992; Dembo, Williams, Schmeidler, & Wothke, 1993), Elliott, Ageton, Huizinga, Knowles, & Canter (1983), and on the symptoms of conduct and antisocial personality disorders as defined by the Diagnostic and Statistics Manual-IV-TR (American Psychiatric Association, 1994). At the baseline assessment, adolescents were asked the number of times they committed each crime or misbehavior during the 12 months prior to incarceration. Adolescents were also asked the number of times each act was committed while under

the influence of alcohol or to obtain alcohol; this procedure was repeated for marijuana. These behaviors ranged from truancy to forced sexual activity. At 3- and 6-month follow-up assessments, the time period covered was 3 months. Six scales assessed misbehaviors and included: Alcohol-related predatory aggression; alcohol-related stealing/delinquency; marijuana-related predatory aggression; marijuana-related stealing/delinquency; general predatory aggression, and general stealing/delinquency. The validity and reliability of these scales have been demonstrated (Reavy, Stein, Paiva, Quina & Rossi, 2012) and this measure has also been validated to measure conduct disorder (Reavy, Stein, Paiva & Quina, 2014). Given the significant positive relationship that has consistently been found between alcohol use and violent crime among juvenile offenders (Lennings, Copeland, & Howard, 2003), the Alcohol-related Predatory Aggression scale from the MBQ was entered into the models as an outcome variable.

Timeline Follow-back (TLFB). The Timeline Follow-back is a calendar-assisted approach for measuring participants' substance use over a specified period of time (Sobell & Sobell, 1992). The TLFB has been found to produce reliability coefficients ranging from .79 to .98 and to have strong content, criterion, and construct validity (Sobell, Maisto, Sobell, & Cooper, 1979). A 90-day TLFB measure was used to collect adolescents' alcohol and marijuana use at baseline and at the 3- and 6-month follow-up assessments. Three variables computed from the TLFB served as outcome measures, since preliminary analyses suggested they are impacted by treatment: (a) average number of drinks per week, (b) percentage of heavy drinking days, and (c) average number of marijuana uses per week. These variables are significantly

correlated but were explored separately in order to ascertain differential changes in the frequency and the quantity of adolescent substance use.

Analyses

Preliminary Analyses. To test for potential covariates, adolescents were compared across the two treatments groups on key variables including gender, ethnicity, race, age, number of days incarcerated, number of days in a controlled environment post-release, conduct disorder symptom count, depressive symptom count, substance disorder symptom count, and number of treatment sessions attended; variations were not expected due to random assignment. Similarly, these key variables were correlated with outcomes to determine covariates. Amount of missing data ranged from 8.3% to 14.1% and was due to attrition. As a result, adolescents assessed at the 6-month follow-up were compared to those who were not assessed at this follow-up on the key variables listed above. TLFB variables were not calculated for adolescents who reported having been in a controlled environment for 100% of days covered by the 6-month follow-up assessment; therefore, those teens were excluded from analyses ($n = 22$). One of the group process variables, connectedness to counselor, was dropped from analyses because the macros utilized are unable to accommodate dichotomous mediators. Additionally, this variable often contained very limited variance (e.g., 97.3% of adolescents reported feeling connected to their counselor at session 3).

Mediation Analysis. Statistical mediation analyses were used to test whether group processes, such as deviancy training, result in iatrogenic effects following group treatment. Mediation analysis allows one to determine the effect of a causal variable

(*X*) on proposed outcomes (*Y*) through one or more potential intervening variables (*M*). Path *a* signifies the effect of *X* on the proposed mediator *M*, while path *b* represents the effect of *M* on *Y* after partialling out the effect of *X*. The *indirect effect* of *X* on *Y* through mediator *i* (M_i) is the product of the two path estimates ($a \times b$) linking *X* to *Y* via the mediator. For all mediation analyses conducted, the percentile bootstrap confidence interval (CI) was used to make inferences regarding the significance of indirect effects; this test provides a good compromise in relation to power and Type I error rates and is preferred over other CIs (e.g., Sobel, bias-corrected bootstrap) in most cases (Fritz, Taylor, & MacKinnon; Hayes & Scharkow, 2013). The baseline level of the dependent variable was included as a covariate in all analyses. All analyses assumed a two-tailed alpha of .05, were conducted in SPSS version 22.0.0, and utilized listwise deletion. Because research in support of iatrogenic effects (e.g., Dishion et al., 1999; Poulin et al., 2001) has been criticized for basing their conclusions on marginally significant effects (Weiss et al., 2005), only significant ($p < .05$) findings were considered in the current study.

Multiple Mediator Models. Multiple mediator models were analyzed in order to explore whether type of group treatment received affects substance use outcomes post-release (i.e., average number of drinks per week, percentage of heavy drinking days, average number of marijuana uses per week, alcohol-related predatory aggression) indirectly through greater than one intervening group process variables (i.e., deviancy training, positive group involvement, peer rejection, and therapist-praised positive behavior) using methods described by Preacher & Hayes (2008) and the INDIRECT macro for SPSS. Treatment condition (CBT = 1; SET = 2) was

entered in each regression equation as the independent variable (X). The first set of models examined the mediated effect of each group process variable (M_i) as rated by counselors, observers, and adolescents after the 3rd group treatment session; this process was then repeated for each group process variable assessed after the 10th session. In order to determine the longevity of treatment effects, outcome data (Y) from the 3 and 6-month follow-up assessments were examined. As a result, a total of 48 multiple mediator models were analyzed. Figure 1 provides an illustration of a multiple mediation model and can be found in the Appendix. In a multiple mediator model, the effect of a particular mediator may be attenuated to the extent it correlates with other mediators in the model; this may compromise the significance of a specific indirect effect (Preacher & Hayes, 2008). As a result, the individual path estimates (a_i and b_i) in each model were examined in addition to the indirect effects. Patterns that emerged between X and M_i (a path) or M_i and Y (b path) were further examined in simple mediation models as secondary sensitivity analyses.

Simple Mediation Models. Figure 2, located in the Appendix, provides an illustration of a simple mediation model. Treatment condition (X) remained the independent variable in each model. Of the group processes investigated in the multiple mediator models, only one was found to be differentially impacted by treatment type and was further explored in simple mediation models. The identified group process variable (M) as rated by counselors, observers, and adolescents after the 3rd group treatment session was examined for mediation; this process was then repeated for the group process variable assessed after the 10th session. Again, the four

outcome variables (*Y*) were assessed at 3 and 6-months post-release. This resulted in a total of 48 simple mediation models.

Moderated Mediation Models. Because understanding processes of treatment is a relatively new and expanding field (Kazdin, 2007), moderated mediation was also explored. Informed by the patterns that emerged in the simple mediation models, the moderated mediation models utilized the session 3 mediator from all three perspectives (counselor, observer, adolescent), the session 10 mediator from the counselor perspective, and the four outcome variables at both follow-up periods. Two moderators (*W*) were selected (age and conduct disorder symptoms) based on findings reported in the literature described above. Moderated mediation models were conducted to estimate moderation of the effect of *X* on mediator *M* by each moderator variable *W* (first stage moderation; see Figures 3a and 3b). Additional moderated mediation models where conducted to estimate moderation of the effect of mediator *M* on outcome *Y* by each moderator variable *W* (second stage moderation; see Figures 4a and 4b). This resulted in 128 more models, which were conducted using methods described by Hayes (2015) and the PROCESS macro for SPSS. According to Hayes (2015), "[a] mediation process can be said to be moderated if the proposed moderator variable [*W*] has a nonzero weight in the function linking the indirect effect of X on Y through M to the moderator" (p. 7). To determine whether this weight was different from zero, the *index of moderated mediation* and its corresponding bootstrap confidence interval was examined for each model as a formal test of moderated mediation (Hayes, 2015). Only when this confidence interval does not include zero

can it be inferred that the relationship between the indirect effect and the moderator is not zero (i.e., moderated mediation; Hayes, 2015).

Power and Sample Size Considerations. The following criteria were used to determine the path effect sizes (e.g., a_1): 0.14 = small, 0.26 = small/medium, 0.39 = medium, and 0.59 = large (Cohen, 1988; Fritz & MacKinnon, 2007). The magnitude of the indirect effect does not fit with traditional effect size measures such as Cohen's d, R^2, or η^2 but is the primary effect of interest in mediation models (Preacher & Kelley, 2013). Because the indirect effect (e.g., a_1b_1) is the product of two effects, the following criteria have been recommended for use with a dichotomous independent variable: .02 = small, .15 = medium, and .40 = large (Kenny, 2014).

Due to the inconsistent results that have been reported on iatrogenic effects resulting from group treatment, and the dearth in the literature regarding the processes through which iatrogenic effects occur, little guidance concerning the magnitude of the *a* and *b* path effects is currently available. However, sample size estimates needed to achieve .80 power for various combinations of *ab* path effects is available from Fritz and MacKinnon (2007). Based on their simulation results, N = 163 was expected to provide enough power to detect *a* path and *b* path effect sizes of .26 or more. Additionally, Preacher, Rucker, and Hayes (2007) provide estimates of power for detecting moderated mediation effects, also known as conditional indirect effects, at varying effect magnitudes and sample sizes. Again, power was expected to be acceptable for all but a small conditional indirect effect. Although the N is already determined, bootstrap resampling was used to estimate all mediated and moderated

mediated effects, and this approach has been found to optimize the balance of Type I and Type II error rates (Fritz & MacKinnon, 2007).

CHAPTER 3: RESULTS

Preliminary Analyses

Significantly more adolescents in SET identified as Hispanic compared to adolescents in CBT ($t[197] = 2.39$, $p < .05$). No significant differences were found between treatment groups in regards to gender, race, age, number of days incarcerated, number of days in a controlled environment post-release, conduct disorder symptom count, depressive symptom count, or substance disorder symptom count, or number of treatment sessions attended. Adolescents assessed at the 6-month follow-up attended significantly more treatment sessions than adolescents who were not assessed at this follow-up period ($t[203] = 9.54$, $p < .01$). This likely limits generalizability, but also suggests adolescents assessed at the 6-month follow-up and included in analyses had the greatest cumulative exposure to each of the group process variables examined. This may be particularly relevant for investigating iatrogenic effects as youth in treatment longer have been found to be more susceptible to iatrogenic effects than matched controls (McCord, 1990). No significant differences were found between adolescents assessed at the 6-month follow-up period and those who were not in regards to gender, race, ethnicity, age, number of days incarcerated, number of days in a controlled environment post-release, conduct disorder symptom count, depressive symptom count, or substance disorder symptom count. Of the key variables listed above, number of alcohol dependence symptoms was moderately correlated with the alcohol use outcome variables ($r = .28$ - $.37$). However, because number of alcohol dependence symptoms was strongly correlated with the alcohol use variables at

baseline (r = .52 - .54), only the baseline level of the dependent variable was included as a covariate in subsequent analyses. None of the other key variables were at least moderately correlated with outcomes.

Descriptive statistics for all substance use variables are located in Table 1 with the correlations among them displayed in Table 2; both tables are located in the Appendix. All outcome variables and their corresponding baseline measurements were found to violate the assumption of normality and were log-transformed for use in further analyses.

Multiple Mediation Models

Counselor Session 3 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (c = -.070, SE_c = .078, p = .377) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.058, SE = .127, p = .651), positive group involvement (a_2 = -.042, SE = .088, p = .633), peer rejection (a_3 = .005, SE = .078, p = .946), or therapist-praised positive behavior (a_4 = -.040, SE = .061, p = .516). Additionally, none of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = .096, SE = .053, p = .072; positive group involvement: b_2 = -.091, SE = .075, p = .227; peer rejection: b_3 = -.075, SE = .086, p = .384; therapist-praised positive behavior: b_4 = -.048, SE = .108, p = .653). The indirect effects were also insignificant for deviancy training (a_1b_1 = .006, SE = .014), positive group involvement (a_2b_2 = .004, SE = .010), peer rejection (a_3b_3 = .000, SE = .009), and therapist-praised positive behavior (a_4b_4 = .002, SE = .008) as determined by the confidence interval for each effect including zero. Confidence intervals for all

indirect effects resulting from the Counselor Session 3 form and 3-month follow-up multiple mediation models are located in Table 3 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.043, SE_c = .071, p = .545) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.055, SE = .127, p = .666), positive group involvement (a_2 = -.042, SE = .088, p = .633), peer rejection (a_3 = .005, SE = .078, p = .949), or therapist-praised positive behavior (a_4 = -.042, SE = .061, p = .498). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = .092, SE = .048, p = .059; positive group involvement: b_2 = -.069, SE = .068, p = .315; peer rejection: b_3 = -.042, SE = .079, p = .599; therapist-praised positive behavior: b_4 = -.014, SE = .098, p = .890). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.005, SE = .013), positive group involvement (a_2b_2 = .003, SE = .009), peer rejection (a_3b_3 = .000, SE = .007), and therapist-praised positive behavior (a_4b_4 = .001, SE = .007) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.118, SE_c = .080, p = .143) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.044, SE = .128, p = .733), positive group involvement (a_2 = -.055, SE = .089, p = .537), peer rejection (a_3 = .004, SE = .078, p = .963), or therapist-praised positive behavior (a_4 = -.049, SE = .061, p = .423). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy

training: b_1 = .065, *SE* = .054, *p* = .235; positive group involvement: b_2 = -.048, *SE* = .077, *p* = .531; peer rejection: b_3 = .057, *SE* = .089, *p* = .520; therapist-praised positive behavior: b_4 = .088, *SE* = .112, *p* = .432). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.003, *SE* = .011), positive group involvement (a_2b_2 = .003, *SE* = .010), peer rejection (a_3b_3 = .000, *SE* = .009), and therapist-praised positive behavior (a_4b_4 = -.004, *SE* = .010) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (*c* = .062, SE_c = .062, *p* = .320) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.041, *SE* = .126, *p* = .746), positive group involvement (a_2 = -.041, *SE* = .089, *p* = .647), peer rejection (a_3 = .004, *SE* = .078, *p* = .962), or therapist-praised positive behavior (a_4 = -.027, *SE* = .061, *p* = .658). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = .044, *SE* = .042, *p* = .303; positive group involvement: b_2 = .062, *SE* = .059, *p* = .293; peer rejection: b_3 = .037 *SE* = .069, *p* = .595; therapist-praised positive behavior: b_4 = -.084, *SE* = .086, *p* = .330). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.002, *SE* = .008), positive group involvement (a_2b_2 = -.003, *SE* = .009), peer rejection (a_3b_3 = .000, *SE* = .007), and therapist-praised positive behavior (a_4b_4 = .002, *SE* = .007) as determined by the confidence interval for each effect including zero.

Observer Session 3 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (*c* = -.054, SE_c = .081, *p* =

.510) at 3-month follow-up. In this model, treatment type significantly related to deviancy training (a_1 = -.194, *SE* = .083, p = .021), but not to positive group involvement (a_2 = -.105, *SE* = .095, p = .267), peer rejection (a_3 = -.057, *SE* = .063, p = .365), or therapist-praised positive behavior (a_4 = -.079, *SE*= .065, p = .228). None of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = -.023, *SE* = .080, p = .779; positive group involvement: b_2 = .044, *SE* = .079, p = .578; peer rejection: b_3 = -.031, *SE* = .106, p = .773; therapist-praised positive behavior: b_4 = -.143, *SE* = .113, p = .208). The indirect effects were also insignificant for deviancy training (a_1b_1 = .004, *SE* = .013), positive group involvement (a_2b_2 = -.005, *SE* = .011), peer rejection (a_3b_3 = -.002, *SE* = .010), and therapist-praised positive behavior (a_4b_4 = .011, *SE* = .013) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Observer Session 3 form and 3-month follow-up multiple mediation models are located in Table 4 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.016, SE_c = .073, p = .829) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.195, *SE* = .083, p = .021), but not to positive group involvement (a_2 = -.103, *SE* = .095, p = .277), peer rejection (a_3 = -.058, *SE* = .063, p = .357), or therapist-praised positive behavior (a_4 = -.080, *SE* = .065, p = .226). None of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = -.047, *SE* = .072, p = .512; positive group involvement: b_2 = .052, *SE* = .071, p = .464; peer rejection: b_3 = .056, *SE* = .095, p = .559; therapist-praised positive behavior: b_4 = -.143, *SE* = .101, p =

.161). The indirect effects were also insignificant for deviancy training (a_1b_1 = .009, *SE* = .012), positive group involvement (a_2b_2 = -.005, *SE* = .012), peer rejection (a_3b_3 = -.003, *SE* = .009), and therapist-praised positive behavior (a_4b_4 = .011, *SE* = .012) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.115, SE_c = .084, p = .174) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.193, *SE* = .084, p = .023), but not to positive group involvement (a_2 = -.113, *SE* = .096, p = .242), peer rejection (a_3 = -.052, *SE* = .063, p = .404), or therapist-praised positive behavior (a_4 = -.086, *SE* = .066, p = .193). None of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .060, *SE* = .083, p = .943; positive group involvement: b_2 = .118, *SE* = .081, p = .149; peer rejection: b_3 = -.025, *SE* = .110, p = .819; therapist-praised positive behavior: b_4 = -.045, *SE* = .117, p = .701). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.001, *SE* = .015), positive group involvement (a_2b_2 = -.013, *SE* = .016), peer rejection (a_3b_3 = .001, *SE* = .011), and therapist-praised positive behavior (a_4b_4 = .004, *SE* = .013) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = .082, SE_c = .063, p = .196) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.190, *SE* = .084, p = .025), but not to positive group involvement (a_2 = -.104, *SE* = .095, p = .279), peer rejection (a_3 = -.054, *SE* = .063, p = .396), or therapist-praised positive behavior (a_4 = -.078, *SE* = .066, p = .239). None of the mediators were found to significantly predict

alcohol-related predatory aggression (deviancy training: b_1 = -.039, *SE* = .063, *p* = .533; positive group involvement: b_2 = .038, *SE* = .062, *p* = .545; peer rejection: b_3 = .044, *SE* = .083, *p* = .596; therapist-praised positive behavior: b_4 = -.009, *SE* = .088, *p* = .916). The indirect effects were also insignificant for deviancy training (a_1b_1 = .007, *SE* = .011), positive group involvement (a_2b_2 = -.004, *SE* = .009), peer rejection (a_3b_3 = -.002, *SE* = .008), and therapist-praised positive behavior (a_4b_4 = .001, *SE* = .008) as determined by the confidence interval for each effect including zero.

Adolescent Session 3 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (*c* = -.070, SE_c = .078, *p* = .377) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.016, *SE* = .130, *p* = .905), positive group involvement (a_2 = .042, *SE* = .120, *p* = .727), peer rejection (a_3 = -.083, *SE* = .066, *p* = .211), or therapist-praised positive behavior (a_4 = -.109, *SE* = .125, *p* = .386). Peer rejection (b_3 = -.335, *SE* = .092, $p < .001$) and therapist-praised behavior (b_4 = -.134, *SE* = .051, $p < .01$) were found to significantly predict heavy drinking days, but deviancy training (b_1 = .074, *SE* = .047, *p* = .116) and positive group involvement (b_2 = .013, *SE* = .055, *p* = .817) did not. The indirect effects were insignificant for deviancy training (a_1b_1 = -.001, *SE* = .012), positive group involvement (a_2b_2 = .001, *SE* = .007), peer rejection (a_3b_3 = .028, *SE*= .022), and therapist-praised positive behavior (a_4b_4 = .015, *SE* = .020) as determined by the confidence interval for each effect including zero. Confidence intervals for all specific indirect effects resulting from the Adolescent Session 3 form and 3-month follow-up multiple mediation models are located in Table 5 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.043, SE_c = .071, p = .545) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.013, SE = .131, p = .922), positive group involvement (a_2 = .046, SE = .120, p = .704), peer rejection (a_3 = -.080, SE = .066, p = .232), or therapist-praised positive behavior (a_4 = -.109, SE = .126, p = .386). Again, peer rejection (b_3 = -.270, SE = .083, p = .001) and therapist-praised behavior (b_4 = -.100, SE = .047, p = .033) were found to significantly predict average number of drinks per week, but deviancy training (b_1 = .069, SE = .042, p = .107) and positive group involvement (b_2 = -.043, SE = .120, p = .704) did not. The indirect effects were insignificant for deviancy training (a_1b_1 = -.001, SE = .011), positive group involvement (a_2b_2 = -.002, SE = .009), peer rejection (a_3b_3 = .022, SE = .017), and therapist-praised positive behavior (a_4b_4 = .011, SE = .016) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.118, SE_c = .080, p = .143) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.015, SE = .133, p = .913), positive group involvement (a_2 = .058, SE = .121, p = .629), peer rejection (a_3 = -.052, SE = .059, p = .379), or therapist-praised positive behavior (a_4 = -.112, SE = .126, p = .377). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .014, SE = .050, p = .785; positive group involvement: b_2 = -.012, SE= .059, p = .844; peer rejection: b_3 = -.030, SE = .113, p = .787; therapist-praised

positive behavior: b_4 = .062, *SE* = .055, p = .261). The indirect effects were also insignificant for deviancy training (a_1b_1 = .000, *SE* = .008), positive group involvement (a_2b_2 = -.001, *SE* = .009), peer rejection (a_3b_3 = .002, *SE* = .009), and therapist-praised positive behavior (a_4b_4 = -.007, *SE* = .012) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = .062, SE_c = .062, p = .320) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = .020, *SE* = .129, p = .878), positive group involvement (a_2 = .040, *SE* = .121, p = .738), peer rejection (a_3 = -.094, *SE* = .068, p = .169), or therapist-praised positive behavior (a_4 = -.077, *SE* = .125, p = .530). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = -.003, *SE* = .040, p = .935; positive group involvement: b_2 = -.056, *SE* = .046, p = .220; peer rejection: b_3 = .009, *SE* = .075, p = .906; therapist-praised positive behavior: b_4 = .008, *SE* = .043, p = .854). The indirect effects were also insignificant for deviancy training (a_1b_1 = .000, *SE* = .006), positive group involvement (a_2b_2 = -.002, *SE* = .010), peer rejection (a_3b_3 = -.001, *SE* = .007), and therapist-praised positive behavior (a_4b_4 = -.001, *SE* = .006) as determined by the confidence interval for each effect including zero.

Counselor Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.232, SE_c = .095, p = .015) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = .061, *SE* = .133, p = .646), positive

group involvement (a_2 = -.071, *SE* = .095, p = .460), peer rejection (a_3 = .120, *SE* = .076, p = .116), or therapist-praised positive behavior (a_4 = -.050, *SE* = .066, p = .453). Additionally, none of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = .120, *SE* = .064, p = .064; positive group involvement: b_2 = -.153, *SE* = .089, p = .088; peer rejection: b_3 = -.170, *SE* = .113, p = .134; therapist-praised positive behavior: b_4 = .053, *SE* = .128, p = .679). The indirect effects were also insignificant for deviancy training (a_1b_1 = .007, *SE* = .020), positive group involvement (a_2b_2 = .011, *SE* = .016), peer rejection (a_3b_3 = -.020, *SE* = .019), and therapist-praised positive behavior (a_4b_4 = -.003, *SE* = .010) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Counselor Session 3 form and 6-month follow-up multiple mediation models are located in Table 6 in the Appendix.

Treatment type was not significantly related to average number of drinks per week (c = -.138, SE_c = .084, p = .103) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = .064, *SE* = .133, p = .632), positive group involvement (a_2 = -.071, *SE* = .095, p = .460), peer rejection (a_3 = .120, *SE* = .076, p = .115), or therapist-praised positive behavior (a_4 = -.051, *SE* = .066, p = .442). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = .080, *SE* = .057, p = .168; positive group involvement: b_2 = -.122, *SE* = .080, p = .129; peer rejection: b_3 = -.155, *SE* = .101, p = .127; therapist-praised positive behavior: b_4 = .072, *SE* = .115, p = .535). The indirect effects were also insignificant for deviancy training (a_1b_1 = .005, *SE* = .015), positive group involvement (a_2b_2 = .009, *SE* = .014),

peer rejection (a_3b_3 = -.019, *SE* = .018), and therapist-praised positive behavior (a_4b_4 = -.004, *SE* = .010) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.001, SE_c = .091, p = .988) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = .088, *SE* = .135, p = .516), positive group involvement (a_2 = -.090, *SE* = .096, p = .351), peer rejection (a_3 = .114, *SE* = .077, p = .141), or therapist-praised positive behavior (a_4 = -.065, *SE* = .067, p = .329). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .045, *SE* = .063, p = .477; positive group involvement: b_2 = -.124, *SE* = .087, p = .157; peer rejection: b_3 = .003, *SE* = .110, p = .979; therapist-praised positive behavior: b_4 = .074, *SE* = .127, p = .561). The indirect effects were also insignificant for deviancy training (a_1b_1 = .004, *SE* = .013), positive group involvement (a_2b_2 = .011, *SE* = .019), peer rejection (a_3b_3 = .000, *SE* = .015), and therapist-praised positive behavior (a_4b_4 = -.005, *SE* = .012) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = -.019, SE_c = .029, p = .498) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = .075, *SE* = .134, p = .578), positive group involvement (a_2 = -.071, *SE* = .095, p = .458), peer rejection (a_3 = .118, *SE* = .076, p = .122), or therapist-praised positive behavior (a_4 = -.043, *SE* = .066, p = .523). Additionally, none of the mediators were found to

significantly predict alcohol-related predatory aggression (deviancy training: $b_1 = .022$, $SE = .020$, $p = .270$; positive group involvement: $b_2 = .014$, $SE = .027$, $p = .600$; peer rejection: $b_3 = .016$, $SE = .035$, $p = .646$; therapist-praised positive behavior: $b_4 = .006$, $SE = .040$, $p = .881$). The indirect effects were also insignificant for deviancy training ($a_1b_1 = .002$, $SE = .005$), positive group involvement ($a_2b_2 = -.001$, $SE = .004$), peer rejection ($a_3b_3 = .002$, $SE = .005$), and therapist-praised positive behavior ($a_4b_4 = .000$, $SE = .002$) as determined by the confidence interval for each effect including zero.

Observer Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days ($c = -.254$, $SE_c = .096$, $p = .009$) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training ($a_1 = -.187$, $SE = .094$, $p = .048$), but not to positive group involvement ($a_2 = -.117$, $SE = .100$, $p = .242$), peer rejection ($a_3 = -.041$, $SE = .068$, $p = .547$), or therapist-praised positive behavior ($a_4 = -.048$, $SE = .073$, $p = .512$). Therapist-praised behavior was found to significantly predict heavy drinking days ($b_4 = -.284$, $SE = .128$, $p = .029$), but the other mediators were not (deviancy training: $b_1 = .074$, $SE = .091$, $p = .418$; positive group involvement: $b_2 = .174$, $SE = .095$, $p = .070$; peer rejection: $b_3 = -.025$, $SE = .125$, $p = .841$). The indirect effects were insignificant for deviancy training ($a_1b_1 = -.014$, $SE = .025$), positive group involvement ($a_2b_2 = -.020$, $SE = .023$), peer rejection ($a_3b_3 = .001$, $SE = .011$), and therapist-praised positive behavior ($a_4b_4 = .014$, $SE = .023$) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect

effects resulting from the Observer Session 3 form and 6-month follow-up multiple mediation models are located in Table 7 in the Appendix.

Treatment type was not significantly related to average number of drinks per week (c = -.151, SE_c = .085, p = .079) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.188, SE = .094, p = .047), but not to positive group involvement (a_2 = -.115, SE = .100, p = .250), peer rejection (a_3 = -.041, SE = .068, p = .543), or therapist-praised positive behavior (a_4 = -.048, SE = .073, p = .509). Again, therapist-praised behavior was significantly related to average number of drinks per week (b_4 = -.270, SE = .114, p = .020), but the other mediators were not (deviancy training: b_1 = .049, SE = .081, p = .544; positive group involvement: b_2 = .143, SE = .085, p = .093; peer rejection: b_3 = -.064, SE = .111, p = .562). The indirect effects were insignificant for deviancy training (a_1b_1 = -.009, SE = .021), positive group involvement (a_2b_2 = -.016, SE = .020), peer rejection (a_3b_3 = .003, SE = .011), and therapist-praised positive behavior (a_4b_4 = .013, SE = .022) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = .001, SE_c = .096, p = .996) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.189, SE = .095, p = .049), but not to positive group involvement (a_2 = -.118, SE = .102, p = .249), peer rejection (a_3 = -.032, SE = .068, p = .642), or therapist-praised positive behavior (a_4 = -.054, SE = .074, p = .471). None of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .018, SE = .092, p = .846; positive group involvement: b_2 = .156, SE = .094, p = .101; peer rejection: b_3 =

-.009, *SE* = .126, *p* = .944; therapist-praised positive behavior: b_4 = -.099, *SE* = .128, *p* = .440). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.003, *SE* = .018), positive group involvement (a_2b_2 = -.019, *SE* = .022), peer rejection (a_3b_3 = .000, *SE* = .011), and therapist-praised positive behavior (a_4b_4 = .005, *SE* = .014) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (*c* = -.021, SE_c = .030, *p* = .477) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.186, *SE* = .094, *p* < .05), but not to positive group involvement (a_2 = -.116, *SE* = .100, *p* = .249), peer rejection (a_3 = -.040, *SE* = .068, *p* = .557), or therapist-praised positive behavior (a_4 = -.048, *SE* = .073, *p* = .519). None of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = .012, *SE* = .029, *p* = .643; positive group involvement: b_2 = .034, *SE* = .030, *p* = .260; peer rejection: b_3 = .001, *SE* = .039, *p* = .982; therapist-praised positive behavior: b_4 = -.024, *SE* = .040, *p* = .548). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.003, *SE* = .008), positive group involvement (a_2b_2 = -.004, *SE* = .005), peer rejection (a_3b_3 = .000, *SE* = .004), and therapist-praised positive behavior (a_4b_4 = .001, *SE* = .004) as determined by the confidence interval for each effect including zero.

Adolescent Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (*c* = -.232, SE_c = .095, *p* = .015) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.045, *SE* = .134, *p* = .740), positive group involvement (a_2 = -.015, *SE* = .132, *p* = .907), peer rejection (a_3 = -.072, *SE* =

.074, p = .332), or therapist-praised positive behavior (a_4 = -.060, SE = .136, p = .658). None of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = .047, SE = .063, p = .452; positive group involvement: b_2 = .020, SE = .069, p = .779; peer rejection: b_3 = -.216, SE = .114, p = .059; therapist-praised positive behavior: b_4 = -.060, SE = .065, p = .355). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.002, SE = .011), positive group involvement (a_2b_2 = .000, SE = .087), peer rejection (a_3b_3 = .016, SE = .019), and therapist-praised positive behavior (a_4b_4 = .004, SE = .012) as determined by the confidence interval for each effect including zero. Confidence intervals for all specific indirect effects resulting from the Adolescent Session 3 form and 6-month follow-up multiple mediation models are located in Table 8 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.138, SE_c = .084, p = .103) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.041, SE = .136, p = .763), positive group involvement (a_2 = -.014, SE = .132, p = .915), peer rejection (a_3 = -.069, SE = .074, p = .353), or therapist-praised positive behavior (a_4 = -.062, SE = .137, p = .650). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = .028, SE = .056, p = .614; positive group involvement: b_2 = -.027, SE = .062, p = .662; peer rejection: b_3 = -.173, SE = .101, p = .087; therapist-praised positive behavior: b_4 = -.027, SE = .057, p = .639). The indirect effects were insignificant for deviancy training (a_1b_1 = -.001, SE = .009), positive group involvement (a_2b_2 = .000, SE = .009), peer rejection (a_3b_3 = .012, SE = .016), and therapist-praised positive

behavior (a_4b_4 = .002, *SE* = .009) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.001, SE_c = .091, p = .988) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.034, *SE* = .140, p = .807), positive group involvement (a_2 = .008, *SE* = .134, p = .952), peer rejection (a_3 = -.024, *SE* = .065, p = .709), or therapist-praised positive behavior (a_4 = -.061, *SE* = .139, p = .661). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .023, *SE* = .060, p = .700; positive group involvement: b_2 = .005, *SE* = .069, p = .939; peer rejection: b_3 = -.184, *SE* = .128, p = .153; therapist-praised positive behavior: b_4 = .021, *SE*= .062, p = .731). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.001, *SE* = .010), positive group involvement (a_2b_2 = .000, *SE* = .010), peer rejection (a_3b_3 = .005, *SE* = .014), and therapist-praised positive behavior (a_4b_4 = -.001, *SE* = .009) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = -.019, SE_c = .029, p = .498) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.017, *SE* = .135, p = .901), positive group involvement (a_2 = -.016, *SE* = .132, p = .904), peer rejection (a_3 = -.080, *SE* = .076, p = .300), or therapist-praised positive behavior (a_4 = -.037, *SE* = .136, p = .789). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training:

b_1 = -.004, *SE* = .019, *p* = .857; positive group involvement: b_2 = -.003, *SE* = .021, *p* = .886; peer rejection: b_3 = .023, *SE* = .034, *p* = .503; therapist-praised positive behavior: b_4 = .006, *SE* = .020, *p* = .774). The indirect effects were also insignificant for deviancy training (a_1b_1 = .000, *SE* = .003), positive group involvement (a_2b_2 = .000, *SE* = .003), peer rejection (a_3b_3 = -.002, *SE* = .004), and therapist-praised positive behavior (a_4b_4 = .000, *SE* = .002) as determined by the confidence interval for each effect including zero.

Counselor Session 10 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (*c* = -.068, SE_c = .081, *p* = .401) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.340, *SE* = .138, *p* = .015), but not to positive group involvement (a_2 = .091, *SE* = .081, *p* = .268), peer rejection (a_3 = -.024, *SE* = .086, *p* = .779), or therapist-praised positive behavior (a_4 = -.042, *SE* = .055, *p* = .455). None of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = .038, *SE* = .054, *p* = .478; positive group involvement: b_2 = -.145, *SE* = .089, *p* = .103; peer rejection: b_3 = -.101, *SE* = .082, *p* = .221; therapist-praised positive behavior: b_4 = -.024, *SE* = .127, *p* = .848). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.013, *SE* = .020), positive group involvement (a_2b_2 = -.013, *SE* = .018), peer rejection (a_3b_3 = .002, *SE* = .012), and therapist-praised positive behavior (a_4b_4 = .001, *SE* = .008) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Counselor Session 10 form and 3-month follow-up multiple mediation models are located in Table 9 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.045, SE_c = .074, p = .544) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.334, SE = .140, p = .018), but not to positive group involvement (a_2 = .090, SE = .082, p = .274), peer rejection (a_3 = -.022, SE = .086, p = .799), or therapist-praised positive behavior (a_4 = -.042, SE = .055, p = .444). None of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = .025, SE = .048, p = .613; positive group involvement: b_2 = -.083, SE = .080, p = .301; peer rejection: b_3 = -.107, SE = .075, p = .158; therapist-praised positive behavior: b_4 = -.051, SE = .116, p = .661). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.008, SE = .018), positive group involvement (a_2b_2 = -.008, SE = .012), peer rejection (a_3b_3 = .002, SE = .012), and therapist-praised positive behavior (a_4b_4 = .002, SE = .008) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.118, SE_c = .083, p = .156) at 3-month follow-up. Again, treatment type was significantly related to deviancy training (a_1 = -.310, SE = .141, p = .029), but not to positive group involvement (a_2 = .080, SE = .082, p = .331), peer rejection (a_3 = -.004, SE = .085, p = .965), or therapist-praised positive behavior (a_4 = -.050, SE = .054, p = .363). None of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .082, SE = .053, p = .126; positive group involvement: b_2 = -.098, SE = .088, p = .264; peer rejection: b_3 = .060, SE = .085, p = .478; therapist-praised positive behavior: b_4 = .195, SE = .130, p = .136). The indirect effects were also insignificant for deviancy training (a_1b_1 =

-.025, *SE* = .022), positive group involvement (a_2b_2 = -.008, *SE* = .014), peer rejection (a_3b_3 = .000, *SE* = .009), and therapist-praised positive behavior (a_4b_4 = -.010, *SE* = .014) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (*c* = .026, SE_c = .028, *p* = .349) at 3-month follow-up. In this model, treatment type remained significantly related to deviancy training (a_1 = -.322, *SE* = .142, *p* = .025), but not to positive group involvement (a_2 = .091, *SE* = .082, *p* = .273), peer rejection (a_3 = -.039, *SE* = .086, *p* = .649), or therapist-praised positive behavior (a_4 = -.037, *SE* = .056, *p* = .503). None of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = .003, *SE* = .018, *p* = .854; positive group involvement: b_2 = .032, *SE* = .030, *p* = .287; peer rejection: b_3 = .007, *SE* = .029, *p* = .800; therapist-praised positive behavior: b_4 = -.058, *SE* = .044, *p* = .187). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.001, *SE* = .006), positive group involvement (a_2b_2 = .003, *SE* = .004), peer rejection (a_3b_3 = .000, *SE* = .003), and therapist-praised positive behavior (a_4b_4 = .002, *SE* = .004) as determined by the confidence interval for each effect including zero.

Observer Session 10 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (*c* = -.050, SE_c = .100, *p* = .619) at 3-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.105, *SE* = .107, *p* = .332), positive group involvement (a_2 = -.065, *SE* = .113, *p* = .564), peer rejection (a_3 = .050, *SE* = .078, *p* = .518), or therapist-praised positive behavior (a_4 = -.093, *SE*= .082, *p* = .259). Peer rejection was significantly related to percentage of heavy drinking days (b_3 = -.298, *SE* = .131, *p* =

.025), but the other mediators were not (deviancy training: $b_1 = .144$, $SE = .092$, $p = .121$; positive group involvement: $b_2 = -.030$, $SE = .092$, $p = .745$; therapist-praised behavior: $b_4 = -.013$, $SE = .121$, $p = .912$). The indirect effects were insignificant for deviancy training ($a_1b_1 = -.015$, $SE = .022$), positive group involvement ($a_2b_2 = .002$, $SE = .011$), peer rejection ($a_3b_3 = -.015$, $SE = .025$), and therapist-praised positive behavior ($a_4b_4 = .001$, $SE = .015$) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Observer Session 10 form and 3-month follow-up multiple mediation models are located in Table 10 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week ($c = .007$, $SE_c = .092$, $p = .939$) at 3-month follow-up. In this model, treatment type was not significantly related to deviancy training ($a_1 = -.105$, $SE = .108$, $p = .332$), positive group involvement ($a_2 = -.065$, $SE = .113$, $p = .568$), peer rejection ($a_3 = .048$, $SE = .077$, $p = .536$), or therapist-praised positive behavior ($a_4 = -.088$, $SE = .082$, $p = .283$). Again, peer rejection was significantly related to average number of drinks per week ($b_3 = -.249$, $SE = .121$, $p = .042$), but the other mediators were not (deviancy training: $b_1 = .104$, $SE = .086$, $p = .227$; positive group involvement: $b_2 = -.025$, $SE = .085$, $p = .765$; therapist-praised behavior: $b_4 = -.007$, $SE = .114$, $p = .948$). The indirect effects were also insignificant for deviancy training ($a_1b_1 = .011$, $SE = .018$), positive group involvement ($a_2b_2 = .002$, $SE = .011$), peer rejection ($a_3b_3 = -.012$, $SE = .021$), and therapist-praised positive behavior ($a_4b_4 = .001$, $SE = .015$) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = -.067, SE_c = .102, p = .512) at 3-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.093, SE = .109, p = .393), positive group involvement (a_2 = -.075, SE = .114, p = .511), peer rejection (a_3 = .068, SE = .077, p = .375), or therapist-praised positive behavior (a_4 = -.105, SE = .083, p = .211). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .046, SE = .096, p = .633; positive group involvement: b_2 = .056, SE = .095, p = .559; peer rejection: b_3 = -.064, SE = .138, p = .646; therapist-praised positive behavior: b_4 = .006, SE = .127, p = .963). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.004, SE = .019), positive group involvement (a_2b_2 = -.004, SE = .014), peer rejection (a_3b_3 = -.004, SE = .015), and therapist-praised positive behavior (a_4b_4 = .001, SE = .016) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = .080, SE_c = .082, p = .333) at 3-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.114, SE = .107, p = .288), positive group involvement (a_2 = -.075, SE = .113, p = .507), peer rejection (a_3 = .046, SE = .077, p = .549), or therapist-praised positive behavior (a_4 = -.099, SE = .082, p = .233). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = .060, SE = .078, p = .445; positive group involvement: b_2 = -.079, SE = .076, p = .305; peer rejection: b_3 = -.106, SE = .110, p = .337; therapist-praised positive behavior: b_4 = -.013, SE =

.102, p = .901). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.007, SE = .026), positive group involvement (a_2b_2 = .006, SE = .013), peer rejection (a_3b_3 = -.005, SE = .011), and therapist-praised positive behavior (a_4b_4 = .001, SE = .013) as determined by the confidence interval for each effect including zero.

Adolescent Session 10 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (c = -.083, SE_c = .080, p = .299) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.151, SE = .122, p = .218), positive group involvement (a_2 = .036, SE = .119, p = .761), peer rejection (a_3 = -.070, SE = .064, p = .280), or therapist-praised positive behavior (a_4 = .086, SE = .113, p = .449). Additionally, none of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = .066, SE = .056, p = .244; positive group involvement: b_2 = .006, SE= .063, p = .924; peer rejection: b_3 = -.188, SE = .101, p = .066; therapist-praised positive behavior: b_4 = -.071, SE = .068, p = .298). The indirect effects were insignificant for deviancy training (a_1b_1 = -.010, SE = .016), positive group involvement (a_2b_2 = .000, SE = .008), peer rejection (a_3b_3 = .013, SE= .019), and therapist-praised positive behavior (a_4b_4 = -.006, SE = .015) as determined by the confidence interval for each effect including zero. Confidence intervals for all specific indirect effects resulting from the Adolescent Session 10 form and 3-month follow-up multiple mediation models are located in Table 11 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.058, SE_c = .073, p = .427) at 3-month follow-up. In this model,

treatment type was not found to be significantly related to deviancy training (a_1 = -.151, *SE* = .122, *p* = .219), positive group involvement (a_2 = .040, *SE* = .118, *p* = .736), peer rejection (a_3 = -.068, *SE* = .065, *p* = .295), or therapist-praised positive behavior (a_4 = .086, *SE* = .114, *p* = .454). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = .039, *SE* = .051, *p* = .444; positive group involvement: b_2 = -.041, *SE*= .058, *p* = .481; peer rejection: b_3 = -.094, *SE* = .091, *p* = .303; therapist-praised positive behavior: b_4 = -.097, *SE* = .061, *p* = .115). The indirect effects were insignificant for deviancy training (a_1b_1 = -.006, *SE* = .013), positive group involvement (a_2b_2 = -.002, *SE* = .009), peer rejection (a_3b_3 = .006, *SE* = .011), and therapist-praised positive behavior (a_4b_4 = -.008, SE = .016) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (*c* = -.131, SE_c = .082, *p* = .112) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.152, *SE* = .123, *p* = .217), positive group involvement (a_2 = .045, *SE* = .120, *p* = .708), peer rejection (a_3 = -.073, *SE* = .066, *p* = .268), or therapist-praised positive behavior (a_4 = .086, *SE* = .115, *p* = .456). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = -.083, *SE* = .058, *p* = .156; positive group involvement: b_2 = -.054, *SE*= .065, *p* = .409; peer rejection: b_3 = .092, *SE* = .102, *p* = .369; therapist-praised positive behavior: b_4 = .004, *SE* = .070, *p* = .951). The indirect effects were also insignificant for deviancy training (a_1b_1 = .013, *SE* = .016), positive group involvement (a_2b_2 =

-.002, *SE* = .011), peer rejection (a_3b_3 = -.007, *SE* = .012), and therapist-praised positive behavior (a_4b_4 = .000, *SE* = .010) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (*c* = .060, SE_c = .064, *p* = .352) at 3-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.137, *SE* = .122, *p* = .262), positive group involvement (a_2 = .043, *SE* = .119, *p* = .719), peer rejection (a_3 = -.063, *SE* = .065, *p* = .338), or therapist-praised positive behavior (a_4 = .076, *SE* = .114, *p* = .505). Therapist-praised positive behavior was significantly related to alcohol-related predatory aggression (b_4 = -.109, *SE* = .054, *p* = .046), but the other mediators were not (deviancy training: b_1 = -.035, *SE* = .045, *p* = .435; positive group involvement: b_2 = .019, *SE* = .051, *p* = .703; peer rejection: b_3 = .030, *SE* = .080, *p* = .711). The indirect effects were insignificant for deviancy training (a_1b_1 = .005, *SE* = .011), positive group involvement (a_2b_2 = .001, *SE* = .006), peer rejection (a_3b_3 = -.002, *SE* = .013), and therapist-praised positive behavior (a_4b_4 = -.008, *SE* = .015) as determined by the confidence interval for each effect including zero.

Counselor Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (*c* = -.226, SE_c = .097, *p* = .022) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.295, *SE* = .148, *p* = .048), but not to positive group involvement (a_2 = .063, *SE* = .085, *p* = .461), peer rejection (a_3 = -.007, *SE* = .092, *p* = .939), or therapist-praised positive behavior (a_4 = -.089, *SE* = .061, *p* = .144). None of

the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: $b_1 = .056$, $SE = .066$, $p = .400$; positive group involvement: $b_2 = -.071$, $SE = .112$, $p = .529$; peer rejection: $b_3 = -.085$, $SE = .101$, $p = .399$; therapist-praised positive behavior: $b_4 = .103$, $SE = .151$, $p = .498$). The indirect effects were also insignificant for deviancy training ($a_1b_1 = -.017$, $SE = .026$), positive group involvement ($a_2b_2 = -.005$, $SE = .011$), peer rejection ($a_3b_3 = .001$, $SE = .013$), and therapist-praised positive behavior ($a_4b_4 = -.009$, $SE = .014$) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Counselor Session 10 form and 6-month follow-up multiple mediation models are located in Table 12 in the Appendix.

Treatment type was not significantly related to average number of drinks per week ($c = -.129$, $SE_c = .086$, $p = .135$) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training ($a_1 = -.291$, $SE = .149$, $p = .054$), positive group involvement ($a_2 = .065$, $SE = .086$, $p = .453$), peer rejection ($a_3 = -.006$, $SE = .092$, $p = .947$), or therapist-praised positive behavior ($a_4 = -.089$, $SE = .060$, $p = .143$). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: $b_1 = .027$, $SE = .057$, $p = .644$; positive group involvement: $b_2 = -.033$, $SE = .098$, $p = .733$; peer rejection: $b_3 = -.057$, $SE = .090$, $p = .524$; therapist-praised positive behavior: $b_4 = .058$, $SE = .134$, $p = .669$). The indirect effects were also insignificant for deviancy training ($a_1b_1 = -.008$, $SE = .022$), positive group involvement ($a_2b_2 = -.002$, $SE = .010$), peer rejection ($a_3b_3 = .000$, $SE = .011$), and therapist-praised positive behavior

(a_4b_4 = -.005, *SE* = .013) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = .011, SE_c = .093, p = .910) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.241, *SE* = .153, p = .119), positive group involvement (a_2 = .052, *SE* = .086, p = .553), peer rejection (a_3 = .011, *SE* = .091, p = .902), or therapist-praised positive behavior (a_4 = -.102, *SE* = .060, p = .091). Additionally, none of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = -.036, *SE* = .061, p = .558; positive group involvement: b_2 = -.082, *SE* = .104, p = .435; peer rejection: b_3 = .010, *SE* = .099, p = .923; therapist-praised positive behavior: b_4 = .195, *SE* = .146, p = .182). The indirect effects were also insignificant for deviancy training (a_1b_1 = .009, *SE* = .018), positive group involvement (a_2b_2 = -.004, *SE* = .012), peer rejection (a_3b_3 = .000, *SE* = .009), and therapist-praised positive behavior (a_4b_4 = -.020, *SE* = .019) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = -.021, SE_c = .029, p = .477) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.272, *SE* = .153, p = .078), positive group involvement (a_2 = .062, *SE* = .086, p = .474), peer rejection (a_3 = -.014, *SE* = .092, p = .882), or therapist-praised positive behavior (a_4 = -.086, *SE* = .061, p = .156). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training:

b_1 = .012, *SE* = .019, p = .528; positive group involvement: b_2 = .045, *SE* = .033, p = .175; peer rejection: b_3 = .042, *SE* = .031, p = .177; therapist-praised positive behavior: b_4 = -.037, *SE* = .045, p = .413). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.003, *SE* = .007), positive group involvement (a_2b_2 = .003, *SE* = .005), peer rejection (a_3b_3 = -.001, *SE* = .005), and therapist-praised positive behavior (a_4b_4 = .003, *SE* = .005) as determined by the confidence interval for each effect including zero.

Observer Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.240, SE_c = .116, p = .042) at 6-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.095, *SE* = .123, p = .443), positive group involvement (a_2 = -.071, *SE* = .122, p = .560), peer rejection (a_3 = .039, *SE* = .088, p = .654), or therapist-praised positive behavior (a_4 = -.058, *SE* = .093, p = .535). Additionally, none of the mediators were found to significantly predict percentage of heavy drinking days (deviancy training: b_1 = -.001, *SE* = .105, p = .997; positive group involvement: b_2 = .044, *SE* = .111, p = .691; peer rejection: b_3 = -.147, *SE* = .149, p = .328; therapist-praised positive behavior: b_4 = -.010, *SE* = .142, p = .943). The indirect effects were insignificant for deviancy training (a_1b_1 = .000, *SE* = .018), positive group involvement (a_2b_2 = -.003, *SE* = .016), peer rejection (a_3b_3 = -.006, *SE* = .021), and therapist-praised positive behavior (a_4b_4 = .001, *SE* = .016) as determined by the confidence interval for each effect including zero. Confidence intervals for all indirect effects resulting from the Observer Session 10 form and 6-month follow-up multiple mediation models are located in Table 13 located in the Appendix.

Treatment type was not significantly related to average number of drinks per week (c = -.129, SE_c = .104, p = .219) at 6-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.097, SE = .123, p = .431), positive group involvement (a_2 = -.076, SE = .123, p = .538), peer rejection (a_3 = .038, SE = .088, p = .670), or therapist-praised positive behavior (a_4 = -.058, SE = .093, p = .533). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = -.003, SE = .095, p = .973; positive group involvement: b_2 = .062, SE = .099, p = .535; peer rejection: b_3 = -.081, SE = .134, p = .546; therapist-praised positive behavior: b_4 = .001, SE = .129, p = .994). The indirect effects were insignificant for deviancy training (a_1b_1 = .000, SE = .017), positive group involvement (a_2b_2 = -.005, SE = .015), peer rejection (a_3b_3 = -.003, SE = .017), and therapist-praised positive behavior (a_4b_4 = .000, SE = .014) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = .063, SE_c = .114, p = .585) at 6-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.074, SE = .126, p = .558), positive group involvement (a_2 = -.102, SE = .125, p = .419), peer rejection (a_3 = .075, SE = .088, p = .394), or therapist-praised positive behavior (a_4 = -.072, SE = .096, p = .455). None of the mediators were found to significantly predict average number of marijuana uses per week (deviancy training: b_1 = .032, SE = .100, p = .750; positive group involvement: b_2 = .169, SE = .106, p = .114; peer rejection: b_3 = -.051, SE = .145, p = .725; therapist-praised positive behavior: b_4 = .055, SE = .136, p = .687). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.002,

SE = .023), positive group involvement (a_2b_2 = -.017, *SE* = .026), peer rejection (a_3b_3 = -.004, *SE* = .019), and therapist-praised positive behavior (a_4b_4 = -.004, *SE* = .017) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (*c* = -.042, SE_c = .040, *p* = .293) at 6-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.107, *SE* = .122, *p* = 385), positive group involvement (a_2 = -.084, *SE* = .123, *p* = .494), peer rejection (a_3 = .040, *SE* = .088, *p* = .653), or therapist-praised positive behavior (a_4 = -.067, *SE* = .093, *p* = .477). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = .008, *SE* = .037, *p* = .830; positive group involvement: b_2 = -.008, *SE* = .038, *p* = .832; peer rejection: b_3 = .030, *SE* = .051, *p* = .558; therapist-praised positive behavior: b_4 = -.019, *SE* = .049, *p* = .702). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.001, *SE* = .009), positive group involvement (a_2b_2 = .001, *SE* = .005), peer rejection (a_3b_3 = .001, *SE* = .006), and therapist-praised positive behavior (a_4b_4 = .001, *SE* = .006) as determined by the confidence interval for each effect including zero.

Adolescent Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (*c* = -.226, SE_c = .097, *p* = .022) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.134, *SE* = .132, *p* = .310), positive group involvement (a_2 = .008, *SE* = .124, *p* = .949), peer rejection (a_3 = -.017, *SE* = .071, *p* = .812), or therapist-praised positive behavior (a_4 = .127, *SE* = .118, *p* = .284). None of the mediators were found to significantly predict percentage of heavy

drinking days (deviancy training: b_1 = .060, *SE* = .068, *p* = .383; positive group involvement: b_2 = -.064, *SE* = .077, *p* = .408; peer rejection: b_3 = -.118, *SE* = .123, *p* = .337; therapist-praised positive behavior: b_4 = .078, *SE* = .083, *p* = .350). The indirect effects were also insignificant for deviancy training (a_1b_1 = -.008, *SE* = .016), positive group involvement (a_2b_2 = -.001, *SE* = .013), peer rejection (a_3b_3 = .002, *SE* = .016), and therapist-praised positive behavior (a_4b_4 = .010, *SE* = .016) as determined by the confidence interval for each effect including zero. Confidence intervals for all specific indirect effects resulting from the Adolescent Session 10 form and 6-month follow-up multiple mediation models are located in Table 14 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (*c* = -.129, SE_c = .086, *p* = .135) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.134, *SE* = .132, *p* = .309), positive group involvement (a_2 = .008, *SE* = .123, *p* = .945), peer rejection (a_3 = -.016, *SE* = .071, *p* = .826), or therapist-praised positive behavior (a_4 = .125, *SE* = .118, *p* = .293). Additionally, none of the mediators were found to significantly predict average number of drinks per week (deviancy training: b_1 = -.018, *SE* = .061, *p* = .765; positive group involvement: b_2 = -.060, *SE* = .069, *p* = .389; peer rejection: b_3 = -.106, *SE* = .108, *p* = .330; therapist-praised positive behavior: b_4 = .017, *SE* = .073, *p* = .815). The indirect effects were insignificant for deviancy training (a_1b_1 = .002, *SE* = .012), positive group involvement (a_2b_2 = -.001, *SE* = .011), peer rejection (a_3b_3 = .002, *SE* = .015), and therapist-praised positive behavior (a_4b_4 = .002, *SE* = .012) as determined by the confidence interval for each effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (c = .011, SE_c = .093, p = .910) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.128, SE = .133, p = .339), positive group involvement (a_2 = .039, SE = .125, p = .754), peer rejection (a_3 = -.013, SE = .073, p = .857), or therapist-praised positive behavior (a_4 = .115, SE = .120, p = .339). Deviancy training did significantly predict average number of marijuana uses per week (b_1 = -.133, SE = .065, p = .043), but the other mediators did not (positive group involvement: b_2 = .012, SE = .074, p = .867; peer rejection: b_3 = .054, SE = .115, p = .636; therapist-praised positive behavior: b_4 = -.036, SE= .078, p = .646). The indirect effects were insignificant for deviancy training (a_1b_1 = .017, SE = .020), positive group involvement (a_2b_2 = .001, SE = .009), peer rejection (a_3b_3 = -.001, SE = .010), and therapist-praised positive behavior (a_4b_4 = -.004, SE = .014) as determined by the confidence interval for each effect including zero.

Lastly, treatment type was not significantly related to alcohol-related predatory aggression (c = -.021, SE_c = .029, p = .478) at 6-month follow-up. In this model, treatment type was not found to be significantly related to deviancy training (a_1 = -.129, SE = .132, p = .327), positive group involvement (a_2 = .020, SE = .124, p = .874), peer rejection (a_3 = -.012, SE = .071, p = .865), or therapist-praised positive behavior (a_4 = .118, SE = .118, p = .319). Additionally, none of the mediators were found to significantly predict alcohol-related predatory aggression (deviancy training: b_1 = -.016, SE = .021, p = .447; positive group involvement: b_2 = -.012, SE = .024, p = .613; peer rejection: b_3 = .026, SE = .037, p = .477; therapist-praised positive behavior:

b_4 = .001, *SE* = .025, *p* = .981). The indirect effects were also insignificant for deviancy training (a_1b_1 = .002, *SE* = .005), positive group involvement (a_2b_2 = .000, *SE* = .003), peer rejection (a_3b_3 = .000, *SE* = .006), and therapist-praised positive behavior (a_4b_4 = .000, *SE* = .005) as determined by the confidence interval for each effect including zero.

Summary. Treatment condition (CBT vs. SET) was found to differentially predict only one of the potential mediators examined as assessed by counselors and observers. More specifically, CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. This relationship was found again at the six-month follow-up period for all four outcome variables as assessed by observers at session 3 and for percentage of heavy drinking days as assessed by counselors at session 10. Less consistent support was found for the relationships between group process variables and substance use outcomes at follow-up. Irrespective of treatment type, increased rates of peer rejection and therapist-praised positive behavior as rated by adolescents at session 3 were associated with lower percentage of heavy drinking days and lower average number of drinks per week at 3-month follow-up. The negative relationships between peer rejection and these alcohol-use outcomes were also found as assessed by observers at session 10; similarly, negative relationships were found between therapist-praised positive behavior and percentage of heavy drinking days and average number of drinks per week at 6-month follow-up as assessed by observers at session 3. Therapist-praised positive behavior was negatively associated with alcohol-related predatory aggression

at 3-month follow-up and deviancy training was negatively associated with average number of marijuana uses per week at 6-month follow-up as assessed by adolescents at session 10. The indirect effect of treatment type was insignificant across all models examined.

In a multiple mediator model, the significance of a specific indirect effect may be compromised as a result of a particular mediator's effect being attenuated by other mediators in the model (Preacher & Hayes, 2008). Because deviancy training was differentially impacted by treatment type and carries the most theoretical support, it was further examined in simple mediation models. Directions for future research based on the findings between peer rejection, therapist-praised positive behavior, and the alcohol-use related outcomes are outlined in the Discussion section.

Simple Mediation Models

Counselor Session 3 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (c = -.070, SE_c = .078, p = .377) at 3-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.058, SE = .127, p = .651). Similarly, deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .088, SE = .048, p = .070). The indirect effect remained insignificant (a_1b_1 = -.005, SE = .013) as determined by the confidence interval for the effect including zero. Confidence intervals for all indirect effects resulting from the Counselor Session 3 form and 3-month follow-up single mediation models are located in Table 15 in the Appendix.

Treatment type was not significantly related to average number of drinks per week (c = -.043, SE_c = .071, p = .545) at 3-month follow-up. In this model, treatment

type was not significantly related to deviancy training (a_1 = -.055, *SE* = .127, *p* = .666), but deviancy training was found to significantly predict average number of drinks per week (b_1 = .088, *SE* = .044, *p* = .044). However, the indirect effect remained insignificant (a_1b_1 = -.005, *SE* = .013) as determined by the confidence interval for the effect including zero.

No significant results were found in regards to average number of marijuana uses per week (*c* = -.118, SE_c = .080, *p* = .143; a_1 = -.044, *SE* = .128, *p* = .733; b_1 = .081, *SE* = .049, *p* = .105; a_1b_1 = -.004, *SE* = .012) or alcohol-related predatory aggression (*c* = .062, SE_c = .062, *p* = .320; a_1 = -.041, *SE* = .128, *p* = .746; b_1 = .050, *SE* = .038, *p* = .188; a_1b_1 = -.002, *SE* = .008).

Observer Session 3 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (*c* = -.054, SE_c = .081, *p* = .510) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.194, *SE* = .083, *p* = .021), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = -.019, *SE* = .079, *p* = .810). The indirect effect was insignificant (a_1b_1 = .004, *SE* = .013) as determined by the confidence interval for the effect including zero. Confidence intervals for all indirect effects resulting from the Observer Session 3 form and 3-month follow-up single mediation models are located in Table 16 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (*c* = -.016, SE_c = .073, *p* = .829) at 3-month follow-up. Again, treatment type was significantly related to deviancy training (a_1 = -.195, *SE* = .083, *p* = .021), but deviancy training was not found to significantly predict average number of

drinks per week (b_1 = -.041, *SE* = .071, *p* = .564). The indirect effect remained insignificant (a_1b_1 = .008, *SE* = .011) as determined by the confidence interval for the effect including zero.

Treatment type was not significantly related to average number of marijuana uses per week (*c* = -.115, SE_c = .084, *p* = .174), but did predict deviancy training (a_1 = -.193, *SE* = .084, *p* = .023). However, deviancy training was not significantly related to average number of marijuana uses per week (b_1 = .026, *SE* = .081, *p* = .748) and the indirect effect of treatment remained insignificant (a_1b_1 = -.005, *SE* = .014).

Similar results were found for alcohol-related predatory aggression. Treatment type was not significantly related to the dependent variable (*c* = .082, SE_c = .063, *p* = .196) but did predict deviancy training (a_1 = -.190, *SE* = .084, *p* = .025). Deviancy training was not related to alcohol-related predatory aggression (b_1 = -.030, *SE* = .061, *p* = .623) and the indirect effect of treatment type remained insignificant (a_1b_1 = .006, *SE* = .010).

Adolescent Session 3 form and 3-month follow-up. No significant results were found in regards to percentage of heavy drinking days (*c* = -.070, SE_c = .078, *p* = .377; a_1 = -.016, *SE* = .130, *p* = .905; b_1 = .061, *SE* = .048, *p* = .203; a_1b_1 = -.001, *SE* = .011), average number of drinks per week (*c* = -.043, SE_c = .071, *p* = .545; a_1 = -.013, *SE* = .131, *p* = .922; b_1 = .067, *SE* = .043, *p* = .118; a_1b_1 = -.001, *SE* = .011), average number of marijuana uses per week (*c* = -.118, SE_c = .080, *p* = .143; a_1 = -.015, *SE* = .133, *p* = .913; b_1 = .006, *SE* = .048, *p* = .898; a_1b_1 = .000, *SE* = .007), or alcohol-related predatory aggression (*c* = .062, SE_c = .062, *p* = .320; a_1 = .020, *SE* = .129, *p* = .878; b_1 = .007, *SE* = .038, *p* = .845; a_1b_1 = .000, *SE* = .005). Confidence intervals for

all indirect effects resulting from the Adolescent Session 3 form and 3-month follow-up single mediation models are located in Table 17 in the Appendix.

Counselor Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.232, SE_c = .095, p = .015) at 6-month follow-up. However, treatment type was not significantly related to deviancy training (a_1 = .061, SE = .133, p = .646), nor was deviancy training found to significantly predict percentage of heavy drinking days (b_1 = .100, SE = .060, p = .099). The indirect effect of treatment type was insignificant (a_1b_1 = .006, SE = .019). Confidence intervals for all indirect effects resulting from the Counselor Session 3 form and 6-month follow-up single mediation models are located in Table 18 in the Appendix.

No significant results were found in regards to average number of drinks per week (c = -.138, SE_c = .084, p = .103; a_1 = .064, SE = .133, p = .632; b_1 = .059, SE = .054, p = .278; a_1b_1 = -.004, SE = .012), average number of marijuana uses per week (c = -.001, SE_c = .091, p = .988; a_1 = .088, SE = .135, p = .516; b_1 = .053, SE = .059, p = .369; a_1b_1 = .005, SE = .013) or alcohol-related predatory aggression (c = -.045, SE_c = .066, p = .498; a_1 = .075, SE = .134, p = .578; b_1 = .054, SE = .042, p = .206; a_1b_1 = .004, SE = .011).

Observer Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.254, SE_c = .096, p = .009) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.187, SE = .094, p = .048), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .093, SE = .091,

p = .307). The indirect effect of treatment type was insignificant (a_1b_1 = -.017, SE = .024). Confidence intervals for all indirect effects resulting from the Observer Session 3 form and 6-month follow-up single mediation models are located in Table 19 in the Appendix.

Treatment type was not significantly related to average number of drinks per week (c = -.151, SE_c = .085, p = .079) at 6-month follow-up. Again, treatment type was significantly related to deviancy training (a_1 = -.188, SE = .094, p = .047), but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .062, SE = .080, p = .445). The indirect effect remained insignificant (a_1b_1 = -.012, SE = .020) as determined by the confidence interval for the effect including zero.

Similarly, treatment type was not significantly related to average number of marijuana uses per week (c = .001, SE_c = .096, p = .996), but did predict deviancy training (a_1 = -.189, SE = .095, p = .049). However, deviancy training was not significantly related to average number of marijuana uses per week (b_1 = .044, SE = .090, p = .624) and the indirect effect of treatment remained insignificant (a_1b_1 = -.008, SE = .018).

Treatment type was not significantly related to alcohol-related predatory aggression (c = -.049, SE_c = .069, p = .477) at 6-month follow-up, but did predict deviancy training (a_1 = -.186, SE = .094, $p < .05$). Deviancy training was not related to alcohol-related predatory aggression (b_1 = .043, SE = .065, p = .507) and the indirect effect of treatment type remained insignificant (a_1b_1 = -.008, SE = .019).

Adolescent Session 3 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.232, SE_c = .095, p = .015) at 6-month follow-up. However, treatment type was not significantly related to deviancy training (a_1 = -.045, SE = .134, p = .740), nor was deviancy training found to significantly predict percentage of heavy drinking days (b_1 = .029, SE = .061, p = .636). The indirect effect of treatment type was insignificant (a_1b_1 = -.001, SE = .010). Confidence intervals for all indirect effects resulting from the Adolescent Session 3 form and 6-month follow-up single mediation models are located in Table 20 in the Appendix.

No significant results were found in regards to average number of drinks per week (c = -.138, SE_c = .084, p = .103; a_1 = -.041, SE = .136, p = .763; b_1 = .021, SE = .053, p = .699; a_1b_1 = -.001, SE = .009), average number of marijuana uses per week (c = -.001, SE_c = .091, p = .988; a_1 = -.034, SE = .140, p = .807; b_1 = .001, SE = .057, p = .980; a_1b_1 = .000, SE = .008), or alcohol-related predatory aggression (c = -.045, SE_c = .066, p = .498; a_1 = -.017, SE = .135, p = .901; b_1 = -.002, SE = .042, p = .966; a_1b_1 = .000, SE = .005).

Counselor Session 10 form and 3-month follow-up. Treatment type was not significantly related to percentage of heavy drinking days (c = -.068, SE_c = .081, p = .401) at 3-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.340, SE = .138, p = .015), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .043, SE = .047, p = .368). The indirect effect of treatment type was insignificant (a_1b_1 = -.014, SE = .019) as determined by the confidence interval for the effect including zero.

Confidence intervals for all indirect effects resulting from the Counselor Session 10 form and 3-month follow-up single mediation models are located in Table 21 in the Appendix.

Similarly, treatment type was not significantly related to average number of drinks per week (c = -.045, SE_c = .074, p = .544) at 3-month follow-up. Again, treatment type was significantly related to deviancy training (a_1 = -.334, SE = .140, p = .018), but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .016, SE = .042, p = .706). The indirect effect remained insignificant (a_1b_1 = -.005, SE = .016).

Treatment type was not significantly related to average number of marijuana uses per week (c = -.118, SE_c = .083, p = .156). However, treatment type was significantly related to deviancy training (a_1 = -.310, SE = .141, p = .029) and deviancy training was found to significantly predict average number of marijuana uses per week (b_1 = .095, SE = .047, p = .042). The indirect effect of treatment type remained insignificant (a_1b_1 = -.030, SE = .022).

Treatment type was not significantly related to alcohol-related predatory aggression (c = .060, SE_c = .063, p = .349) at 3-month follow-up. Again, treatment type was significantly related to deviancy training (a_1 = -.322, SE = .142, p = .025), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .013, SE = .036, p = .723). The indirect effect was insignificant (a_1b_1 = -.004, SE = .013).

Observer Session 10 form and 3-month follow-up. No significant results were found in regards to percentage of heavy drinking days (c = -.050, SE_c = .010, p =

.619; a_1 = -.105, *SE* = .107, *p* = .332; b_1 = .087, *SE* = .089, *p* = .329; a_1b_1 = -.009, *SE* = .018), average number of drinks per week (*c* = .007, SE_c = .092, *p* = .949; a_1 = -.105, *SE* = .108, *p* = .332; b_1 = .055, *SE* = .082, *p* = .502; a_1b_1 = -.006, *SE* = .016), average number of marijuana uses per week (*c* = -.067, SE_c = .102, *p* = .512; a_1 = -.093, *SE* = .109, *p* = .393; b_1 = .025, *SE* = .091, *p* = .780; a_1b_1 = -.002, *SE* = .017), or alcohol-related predatory aggression (*c* = .080, SE_c = .082, *p* = .334; a_1 = -.114, *SE* = .107, *p* = .288; b_1 = .049, *SE* = .074, *p* = .509; a_1b_1 = -.006, *SE* = .026) at 3-month follow-up. Confidence intervals for all indirect effects resulting from the Observer Session 10 form and 3-month follow-up single mediation models are located in Table 22 in the Appendix.

Adolescent Session 10 form and 3-month follow-up. No significant results were found in regards to percentage of heavy drinking days (*c* = -.068, SE_c = .081, *p* = .401; a_1 = -.122, *SE* = .125, *p* = .329; b_1 = .094, *SE* = .052, *p* = .071; a_1b_1 = -.012, *SE* = .015), average number of drinks per week (*c* = -.045, SE_c = .074, *p* = .544; a_1 = -.122, *SE* = .125, *p* = .330; b_1 = .092, *SE* = .047, *p* = .052; a_1b_1 = -.011, *SE* = .014), average number of marijuana uses per week (*c* = -.118, SE_c = .083, *p* = .156; a_1 = -.124, *SE* = .125, *p* = .327; b_1 = -.030, *SE* = .053, *p* = .569; a_1b_1 = .004, *SE* = .012), or alcohol-related predatory aggression (*c* = .060, SE_c = .063, *p* = .349; a_1 = -.110, *SE* = .125, *p* = .381; b_1 = -.005, *SE* = .041, *p* = .910; a_1b_1 = .001, *SE* = .008) at 3-month follow-up. Confidence intervals for all indirect effects resulting from the Adolescent Session 10 form and 3-month follow-up single mediation models are located in Table 23 in the Appendix.

Counselor Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.226, SE_c = .097, p = .022) at 6-month follow-up. In this model, treatment type was significantly related to deviancy training (a_1 = -.295, SE = .148, p = .048), but deviancy training did not significantly predict percentage of heavy drinking days (b_1 = .043, SE = .058, p = .457). The indirect effect of treatment type was insignificant (a_1b_1 = -.013, SE = .023). Confidence intervals for all indirect effects resulting from the Counselor Session 10 form and 6-month follow-up single mediation models are located in Table 24 in the Appendix.

No significant results were found in regards to average number of drinks per week (c = -.129, SE_c = .086, p = .135; a_1 = -.291, SE = .149, p = .054; b_1 = .016, SE = .051, p = .754; a_1b_1 = -.005, SE = .018), average number of marijuana uses per week (c = .011, SE_c = .093, p = .910; a_1 = -.241, SE = .153, p = .119; b_1 = -.033, SE = .054, p = .540; a_1b_1 = .008, SE = .017) or alcohol-related predatory aggression (c = -.048, SE_c = .068, p = .477; a_1 = -.272, SE = .153, p = .078; b_1 = .042, SE = .039, p = .275; a_1b_1 = -.012, SE = .015).

Observer Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.240, SE_c = .116, p = .042) at 6-month follow-up. In this model, treatment type was not significantly related to deviancy training (a_1 = -.095, SE = .123, p = .443), and deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = -.036, SE = .099, p = .715). The indirect effect of treatment type was insignificant (a_1b_1 = .003, SE = .017). Confidence intervals for all indirect effects resulting from the Observer

Session 10 form and 6-month follow-up single mediation models are located in Table 25 in the Appendix.

No significant results were found in regards to average number of drinks per week (c = -.129, SE_c = .104, p = .219; a_1 = -.097, SE = .123, p = .431; b_1 = -.029, SE = .089, p = .756; a_1b_1 = .003, SE = .016), average number of marijuana uses per week (c = .063, SE_c = .114, p = .585; a_1 = -.074, SE = .126, p = .558; b_1 = .002, SE = .096, p = .981; a_1b_1 = .000, SE = .020) or alcohol-related predatory aggression (c = -.097, SE_c = .092, p = .293; a_1 = -.107, SE = .122, p = .385; b_1 = .038, SE = .079, p = .630; a_1b_1 = -.004, SE = .020) at 6-month follow-up.

Adolescent Session 10 form and 6-month follow-up. Treatment type was significantly related to percentage of heavy drinking days (c = -.226, SE_c = .097, p = .022) at 6-month follow-up. However, treatment type was not significantly related to deviancy training (a_1 = -.134, SE = .132, p = .310), nor was deviancy training found to significantly predict percentage of heavy drinking days (b_1 = .042, SE = .065, p = .521). The indirect effect of treatment type was insignificant (a_1b_1 = -.006, SE = .014). Confidence intervals for all indirect effects resulting from the Adolescent Session 10 form and 6-month follow-up single mediation models are located in Table 26 in the Appendix.

Treatment type was not significantly related to average number of marijuana uses per week (c = .011, SE_c = .093, p = .910) or deviancy training (a_1 = -.128, SE = .133, p = .339). Although deviancy training was related to average number of marijuana uses per week (b_1 = -.121, SE = .061, p = .049) the indirect effect was insignificant (a_1b_1 = .016, SE = .019).

No significant results were found in regards to average number of drinks per week (c = -.129, SE_c = .086, p = .135; a_1 = -.134, SE = .132, p = .309; b_1 = -.021, SE = .057, p = .715; a_1b_1 = .003, SE = .012) or alcohol-related predatory aggression (c = -.048, SE_c = .068, p = .477; a_1 = -.129, SE = .132, p = .327; b_1 = -.027, SE = .045, p = .552; a_1b_1 = .004, SE = .010) at 6-month follow-up.

Summary. Deviancy training was examined as measured at group session 3 and 10 from counselor, teen, and observer perspectives. The four outcome variables were examined at both the 3- and 6-month follow-up periods. Again, CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. This relationship was found at the six-month follow-up period for all four outcome variables as assessed by observers at session 3 and for percentage of heavy drinking days as assessed by counselors at session 10. Less consistent support was found for the relationship between deviancy training and substance use outcomes at follow-up. Irrespective of treatment type, increased rates of deviancy training as rated by counselors at session 3 were associated with greater average number of drinks per week at 3-month follow-up. Increased rates of deviancy training as rated by counselors at session 10 were associated with increased average number of marijuana uses per week at 3-month follow-up. However, both of these relationships became insignificant at the 6-month follow-up period. Again, the indirect effect of treatment type was insignificant across all models examined.

Based on these findings, the session 3 deviancy ratings for all three perspectives and the session 10 ratings from the counselor perspective were further examined in moderated mediation models. The session 10 ratings from the observer and adolescent perspectives were excluded from further analyses as these models did not produce any significant path estimates.

Moderated Mediation of Age in the First Stage (X → M)

Counselor Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 27-30 located in the Appendix. Treatment type was not significantly related to deviancy training (a_1 = -.052, *SE* = .127, *p* = .685), nor was deviancy training found to significantly predict percentage of heavy drinking days (b_1 = .088, *SE* = .048, *p* = .070) at 3-month follow-up. Similarly, the effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .198, *SE* = .060, p = .104) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.005, .062). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Treatment type was not significantly related to deviancy training (a_1 = -.047, *SE* = .127, *p* = .204) but deviancy training was found to significantly predict average number of drinks per week (b_1 = .089, *SE* = .044, *p* = .044) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .206, *SE* = .122, p = .093) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.004, .059). This indicates that the

indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

Treatment type was not significantly related to deviancy training (a_1 = -.035, *SE* = .127, *p* = .216), nor was deviancy training found to significantly predict average number of marijuana uses per week (b_1 = .081, *SE* = .049, *p* = .105) at 3-month follow-up. Similarly, the effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .195, *SE* = .121, p = .110) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.005, .056). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Similarly, treatment type was not significantly related to deviancy training (a_1 = -.030, *SE* = .127, *p* = .813), nor was deviancy training found to significantly predict alcohol-related predatory aggression (b_1 = .050, *SE* = .038, *p* = .188) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .197, *SE* = .120, p = .102) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.006, .036). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by youths' age.

Observer Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 31-34 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .083, *p* = .024), but deviancy training was not found to significantly predict

percentage of heavy drinking days (b_1 = -.019, *SE* = .079, *p* = .810) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .019, *SE* = .077, p = .808) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.020, .008). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.190, *SE* = .083, *p* = .024) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = -.041, *SE* = .071, *p* = .564) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .016, *SE* = .078, p = .837) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.018, .009). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

Again, treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .084, *p* = .026), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .026, *SE* = .081, *p* = .748) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .019, *SE* = .078, p = .804) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.017, .017). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.183, *SE* = .084, *p* = .030), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = -.030, *SE* = .061, *p* = .623) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .022, *SE* = .077, p = .780) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.014, .010). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by youths' age.

Adolescent Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 35-38 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.016, *SE* = .131, *p* = .902; b_1 = .061, *SE* = .048, *p* = .203; a_3 = .022, *SE* = .077, p = .780; 95% CI for index of moderated mediation = -.009, .031), average number of drinks per week (a_1 = -.012, *SE* = .132, *p* = .926; b_1 = .067, *SE* = .043, *p* = .118; a_3 = .103, SE = .126, p = .414; 95% CI for index of moderated mediation = -.009, .032), average number of marijuana uses per week (a_1 = -.015, *SE* = .134, *p* = .909; b_1 = .006, *SE* = .048, *p* = .898; a_3 = .081, *SE* = .127, p = .525; 95% CI for index of moderated mediation = -.012, .018), or alcohol-related predatory aggression (a_1 = .024, *SE* = .130, *p* = .854; b_1 = .007, *SE* = .038, *p* = .845; a_3 = .097, *SE* = .123, p = .432; 95% CI for index of moderated mediation = -.010, .014) at 3-month follow-up.

Counselor Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 39-42 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = .064, *SE* = .133, *p* = .630; b_1 = .100, *SE* = .060, *p* = .099; a_3 = .213, *SE* = .122, p = .083; 95% CI for index of moderated mediation = -.006, .076), average number of drinks per week (a_1 = .068, *SE* = .133, *p* = .607; b_1 = .059, *SE* = .054, *p* = .278; a_3 = .224, SE = .122, p = .069; 95% CI for index of moderated mediation = -.012, .060), average number of marijuana uses per week (a_1 = .095, *SE* = .134, *p* = .482; b_1 = .053, *SE* = .059, *p* = .369; a_3 = .208, *SE* = .121, p = .089; 95% CI for index of moderated mediation = -.016, .051), or alcohol-related predatory aggression (a_1 = .081, *SE* = .133, *p* = .543; b_1 = .054, *SE* = .042, *p* = .206; a_3 = .198, *SE* = .120, p = .163; 95% CI for index of moderated mediation = -.008, .045) at 6-month follow-up.

Observer Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 43-46 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.182, *SE* = .093, *p* = .054; b_1 = .093, *SE* = .091, *p* = .307; a_3 = .029, *SE* = .085, p = .736; 95% CI for index of moderated mediation = -.030, .032), average number of drinks per week (a_1 = -.182, *SE* = .094, *p* = .053; b_1 = .062, *SE* = .080, *p* = .445; a_3 = .022, SE = .085, p = .795; 95% CI for index of moderated mediation = -.026, .022), average number of marijuana uses per week (a_1 = -.184, *SE* = .095, *p* = .056; b_1 = .044, *SE* = .090, *p* = .624; a_3 = .032, *SE* = .085, p = .710; 95% CI

for index of moderated mediation = -.023, .025), or alcohol-related predatory aggression (a_1 = -.178, *SE* = .094, *p* = .059; b_1 = .043, *SE* = .065, *p* = .507; a_3 = .026, *SE* = .084, p = .762; 95% CI for index of moderated mediation = -.031, .014) at 6-month follow-up.

Adolescent Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 47-50 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.046, *SE* = .135, *p* = .731; b_1 = .029, *SE* = .061, *p* = .636; a_3 = .157, *SE* = .123, p = .206; 95% CI for index of moderated mediation = -.016, .034), average number of drinks per week (a_1 = -.041, *SE* = .136, *p* = .763; b_1 = .021, *SE* = .053, *p* = .699; a_3 = .152, SE = .125, p = .227; 95% CI for index of moderated mediation = -.015, .029), average number of marijuana uses per week (a_1 = -.035, *SE* = .141, *p* = .805; b_1 = .001, *SE* = .057, *p* = .980; a_3 = .115, *SE* = .127, p = .366; 95% CI for index of moderated mediation = -.015, .022), or alcohol-related predatory aggression (a_1 = -.014, *SE* = .136, *p* = .917; b_1 = -.002, *SE* = .042, *p* = .966; a_3 = .118, *SE* = .122, p = .334; 95% CI for index of moderated mediation = -.014, .013) at 6-month follow-up.

Counselor Session 10 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 3-month follow-up moderated mediation models are displayed in Tables 51-54 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.335, *SE* = .138, *p* = .017), but deviancy training was not found to significantly predict

percentage of heavy drinking days (b_1 = .043, *SE* = .047, *p* = .368) at 3-month follow-up. Similarly, the effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .080, *SE* = .132, p = .544) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.012, .027). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Treatment type was significantly related to deviancy training (a_1 = -.328, *SE* = .140, *p* = .021), but deviancy training did not significantly predict average number of drinks per week (b_1 = .016, *SE* = .042, *p* = .704) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .084, *SE* = .135, p = .536) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.012, .019). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

Treatment type was significantly related to deviancy training (a_1 = -.305, *SE* = .142, *p* = .033) and deviancy training did significantly predict average number of marijuana uses per week (b_1 = .095, *SE* = .047, *p* = .042) at 3-month follow-up. However, the effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .065, *SE* = .135, p = .630) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.020, .039). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.313, *SE* = .143, *p* = .030), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .013, *SE* = .036, *p* = .723) at 3-month follow-up. The effect of treatment type on deviancy training by age yielded a nonsignificant result (a_3 = .041, *SE* = .135, p = .760) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.009, .013). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by youths' age.

Counselor Session 10 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 6-month follow-up moderated mediation models are displayed in Tables 55-58 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.293, *SE* = .149, *p* = .051; b_1 = .043, *SE* = .058, *p* = .457; a_3 = .093, *SE* = .136, p = .496; 95% CI for index of moderated mediation = -.013, .035), average number of drinks per week (a_1 = -.287, *SE* = .150, *p* = .058; b_1 = .016, *SE* = .051, *p* = .754; a_3 = .098, SE = .138, p = .479; 95% CI for index of moderated mediation = -.014, .027), average number of marijuana uses per week (a_1 = -.236, *SE* = .154, *p* = .129; b_1 = -.033, *SE* = .054, *p* = .540; a_3 = .054, *SE* = .140, *p* = .698; 95% CI for index of moderated mediation = -.025, .017), or alcohol-related predatory aggression (a_1 = -.265, *SE* = .154, *p* = .088; b_1 = .042, *SE* = .039, *p* = .275; a_3 = .025, *SE* = .139, p = .858; 95% CI for index of moderated mediation = -.015, .020) at 6-month follow-up.

Summary. CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. Less consistent support was found for the relationship between deviancy training and substance use outcomes at follow-up. Irrespective of treatment type, increased rates of deviancy training as rated by counselors at session 3 were associated with greater average number of drinks per week at 3-month follow-up. Increased rates of deviancy training as rated by counselors at session 10 were associated with increased average number of marijuana uses per week at 3-month follow-up. However, both of these relationships became insignificant at the 6-month follow-up period.

Across all moderated mediation models examined, the effect of treatment type on deviancy training by age was not found to produce a significant effect. Furthermore, none of the bootstrap confidence intervals produced evidence of moderated mediation. Therefore, no evidence was found to indicate the indirect effect of treatment type on substance use outcomes through deviancy training is moderated by youths' age.

Moderated Mediation of Conduct Disorder Symptoms in the First Stage (X →M)

Counselor Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 59-62 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.053, *SE* = .129, *p* = .677; b_1 = .088, *SE* = .048, *p* = .070; a_3 = -.027, *SE* = .038, p = .478; 95% CI for index of moderated mediation = -.011, .005).

Treatment type was not significantly related to deviancy training (a_1 = -.051, *SE* = .128, p = .688) but deviancy training was found to significantly predict average number of drinks per week (b_1 = .089, *SE* = .044, p = .044) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.028, *SE* = .038, p = .470) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.011, .005). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

No significant findings were found in regards to average number of marijuana uses per week (a_1 = -.038, *SE* = .128, p = .765; b_1 = .081, *SE* = .049, p = .105; a_3 = -.037, *SE* = .038, p = .329; 95% CI for index of moderated mediation = -.012, .004) or alcohol-related predatory aggression (a_1 = -.040, *SE* = .128, p = .755; b_1 = .050, *SE* = .038, p = .188; a_3 = -.032, *SE* = .038, p = .396; 95% CI for index of moderated mediation = -.008, .003).

Observer Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 63-66 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.188, *SE* = .082, p = .024), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = -.019, *SE* = .079, p = .810) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.037, *SE* = .025, p = .139) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.006, .007).

This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.190, *SE* = .082, *p* = .022) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = -.041, *SE* = .071, *p* = .564) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.036, *SE* = .025, p = .123) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.003, .008). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Again, treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .083, *p* = .024), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .026, *SE* = .081, *p* = .748) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.036, *SE* = .025, p = .152) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.010, .004). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .083, *p* = .024), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = -.030, *SE* = .061, *p* = .623) at 3-month

follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.037, *SE* = .025, p = .138) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.003, .007). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Adolescent Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 67-70 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = .001, *SE* = .128, *p* = .994; b_1 = .061, *SE* = .048, *p* = .203; a_3 = .019, *SE* = .038, p = .623; 95% CI for index of moderated mediation = -.004, .009), average number of drinks per week (a_1 = .003, *SE* = .129, *p* = .982; b_1 = .067, *SE* = .043, *p* = .118; a_3 = .013, SE = .039, p = .738; 95% CI for index of moderated mediation = -.004, .009), average number of marijuana uses per week (a_1 = .001, *SE* = .131, *p* = .995; b_1 = .006, *SE* = .048, *p* = .898; a_3 = .006, *SE* = .039, p = .885; 95% CI for index of moderated mediation = -.003, .005), or alcohol-related predatory aggression (a_1 = .024, *SE* = .128, *p* = .854; b_1 = .007, *SE* = .038, *p* = .845; a_3 = .004, *SE* = .038, p = .923; 95% CI for index of moderated mediation = -.003, .003) at 3-month follow-up.

Counselor Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 71-74 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = .065, *SE* = .134, *p* = .626; b_1 = .100, *SE* = .060, *p* = .099; a_3 =

-.049, *SE* = .040, p = .217; 95% CI for index of moderated mediation = -.018, .004), average number of drinks per week (a_1 = .067, *SE* = .133, *p* = .616; b_1 = .059, *SE* = .054, *p* = .278; a_3 = -.049, SE = .040, p = .225; 95% CI for index of moderated mediation = -.014, .004), average number of marijuana uses per week (a_1 = .091, *SE* = .134, *p* = .497; b_1 = .053, *SE* = .059, *p* = .369; a_3 = -.059, *SE* = .040, p = .141; 95% CI for index of moderated mediation = -.014, .005), or alcohol-related predatory aggression (a_1 = .076, *SE* = .134, *p* = .570; b_1 = .054, *SE* = .042, *p* = .206; a_3 = -.054, *SE* = .040, p = .175; 95% CI for index of moderated mediation = -.012, .002) at 6-month follow-up.

Observer Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 75-78 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.183, *SE* = .092, *p* = .049), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .093, *SE* = .091, *p* = .307) at 6-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.042, *SE* = .028, p = .135) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.021, .004). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.185, *SE* = .092, *p* = .047) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .062, *SE* = .080, *p* = .445) at 6-month follow-

up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.043, *SE* = .028, p = .122) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.015, .005). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Again, treatment type was significantly related to deviancy training (a_1 = -.188, *SE* = .094, *p* = .047), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .044, *SE* = .090, *p* = .624) at 6-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.042, *SE* = .028, p = .136) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.012, .006). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.187, *SE* = .093, *p* = .046), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .043, *SE* = .065, *p* = .507) at 6-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.041, *SE* = .027, p = .140) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.008, .007). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Adolescent Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 79-82 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.032, *SE* = .133, *p* = .812; b_1 = .029, *SE* = .061, *p* = .636; a_3 = -.001, *SE* = .040, p = .982; 95% CI for index of moderated mediation = -.005, .004), average number of drinks per week (a_1 = -.028, *SE* = .134, *p* = .834; b_1 = .021, *SE* = .053, *p* = .699; a_3 = -.004, SE = .040, p = .924; 95% CI for index of moderated mediation = -.004, .004), average number of marijuana uses per week (a_1 = -.022, *SE* = .138, *p* = .876; b_1 = .001, *SE* = .057, *p* = .980; a_3 = -.011, *SE* = .041, p = .797; 95% CI for index of moderated mediation = -.004, .005), or alcohol-related predatory aggression (a_1 = -.012, *SE* = .134, *p* = .929; b_1 = -.002, *SE* = .042, *p* = .966; a_3 = -.014, *SE* = .040, p = .728; 95% CI for index of moderated mediation = -.003, .003) at 6-month follow-up.

Counselor Session 10 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 3-month follow-up moderated mediation models are displayed in Tables 83-86 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.334, *SE* = .138, *p* = .016), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .043, *SE* = .047, *p* = .368) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.001, *SE* = .043, p = .989) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.005, .007).

This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.330, *SE* = .139, p = .019), but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .016, *SE* = .042, p = .706) at 3-month follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.007, *SE* = .043, p = .866) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.004, .005). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Treatment type was significantly related to deviancy training (a_1 = -.305, *SE* = .140, p = .031), and deviancy training was found to significantly predict average number of marijuana uses per week (b_1 = .095, *SE* = .047, p = .042) at 3-month follow-up. However, the effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.025, *SE* = .043, p = .552) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.013, .005). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.323, *SE* = .142, p = .024), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .013, *SE* = .036, p = .723) at 3-month

follow-up. The effect of treatment type on deviancy training by conduct disorder yielded a nonsignificant result (a_3 = -.023, *SE* = .043, p = .586) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.005, .003). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Counselor Session 10 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 6-month follow-up moderated mediation models are displayed in Tables 87-90 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.292, *SE* = .148, *p* = .051; b_1 = .043, *SE* = .058, *p* = .457; a_3 = -.021, *SE* = .046, p = .656; 95% CI for index of moderated mediation = -.012, .004), average number of drinks per week (a_1 = -.287, *SE* = .149, *p* = .056; b_1 = .016, *SE* = .051, *p* = .754; a_3 = -.022, SE = .046, p = .636; 95% CI for index of moderated mediation = -.009, .004), average number of marijuana uses per week (a_1 = -.238, *SE* = .152, *p* = .120; b_1 = -.033, *SE* = .054, *p* = .540; a_3 = -.040, *SE* = .047, p = .395; 95% CI for index of moderated mediation = -.006, .009), or alcohol-related predatory aggression (a_1 = -.273, *SE* = .153, *p* = .076; b_1 = .042, *SE* = .039, *p* = .275; a_3 = -.040, *SE* = .047, p = .394; 95% CI for index of moderated mediation = -.011, .003) at 6-month follow-up.

Summary. Again, CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. This relationship was found at the six-month follow-up period for all four outcome

variables as assessed by observers at session 3. Less consistent support was found for the relationship between deviancy training and substance use outcomes at follow-up. Irrespective of treatment type, increased rates of deviancy training as rated by counselors at session 3 were associated with greater average number of drinks per week at 3-month follow-up. Increased rates of deviancy training as rated by counselors at session 10 were associated with increased average number of marijuana uses per week at 3-month follow-up. However, both of these relationships became insignificant at the 6-month follow-up period.

Across all moderated mediation models examined, the effect of treatment type on deviancy training by conduct disorder was not found to produce a significant effect. Furthermore, none of the bootstrap confidence intervals produced evidence of moderated mediation. Therefore, no evidence was found to indicate the indirect effect of treatment type on substance use outcomes through deviancy training is moderated by conduct disorder.

Moderated Mediation of Age in the Second Stage (M → Y)

Counselor Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 91-94 located in the Appendix. Treatment type was not significantly related to deviancy training (a_1 = -.058, SE = .127, p = .651), nor was deviancy training found to significantly predict percentage of heavy drinking days (b_1 = .094, SE = .048, p = .051) at 3-month follow-up. Similarly, the effect of deviancy training on percentage of heavy drinking days by age yielded a nonsignificant result (b_3 = .041, SE = .048, p = .388) and the bootstrap

confidence interval for the index of moderated mediation included zero (95% CI = -.021, .019). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Treatment type was not significantly related to deviancy training (a_1 = -.055, *SE* = .117, p = .666) but deviancy training was found to significantly predict average number of drinks per week (b_1 = .096, *SE* = .043, p = .029) at 3-month follow-up. The effect of deviancy training on average number of drinks per week by age yielded a nonsignificant result (b_3 = .061, *SE* = .043, p = .158) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.024, .019). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

No significant results were found in regards to average number of marijuana uses per week (a_1 = -.044, *SE* = .128, p = .733; b_1 = .089, *SE* = .049, p = .071; b_3 = .027, *SE* = .049, p = .586; 95% CI for index of moderated mediation = -.018, .018), or alcohol-related predatory aggression (a_1 = -.041, *SE* = .128, p = .746; b_1 = .056, *SE* = .038, p = .148; b_3 = .065, *SE* = .038, p = .091; 95% CI for index of moderated mediation = -.023, .017) at 3-month follow-up.

Observer Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 95-98 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.194, *SE* = .083, p = .021), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .005, *SE* = .081, p = .953) at 3-month follow-

up. The effect of deviancy training on percentage of heavy drinking days by age yielded a nonsignificant result (b_3 = .016, *SE* = .060, p = .784) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.024, .015). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.195, *SE* = .083, *p* = .021) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = -.022, *SE* = .073, *p* = .768) at 3-month follow-up. The effect of deviancy training on average number of drinks per week by age yielded a nonsignificant result (b_3 = .009, *SE* = .054, p = .865) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.019, .017). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

Again, treatment type was significantly related to deviancy training (a_1 = -.193, *SE* = .084, *p* = .023), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .057, *SE* = .083, *p* = .494) at 3-month follow-up. The effect of deviancy training on average number of marijuana uses per week by age yielded a nonsignificant result (b_3 = .035, *SE* = .061, p = .572) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.034, .014). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.190, *SE* = .084, *p* = .025), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = -.021, *SE* = .064, *p* = .740) at 3-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by age yielded a nonsignificant result (b_3 = .024, *SE* = .047, p = .609) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.022, .008). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by youths' age.

Adolescent Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 99-102 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.016, *SE* = .130, *p* = .905; b_1 = .059, *SE* = .047, *p* = .217; b_3 = -.020, *SE* = .055, p = .716; 95% CI for index of moderated mediation = -.019, .017), average number of drinks per week (a_1 = -.013, *SE* = .131, *p* = .922; b_1 = .066, *SE* = .043, *p* = .121; b_3 = .014, SE = .050, p = .779; 95% CI for index of moderated mediation = -.019, .015), average number of marijuana uses per week (a_1 = -.015, *SE* = .133, *p* = .913; b_1 = .003, *SE* = .047, *p* = .947; b_3 = -.011, *SE* = .055, p = .840; 95% CI for index of moderated mediation = -.012, .019), or alcohol-related predatory aggression (a_1 = .020, *SE* = .129, *p* = .878; b_1 = .008, *SE* = .038, *p* = .831; b_3 = .023, *SE* = .044, p = .606; 95% CI for index of moderated mediation = -.009, .016) at 3-month follow-up.

Counselor Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 103-106 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = .061, *SE* = .133, *p* = .646; b_1 = .102, *SE* = .061, *p* = .094; b_3 = .013, *SE* = .056, p = .817; 95% CI for index of moderated mediation = -.014, .030), average number of drinks per week (a_1 = .064, *SE* = .133, *p* = .632; b_1 = .061, *SE* = .054, *p* = .263; b_3 = -.004, SE = .050, p = .944; 95% CI for index of moderated mediation = -.014, .024), average number of marijuana uses per week (a_1 = .088, *SE* = .135, *p* = .516; b_1 = .055, *SE* = .057, *p* = .338; b_3 = -.046, *SE* = .053, p = .384; 95% CI for index of moderated mediation = -.030, .017), or alcohol-related predatory aggression (a_1 = .075, *SE* = .134, *p* = .578; b_1 = .055, *SE* = .042, *p* = .192; b_3 = -.001, *SE* = .040, p = .987; 95% CI for index of moderated mediation = -.014, .019) at 6-month follow-up.

Observer Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 107-110 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.187, *SE* = .094, *p* = .048), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .109, *SE* = .095, *p* = .255) at 6-month follow-up. The effect of deviancy training on percentage of heavy drinking days by age yielded a nonsignificant result (b_3 = .006, *SE* = .068, p = .934) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI =

-.036, .036). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youth's age.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.188, *SE* = .094, p = .047) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .085, *SE* = .084, p = .312) at 6-month follow-up. The effect of deviancy training on average number of drinks per week by age yielded a nonsignificant result (b_3 = .019, *SE* = .060, p = .757) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.036, .032). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youth's age.

Again, treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .095, p = .049), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .097, *SE* = .090, p = .287) at 6-month follow-up. The effect of deviancy training on average number of marijuana uses per week by age yielded a nonsignificant result (b_3 = .051, *SE* = .064, p = .422) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.043, .016). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.186, *SE* = .094, $p < .05$), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .078, *SE* = .067, p = .260) at 6-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by

age yielded a nonsignificant result (b_3 = .060, *SE* = .047, p = .207) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.044, .019). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by age.

Adolescent Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 111-114 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.045, *SE* = .134, *p* = .740; b_1 = .023, *SE* = .060, *p* = .701; b_3 = .080, *SE* = .064, p = .213; 95% CI for index of moderated mediation = -.040, .024), average number of drinks per week (a_1 = -.041, *SE* = .136, *p* = .763; b_1 = .016, *SE* = .053, *p* = .769; b_3 = .063, SE = .056, p = .265; 95% CI for index of moderated mediation = -.034, .021), average number of marijuana uses per week (a_1 = -.034, *SE* = .140, *p* = .807; b_1 = -.008, *SE* = .055, *p* = .885; b_3 = .056, *SE* = .059, p = .344; 95% CI for index of moderated mediation = -.029, .025), or alcohol-related predatory aggression (a_1 = -.017, *SE* = .135, *p* = .901; b_1 = -.003, *SE* = .042, *p* = .951; b_3 = .049, *SE* = .045, p = .277; 95% CI for index of moderated mediation = -.023, .017) at 6-month follow-up.

Counselor Session 10 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 3-month follow-up moderated mediation models are displayed in Tables 115-118 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.340, *SE* = .138, *p* = .015), but was deviancy training was not found to significantly predict

percentage of heavy drinking days (b_1 = .050, *SE* = .047, *p* = .293) at 3-month follow-up. The effect of deviancy training on percentage of heavy drinking days by age yielded a nonsignificant result (b_3 = .019, *SE* = .046, p = .683) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.043, .032). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youths' age.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.334, *SE* = .140, *p* = .018) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .023, *SE* = .042, *p* = .587) at 3-month follow-up. The effect of deviancy training on average number of drinks per week by age yielded a nonsignificant result (b_3 = .017, *SE* = .042, p = .682) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.040, .027). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by youths' age.

Treatment type was significantly related to deviancy training (a_1 = -.310, *SE* = .141, *p* = .029), and was deviancy training was found to significantly predict average number of marijuana uses per week (b_1 = .099, *SE* = .046, *p* = .034) at 3-month follow-up. However, the effect of deviancy training on average number of marijuana uses per week by age yielded a nonsignificant result (b_3 = -.035, *SE* = .047, p = .452) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.019, .051). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by youths' age.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.322, *SE* = .142, *p* = .025) but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .016, *SE* = .036, *p* = .661) at 3-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by age yielded a nonsignificant result (b_3 = .023, *SE* = .037, p = .531) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.035, .017). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by youths' age.

Counselor Session 10 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 6-month follow-up moderated mediation models are displayed in Tables 119-122 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.295, *SE* = .148, *p* = .048), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .044, *SE* = .058, *p* = .452) at 6-month follow-up. The effect of deviancy training on percentage of heavy drinking days by age yielded a nonsignificant result (b_3 = -.023, *SE* = .053, *p* = .666) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.028, .060). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by youth's age.

No significant results were found in regards to average number of drinks per week (a_1 = -.291, *SE* = .149, *p* = .054; b_1 = .018, *SE* = .051, *p* = .731; b_3 = -.035, SE = .047, p = .454; 95% CI for index of moderated mediation = -.020, .060), average number of marijuana uses per week (a_1 = -.241, *SE* = .153, *p* = .119; b_1 = -.028, *SE* =

.053, p = .598; b_3 = -.024, SE = .050, p = .639; 95% CI for index of moderated mediation = -.021, .046), or alcohol-related predatory aggression (a_1 = -.272, SE = .153, p = .078; b_1 = .043, SE = .039, p = .278; b_3 = -.026, SE = .037, p = .493; 95% CI for index of moderated mediation = -.018, .044) at 6-month follow-up.

Summary. CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. This relationship was found at the six-month follow-up period for all four outcome variables as assessed by observers at session 3 and for percentage of heavy drinking days as assessed by counselors at session 10. Less consistent support was found for the relationship between deviancy training and substance use outcomes at follow-up. Irrespective of treatment type, increased rates of deviancy training as rated by counselors at session 3 were associated with greater average number of drinks per week at 3-month follow-up. Increased rates of deviancy training as rated by counselors at session 10 were associated with increased average number of marijuana uses per week at 3-month follow-up. However, both of these relationships became insignificant at the 6-month follow-up period. These findings are consistent with those resulting from the simple mediation models.

Across all moderated mediation models examined, the effect of deviancy training on substance use outcomes by age was not found to produce a significant effect. Furthermore, none of the bootstrap confidence intervals produced evidence of moderated mediation. Therefore, no evidence was found to indicate the indirect effect

of treatment type on substance use outcomes through deviancy training is moderated by youths' age.

Moderated Mediation of Conduct Disorder Symptoms in the Second Stage (M →Y)

Counselor Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 123-126 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.058, *SE* = .127, *p* = .651; b_1 = .079, *SE* = .048, *p* = .103; b_3 = .019, *SE* = .015, p = .222; 95% CI for index of moderated mediation = -.009, .006), average number of drinks per week (a_1 = -.055, *SE* = .127, *p* = .666; b_1 = .084, *SE* = .044, *p* = .057; b_3 = .002, *SE* = .014, p = .860; 95% CI for index of moderated mediation = -.005, .005), average number of marijuana uses per week (a_1 = -.044, *SE* = .128, *p* = .733; b_1 = .079, *SE* = .050, *p* = .118; b_3 = -.003, *SE* = .016, p = .864; 95% CI for index of moderated mediation = -.005, .006), or alcohol-related predatory aggression (a_1 = -.041, *SE* = .128, *p* = .746; b_1 = .051, *SE* = .038, *p* = .183; b_3 = -.008, *SE* = .012, p = .485; 95% CI for index of moderated mediation = -.003, .005).

Observer Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 127-130 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.194, *SE* = .083, *p* = .021), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = -.036, *SE* = .084, *p* = .670) at 3-month follow-

up. The effect of deviancy training on percentage of heavy drinking days by conduct disorder yielded a nonsignificant result (b_3 = -.001, *SE* = .021, p = .980) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.012, .008). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.195, *SE* = .083, *p* = .021) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = -.055, *SE* = .075, *p* = .467) at 3-month follow-up. The effect of deviancy training on average number of drinks per week by conduct disorder yielded a nonsignificant result (b_3 = -.007, *SE* = .019, p = .718) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.008, .008). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Again, treatment type was significantly related to deviancy training (a_1 = -.193, *SE* = .084, *p* = .023), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .042, *SE* = .087, *p* = .961) at 3-month follow-up. The effect of deviancy training on average number of marijuana uses per week by conduct disorder yielded a nonsignificant result (b_3 = .007, *SE* = .022, p = .756) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.010, .007). This indicates that the indirect effect

of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.190, *SE* = .084, *p* = .025), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = -.032, *SE* = .066, *p* = .629) at 3-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by conduct disorder yielded a nonsignificant result (b_3 = -.007, *SE* = .017, p = .690) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.004, .008). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Adolescent Session 3 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 3-month follow-up moderated mediation models are displayed in Tables 131-134 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = -.016, *SE* = .130, *p* = .905; b_1 = .039, *SE* = .053, *p* = .459; b_3 = .008, *SE* = .017, p = .664; 95% CI for index of moderated mediation = -.005, .007), average number of drinks per week (a_1 = -.013, *SE* = .131, *p* = .922; b_1 = .074, *SE* = .048, *p* = .122; b_3 = -.016, SE = .016, p = .315; 95% CI for index of moderated mediation = -.005, .009), average number of marijuana uses per week (a_1 = -.015, *SE* = .133, *p* = .913; b_1 = -.009, *SE* = .053, *p* = .874; b_3 = .005, *SE* = .018, p = .762; 95% CI for index of moderated mediation = -.005, .007), or alcohol-related predatory aggression (a_1 = .020, *SE* = .129, *p* = .878; b_1 = .000, *SE* = .042, *p* = .999; b_3 = .001, *SE*

= .014, p = .952; 95% CI for index of moderated mediation = -.004, .004) at 3-month follow-up.

Counselor Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 135-138 located in the Appendix. No significant results were found in regards to percentage of heavy drinking days (a_1 = .061, *SE* = .133, *p* = .646; b_1 = .098, *SE* = .061, *p* = .109; b_3 = -.010, *SE* = .019, p = .606; 95% CI for index of moderated mediation = -.009, .005), average number of drinks per week (a_1 = .064, *SE* = .133, *p* = .632; b_1 = .054, *SE* = .054, *p* = .322; b_3 = .002, SE = .017, p = .322; 95% CI for index of moderated mediation = -.006, .005), average number of marijuana uses per week (a_1 = .088, *SE* = .135, *p* = .516; b_1 = .048, *SE* = .060, *p* = .412; b_3 = .005, *SE* = .018, p = .791; 95% CI for index of moderated mediation = -.006, .007), or alcohol-related predatory aggression (a_1 = .075, *SE* = .134, *p* = .578; b_1 = .054, *SE* = .042, *p* = .203; b_3 = -.009, *SE* = .013, p = .493; 95% CI for index of moderated mediation = -.007, .003) at 6-month follow-up.

Observer Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Observer Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 139-142 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.187, *SE* = .094, *p* = .048), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .033, *SE* = .097, *p* = .753) at 6-month follow-up. The effect of deviancy training on percentage of heavy drinking days by conduct

disorder yielded a nonsignificant result (b_3 = .020, *SE* = .024, p = .411) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.020, .010). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.188, *SE* = .094, *p* = .047) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .023, *SE* = .086, *p* = .789) at 6-month follow-up. The effect of deviancy training on average number of drinks per week by conduct disorder yielded a nonsignificant result (b_3 = .006, *SE* = .022, p = .771) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.015, .012). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Again, treatment type was significantly related to deviancy training (a_1 = -.189, *SE* = .095, *p* = .049), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .031, *SE* = .097, *p* = .749) at 6-month follow-up. The effect of deviancy training on average number of marijuana uses per week by conduct disorder yielded a nonsignificant result (b_3 = .002, *SE* = .024, p = .938) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.011, .015). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.186, *SE* = .094, $p < .05$), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .075, *SE* = .069, p = .284) at 6-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by conduct disorder yielded a nonsignificant result (b_3 = -.027, *SE* = .017, p = .118) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.005, .019). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Adolescent Session 3 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Adolescent Session 3 form and 6-month follow-up moderated mediation models are displayed in Tables 143-146 located in the Appendix. Treatment type was not significantly related to deviancy training (a_1 = -.041, *SE* = .136, p = .763), nor was deviancy training found to significantly predict average number of drinks per week (b_1 = .033, *SE* = .055, p = .553) at 6-month follow-up. The effect of deviancy training on average number of drinks per week by conduct disorder yielded a significant result (b_3 = -.042, *SE* = .019, p = .028). However, the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.010, .016). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

No significant results were found in regards to percentage of heavy drinking days (a_1 = -.045, *SE* = .134, p = .740; b_1 = .038, *SE* = .063, p = .547; b_3 = -.039, *SE* =

.022, p = .072; 95% CI for index of moderated mediation = -.010, .016), average number of marijuana uses per week (a_1 = -.034, *SE* = .140, *p* = .807; b_1 = .017, *SE* = .060, *p* = .781; b_3 = -.034, *SE* = .021, p = .108; 95% CI for index of moderated mediation = -.009, .015), or alcohol-related predatory aggression (a_1 = -.017, *SE* = .135, *p* = .901; b_1 = .009, *SE* = .044, *p* = .833; b_3 = -.023, *SE* = .015, p = .140; 95% CI for index of moderated mediation = -.007, .009) at 6-month follow-up.

Counselor Session 10 Form and 3-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 3-month follow-up moderated mediation models are displayed in Tables 147-150 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.340, *SE* = .138, *p* = .015), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = -.024, *SE* = .048, *p* = .620) at 3-month follow-up. The effect of deviancy training on percentage of heavy drinking days by conduct disorder yielded a nonsignificant result (b_3 = .021, *SE* = .015, p = .157) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.021, .002). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

Similarly, treatment type was significantly related to deviancy training (a_1 = -.332, *SE* = .140, *p* = .018) but deviancy training was not found to significantly predict average number of drinks per week (b_1 = .000, *SE* = .043, *p* = .994) at 3-month follow-up. The effect of deviancy training on average number of drinks per week by conduct disorder yielded a nonsignificant result (b_3 = .015, *SE* = .014, p = .285) and the

bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.017, .004). This indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder.

Again, treatment type was significantly related to deviancy training (a_1 = -.310, *SE* = .141, p = .029), but deviancy training was not found to significantly predict average number of marijuana uses per week (b_1 = .090, *SE* = .048, p = .064) at 3-month follow-up. The effect of deviancy training on average number of marijuana uses per week by conduct disorder yielded a nonsignificant result (b_3 = .006, *SE* = .015, p = .700) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.015, .008). This indicates that the indirect effect of treatment type on average number of marijuana uses per week through deviancy training is not moderated by conduct disorder.

Lastly, treatment type was significantly related to deviancy training (a_1 = -.322, *SE* = .142, p = .025), but deviancy training was not found to significantly predict alcohol-related predatory aggression (b_1 = .007, *SE* = .037, p = .844) at 3-month follow-up. The effect of deviancy training on alcohol-related predatory aggression by conduct disorder yielded a nonsignificant result (b_3 = .001, *SE* = .012, p = .916) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.008, .006). This indicates that the indirect effect of treatment type on alcohol-related predatory aggression through deviancy training is not moderated by conduct disorder.

Counselor Session 10 Form and 6-month Follow-up. The estimated regression coefficients resulting from the Counselor Session 10 form and 6-month follow-up moderated mediation models are displayed in Tables 151-154 located in the Appendix. Treatment type was significantly related to deviancy training (a_1 = -.295, *SE* = .148, p = .048), but deviancy training was not found to significantly predict percentage of heavy drinking days (b_1 = .034, *SE* = .058, p = .566) at 6-month follow-up. The effect of deviancy training on percentage of heavy drinking days by conduct disorder yielded a nonsignificant result (b_3 = -.005, *SE* = .018, p = .788) and the bootstrap confidence interval for the index of moderated mediation included zero (95% CI = -.016, .014). This indicates that the indirect effect of treatment type on percentage of heavy drinking days through deviancy training is not moderated by conduct disorder.

No significant results were found in regards to average number of drinks per week (a_1 = -.291, *SE* = .149, p = .054; b_1 = .004, *SE* = .051, p = .936; b_3 = .003, SE = .016, p = .865; 95% CI for index of moderated mediation = -.018, .010), average number of marijuana uses per week (a_1 = -.241, *SE* = .153, p = .119; b_1 = -.040, *SE* = .055, p = .475; b_3 = .004, *SE* = .018, p = .822; 95% CI for index of moderated mediation = -.015, .008), or alcohol-related predatory aggression (a_1 = -.272, *SE* = .153, p = .078; b_1 = .039, *SE* = .039, p = .324; b_3 = -.001, *SE* = .012, p = .947; 95% CI for index of moderated mediation = -.009, .008) at 6-month follow-up.

Summary. Again, CBT was associated with greater rates of deviancy training compared to SET as rated by observers at session 3 and counselors at session 10 for all four substance use outcome variables at the 3-month follow-up period. This

relationship was found at the six-month follow-up period for all four outcome variables as assessed by observers at session 3 and for percentage of heavy drinking days as assessed by counselors at session 10. No significant relationships were found between deviancy training and substance use outcomes at follow-up. The effect of deviancy training on average number of drinks per week at 6-month follow-up by conduct disorder was found to produce a significant effect as rated by adolescents at session 3. However, the bootstrap confidence interval for the index of moderated mediation included zero which indicates that the indirect effect of treatment type on average number of drinks per week through deviancy training is not moderated by conduct disorder. None of the other moderated mediation models examined found a significant effect effect of deviancy training on substance use outcomes by conduct disorder. Furthermore, none of the bootstrap confidence intervals produced evidence of moderated mediation. Therefore, no evidence was found to indicate the indirect effect of treatment type on substance use outcomes through deviancy training is moderated by conduct disorder.

CHAPTER 4: DISCUSSION

The current study sought to identify the extent to which various group processes as rated by counselors, observers, and adolescents mediate the relationship between type of group treatment received while incarcerated and adolescents' substance use and conduct problems following their release. Of the group processes investigated, only deviancy training was differentially impacted by treatment type as rated by counselors and observers. Treatment differences were not found when using adolescent ratings, suggesting that adolescents may be less able to meaningfully assess their own behaviors during group treatment.

Treatment type was found to have a significant direct effect of small/medium size on percentage of heavy drinking days at 6-month follow-up. Adolescents who received SET group treatment showed greater decreases in this outcome variable than adolescents who received CBT group treatment. No other significant direct effects of treatment type on substance use outcomes were found. See the main outcomes paper by Stein et al. (2015).

Although the present study utilized the same measure of group process dimensions as Dishion et al. (2001), direct comparisons are difficult to make due to stark differences in research methodology (i.e., statistical analyses, outcome variables, follow-up periods); however similarities in findings across studies will be discussed. Contrary to earlier research (Dishion & Andrews, 1995; Dishion et al., 1999; Dishion et al., 2001; Poulin et al., 2001), results from the present study support the literature against iatrogenic effects resulting from group treatment. When using counselor and

observer ratings of group process, more deviancy training was found to occur in CBT groups compared to SET groups. These results are unlikely due to counselor effects or poor implementation given that counselors conducted both intervention types and received close supervision with manualized fidelity procedures. Moreover, this finding is consistent with Poulin et al. (2001) who found CBT to be associated with increases in deviancy. Why more deviancy training occurs in CBT group treatment compared to other forms of group treatment warrants further research. It may be that the interactive format of CBT merely provides more opportunities for adolescents to display deviant behavior compared to the more didactic psycho-educational format of SET. The present study examined the role of age and conduct disorder in the relationship between group treatment type and deviancy training. Future research may wish to examine the impact of additional client characteristics. For example, significantly more adolescents identified as Hispanic in SET than in CBT in the present study. Additional research is needed to determine whether cultural factors influence deviancy training in group treatment.

Little evidence was found in support of the hypothesis that deviancy training occurring in group treatment is related to poorer outcomes, or iatrogenic effects. A positive significant relationship was found between deviancy training and average number of drinks per week at 3-month follow-up as rated by counselors at session 3, and between deviancy training and average number of marijuana uses per week at 3-month follow-up as rated by counselors at session 10. However, neither of these relationships (b_1 = .088 and .095, respectively) met criteria for a small effect size (i.e., .14) and both vanished by the 6-month follow-up period. Relaxing the level of

significance to $p < .10$ as done by Dishion et al. (1999; 2001) produces three additional positive relationships between deviancy training and percentage of heavy drinking days and one additional positive relationship between deviancy training and average number of drinks per week, but none of these relationships produced even a small effect size ($b_1 = .088$ to .100). These findings seem to suggest that any iatrogenic effects that may result from group treatment are weak and temporary. Furthermore, the indirect effect of treatment type was insignificant across all models examined. This suggests that the effect of treatment on the substance use outcomes examined is not mediated by deviancy training, or any of the other group processes investigated.

Across all moderated mediation models tested, neither age nor conduct disorder symptoms were found to moderate the relationship between type of group treatment received and deviancy training (first stage; X → M), or the relationship between deviancy training and substance use outcomes at follow-up (second stage; M → Y). The findings regarding conduct disorder are consistent with those reported by Burleson et al. (2006), who found that neither individual level of conduct disorder, nor group composition in terms of conduct disorder, were associated with poorer substance use outcomes. Weiss et al. (2005) tested interaction effects to investigate whether specific subgroups of participants are associated with stronger iatrogenic effects. Of the 18 tests conducted, only one produced statistically marginal support for potential iatrogenic effects. According to this test, the likelihood of producing a negative effect size (i.e., producing iatrogenic effects) peaked at age 11. This finding may explain some of the discrepancy in the literature regarding iatrogenic effects

resulting from group treatment. For example, in the study conducted by Dishion and Andrews (1995) in which evidence of iatrogenic effects were found, participants ranged in age from 11 to 14 with a mean age of 12. Participants ranged in age from 14-18 in the current study and from 12-17 in the study conducted by Burleson et al. (2006), neither of which found support for iatrogenic effects. Future research investigating this phenomenon may wish to focus on younger cohorts of participants to identify potential mechanisms through which iatrogenic effects may occur.

Additional research is needed to determine the role of connectedness to counselor in mediating the relationship between treatment type received and substance use outcomes. More specifically, developing a psychometrically sound multi-item scale for assessing connectedness to counselor seems of particular importance in order to replicate Dishion et al.'s (2001) finding that a positive relationship with an older peer counselor leads to more optimal outcomes. Therapist-praised positive behavior and peer rejection also warrant additional research. Therapist-praised positive behavior was found to be associated with better outcome at follow-up in some of the multiple mediator models. This may suggest that therapists can improve treatment outcomes for adolescents with more praise irrespective of treatment type; it may also be that less deviant youth tend to receive greater amounts of praise by their therapists. Interestingly, greater amounts of peer rejection were associated with better outcome at follow-up in some of the multiple mediator models. This finding is consistent with the study conducted by Dishion et al. (2001) in which peer rejection was found to be associated with less iatrogenic growth for smoking. It may be that rejected peers are more isolated; therefore, to the extent that substance abuse occurs in a social context,

rejection by peers may relate to decreased substance abuse. More research is needed to clarify this finding.

Future studies might investigate other variables that are likely to mediate the relationship between treatment type and substance use outcomes post-release in order to help elucidate why adolescents who received SET group treatment reported more optimal outcomes compared to adolescents who received CBT group treatment. For example, it may be that adolescents are more attracted to the curriculum and/or structure of SET groups compared to the more interactive structure of CBT groups, which require meta-cognition (i.e., thinking about thinking). Future studies may wish to examine the role of treatment engagement in mediating this relationship to test this possibility.

The present study may be limited by its relatively short follow-up periods (i.e., 3- and 6-months post-release) compared to the studies in support of iatrogenic effects; Dishion & Andrews (1995) found iatrogenic effects at 1-year follow-up, Poulin et al. (2001) at 2- and 3-year follow-ups, and McCord (1978) at 30-year follow-up. On the other hand, treatment studies generally produce stronger immediate than delayed effects (Weiss et al, 2005), somewhat mitigating the possibility that longer follow-ups in the present study might have produced iatrogenic treatment effects as mediated by group processes.

The present study utilized data collected from group interventions but did not assess for dependence in the data resulting from the nesting of participants in groups. This has the potential to inflate Type I error rates and result in spurious "significant" findings (Tasca, Illing, Ogrodniczuk, & Joyce, 2009). However, no significant

findings indicative of mediation or moderated mediation were found; thus, there is little need for concern that the results presented here represent spurious findings. Future research may wish to utilize a multilevel approach to determine whether deviancy training mediates the relationship between type of group intervention received and substance use and conduct problems following release in order to account for the non-independence that is typical of group data. Furthermore, it may be that adolescents are more susceptible to deviancy training resulting from peer relationships that are more time-intensive than those resulting from group treatment. For example, incarcerated youth spend much more time per day interacting with the youth on their housing unit than those in their treatment group(s). It may be these peer interactions, along with those the adolescents return to or develop once released back to their communities, that have the greatest potential for producing iatrogenic effects. Multilevel modeling could be used to account for these group relationships as well.

Additionally, modern approaches for handling missing data (e.g., multiple imputation) were not used. This is because the macros used to conduct the analyses do not accommodate missing data imputation routines. Missing data procedures would have resulted in N=205 for all analyses; however, this sample size still would not have been large enough to detect small path effect sizes (Fritz & MacKinnon, 2007) or small conditional indirect effects (Preacher et al., 2007). Additional research with larger sample sizes is needed to test for small effects, particularly within a multilevel framework. Future research could also examine the role of group processes as measured at the group-level using the Group Process-Group Leavel (GP-GL) measure (Bassett et al., 2015).

This study is important for several reasons. It is the first study to date known to specifically test whether deviancy training is the mechanism through which iatrogenic effects of group treatment purportedly occur using mediation analyses. Additionally, this study included measures of deviancy training from multiple vantage points (counselors, observers, and adolescents) to test whether one perspective is more predictive of treatment outcomes. The present study utilized data collected from a diverse sample of incarcerated adolescents who may be most at risk for experiencing iatrogenic effects given earlier findings that iatrogenic effects are most pronounced among homogenous groups comprised only of antisocial youth (Dishion et al., 1999). Although more research is warranted, no support for iatrogenic effects was found due to deviancy training or other group processes. As a result, the findings suggest group treatment remains an attractive and economical approach to providing clinical services to adolescents with substance abuse problems.

APPENDIX

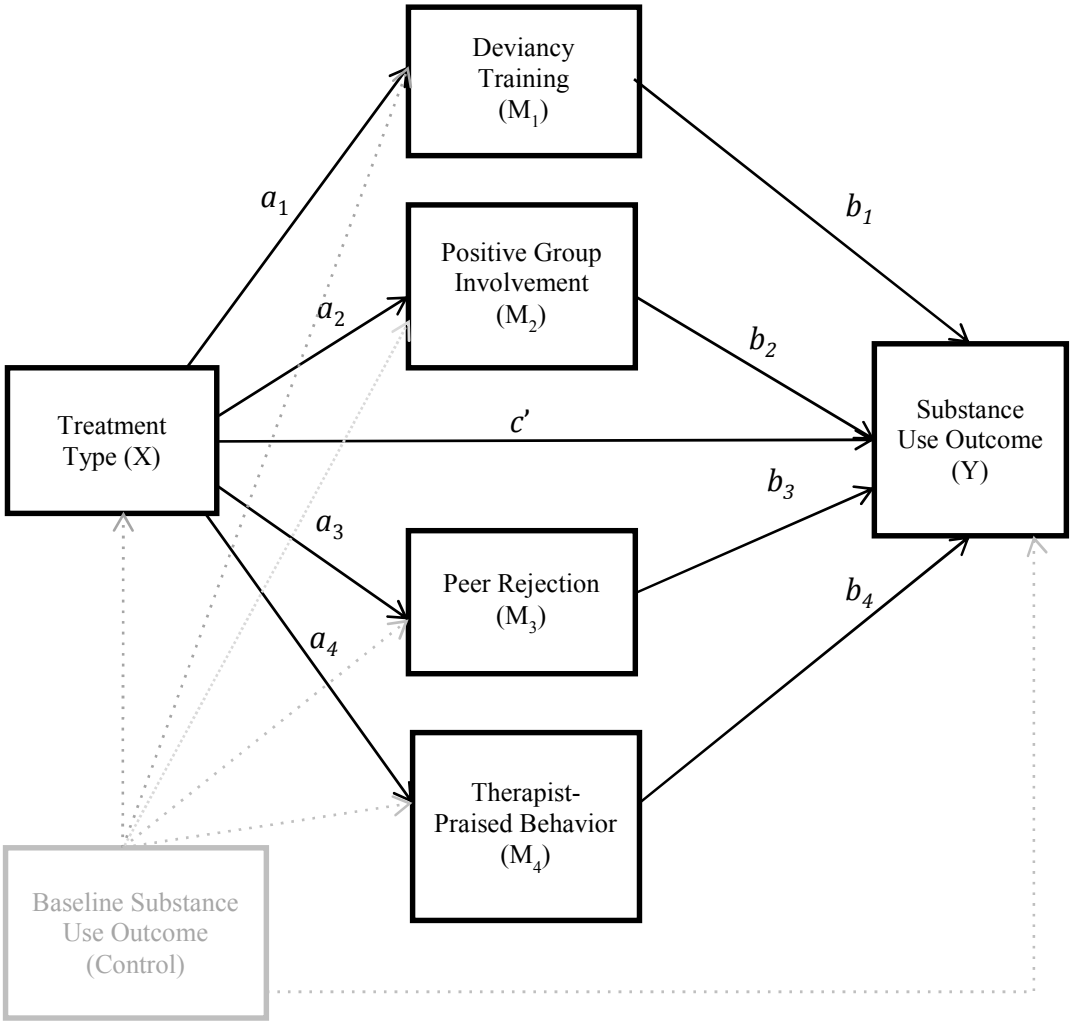

Figure 1. Multiple Mediator Statistical Model. The *a* paths represent the effect of *X* on the proposed mediators, the *b* paths represent the effect of *M* on *Y* partialling out the effect of *X*, and *c*' represents the direct effect of *X* on *Y*.

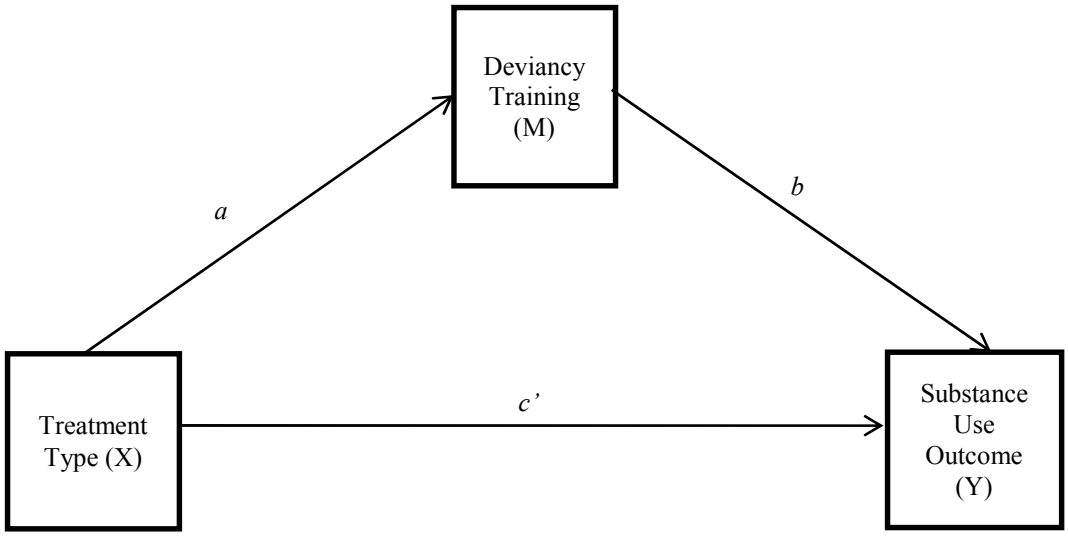

Figure 2. Illustration of Simple Mediation Model. *X* is hypothesized to exert an indirect effect on *Y* through *M*.

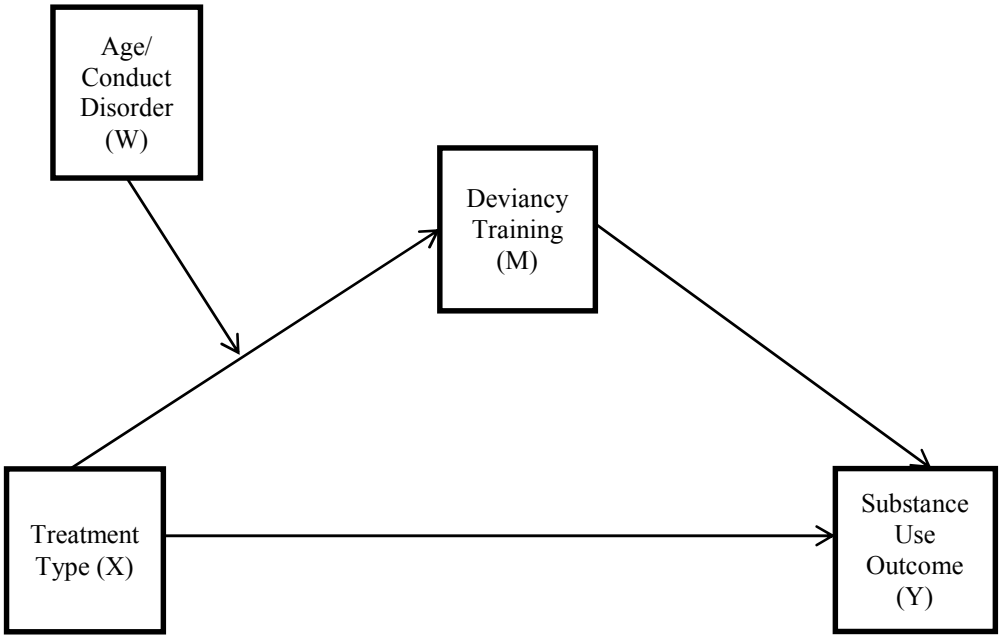

Figure 3a. Conceptual Model for Moderated Mediation in the First Stage (X→M).

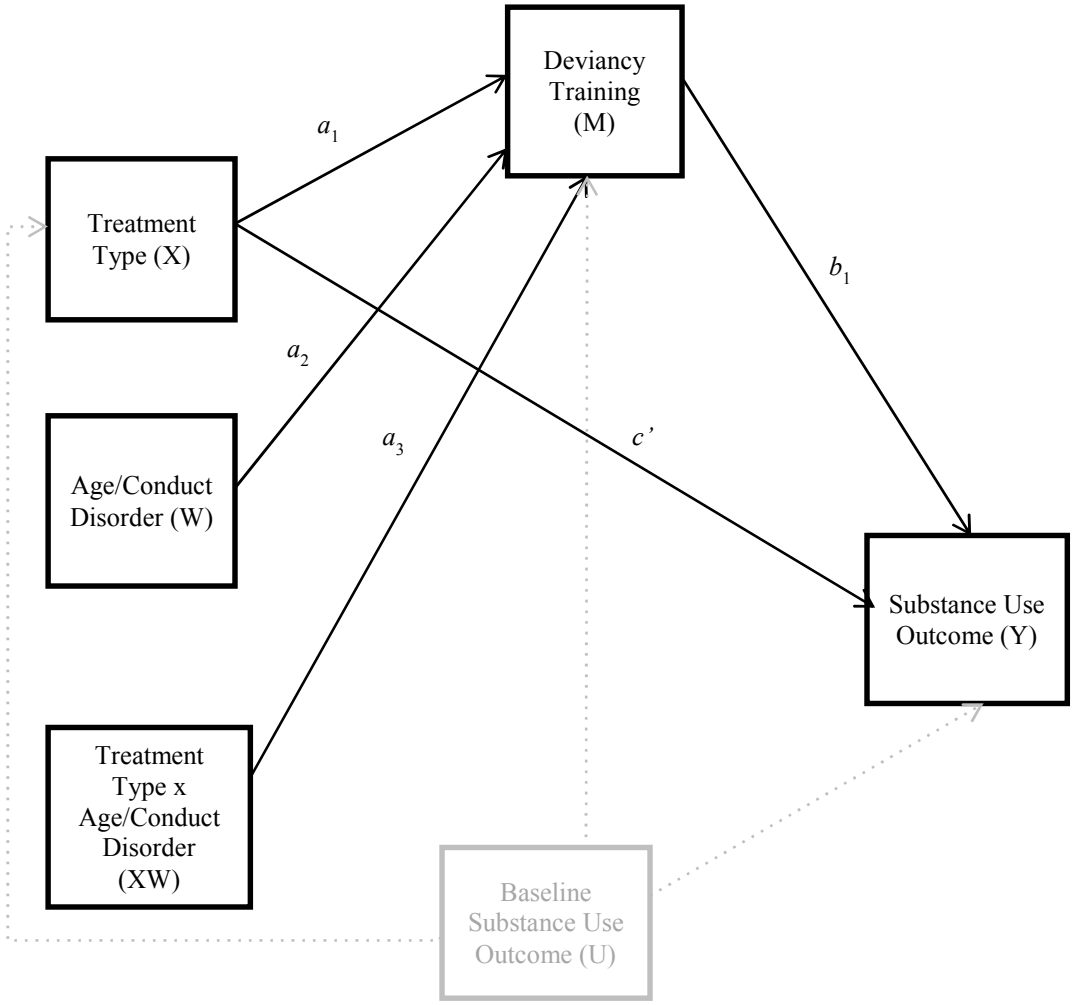

Figure 3b. Statistical Model for Moderated Mediation in the First Stage (X→M).

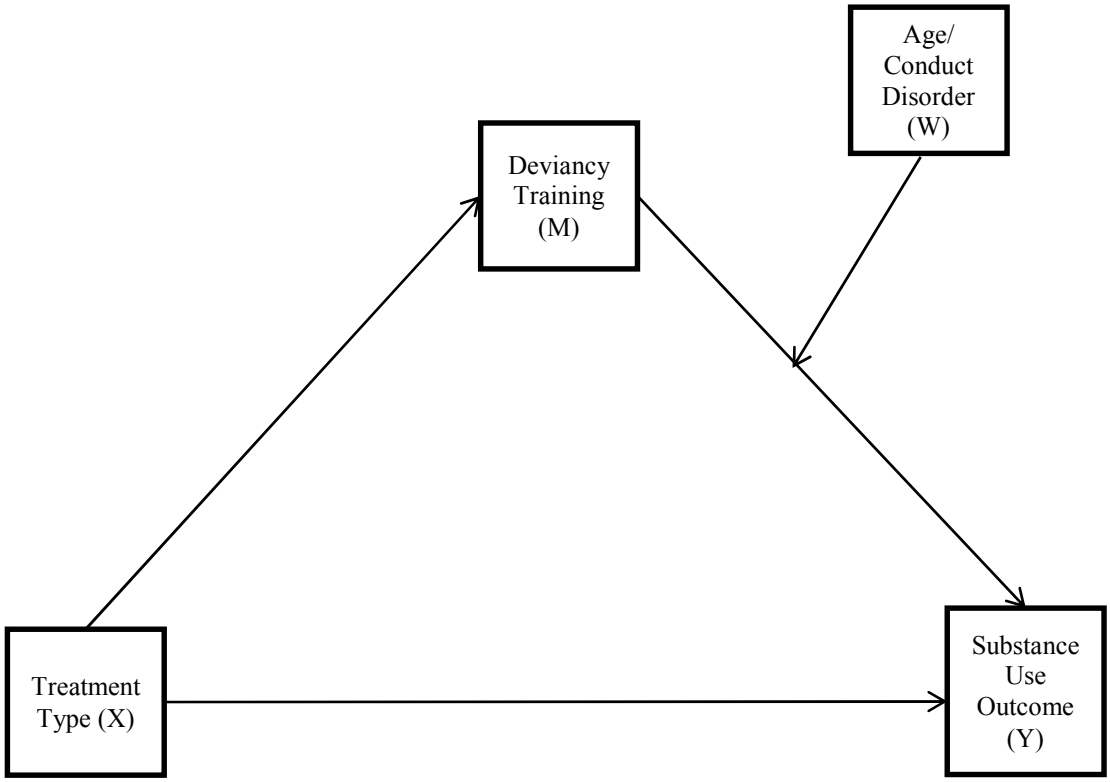

Figure 4a. Conceptual Model for Moderated Mediation in the Second Stage (M→Y).

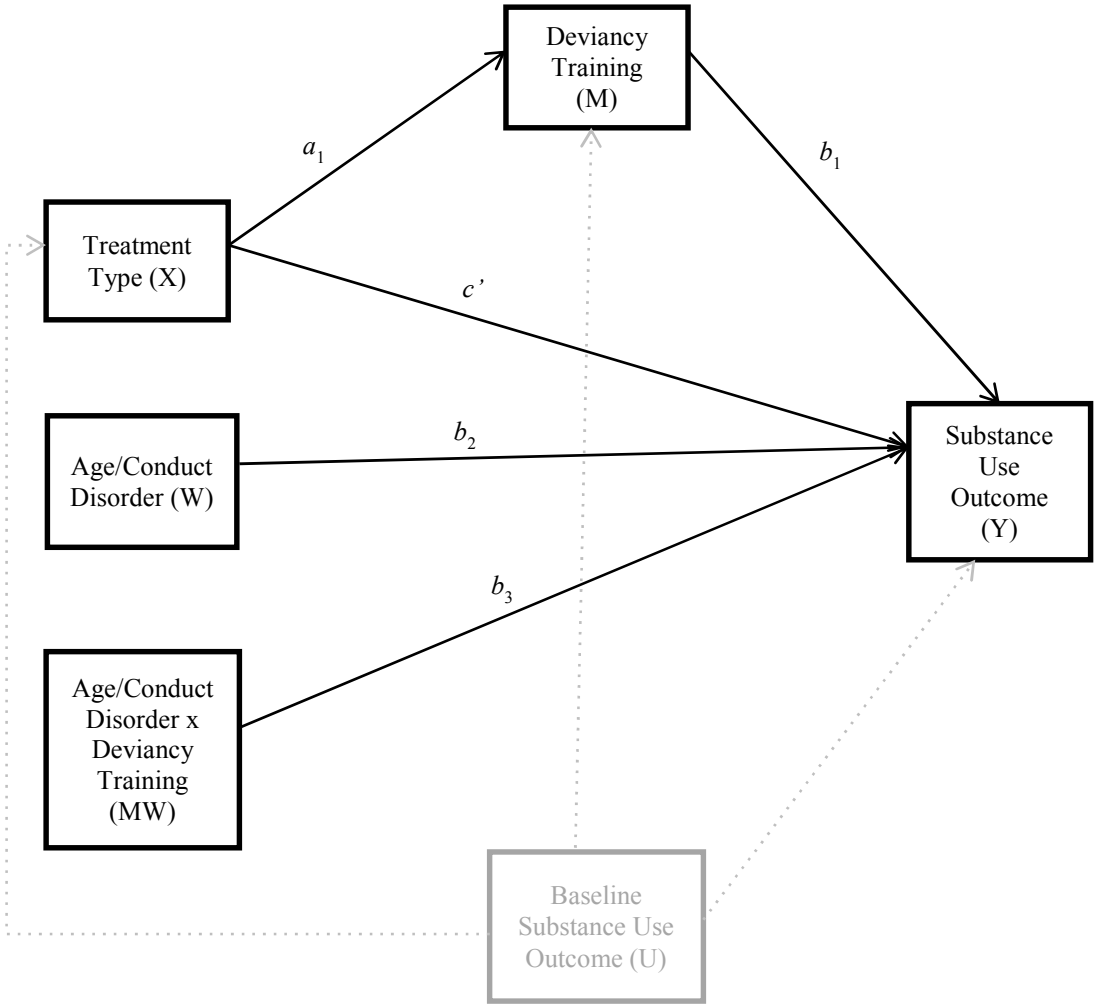

Figure 4b. Statistical Model for Moderated Mediation in the Second Stage (M→Y).

Table 1. Means and Standard Deviations (SD) of Substance Use Variables

Variable Name	*N*	*Mean*	*SD*	*%Δ*[a]	*%Δ*[b]
Baseline					
PHDD	167	11.21	17.29		
DRWK	167	9.92	15.80		
MJWK	167	18.14	20.24		
PRAG	167	1.49	2.21		
3-month follow-up					
PHDD	167	5.68	15.64	-49.33	
DRWK	167	4.48	10.75	-54.84	
MJWK	166	6.64	11.38	-63.40	
PRAG	167	.38	1.36	-74.50	
6-month follow-up					
PHDD	141	7.72	18.22	-31.13	35.92
DRWK	141	5.29	11.14	-46.67	18.08
MJWK	139	6.68	12.55	-63.18	.60
PRAG	141	.30	1.17	-79.87	-21.05

Notes: Data shown are non-transformed. PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; *%Δ*[a] = Percent change from baseline; *%Δ*[a] = Percent change from 3-month follow-up.

Table 2. Correlations Among Substance Use Variables

	BL PHDD	BL DRWK	BL MJFQ	BL PRAG	3m PHDD	3m DRWK	3m MJFQ	3m PRAG	6m PHDD	6m DRWK	6m MJFQ	6m PRAG
BL PHDD	-	.903**	.205**	.394**	.280**	.335**	.093	.279**	.236**	.247**	.019	.231**
BL DRWK		-	.227**	.417**	.284**	.316**	.073	.279**	.214*	.239**	.036	.219**
BL MJFQ			-	.168*	.102	.094	.310**	.133	.167*	.160	.235**	.192*
BL PRAG				-	.296**	.367**	.143	.457**	.238**	.277**	.086	.304**
3m PHDD					-	.904**	.371**	.394**	.569**	.553**	.254**	.242**
3m DRWK						-	.451**	.562**	.631**	.674**	.381**	.392**
3m MJFQ							-	.324**	.333**	.414**	.651**	.374**
3m PRAG								-	.295**	.396**	.344**	.633**
6m PHDD									-	.926**	.387**	.500**
6m DRWK										-	.505**	.596**
6m MJFQ											-	.568**
6m PRAG												-

Notes. Data shown are log-transformed. BL = baseline; 3m = 3-month follow-up; 6m = 6-month follow-up. PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression. * $p < .05$; ** $p < .01$.

Table 3. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Counselor Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 164)			
Deviancy	-.0055	-.0327	.0265
Positive Involvement	.0038	-.0185	.0239
Peer Rejection	-.0004	-.0206	.0203
Praised Behavior	.0019	-.0159	.0183
TOTAL	-.0002	-.0411	.0399
DRWK (*n* = 164)			
Deviancy	-.0050	-.0296	.0263
Positive Involvement	.0029	-.0167	.0208
Peer Rejection	-.0002	-.0183	.0132
Praised Behavior	.0006	-.0177	.0139
TOTAL	-.0018	-.0392	.0325
MJWK (*n* = 163)			
Deviancy	-.0028	-.0268	.0224
Positive Involvement	.0026	-.0142	.0270
Peer Rejection	.0002	-.0190	.0180
Praised Behavior	-.0043	-.0285	.0137
TOTAL	-.0043	-.0433	.0362
PRAG (*n* = 164)			
Deviancy	-.0018	-.0178	.0189
Positive Involvement	-.0025	-.0234	.0124
Peer Rejection	.0001	-.0161	.0132
Praised Behavior	.0023	-.0110	.0174
TOTAL	-.0019	-.0298	.0249

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 4. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Observer Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 156)			
Deviancy	.0044	-.0227	.0320
Positive Involvement	-.0047	-.0328	.0147
Peer Rejection	-.0018	-.0277	.0140
Praised Behavior	.0013	-.0093	.0423
TOTAL	.0093	-.0323	.0470
DRWK (*n* = 156)			
Deviancy	.0092	-.0123	.0339
Positive Involvement	-.0054	-.0362	.0096
Peer Rejection	-.0032	-.0271	.0112
Praised Behavior	.0114	-.0092	.0394
TOTAL	.0120	-.0286	.0482
MJWK (*n* = 155)			
Deviancy	-.0011	-.0286	.0312
Positive Involvement	-.0133	-.0505	.0123
Peer Rejection	.0013	-.0237	.0208
Praised Behavior	.0039	-.0240	.0296
TOTAL	-.0092	-.0573	.0352
PRAG (*n* = 156)			
Deviancy	.0074	-.0105	.0318
Positive Involvement	-.0039	-.0279	.0108
Peer Rejection	-.0024	-.0240	.0097
Praised Behavior	.0007	-.0162	.0183
TOTAL	.0019	-.0325	.0344

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 5. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Adolescent Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 164)			
Deviancy	-.0011	-.0283	.0216
Positive Involvement	.0005	-.0144	.0152
Peer Rejection	.0279	-.0164	.0723
Praised Behavior	.0146	-.0172	.0613
TOTAL	.0418	-.0187	.1072
DRWK (*n* = 164)			
Deviancy	-.0009	-.0263	.0201
Positive Involvement	-.0020	-.0259	.0133
Peer Rejection	.0215	-.0118	.0564
Praised Behavior	.0110	-.0140	.0507
TOTAL	.0294	-.0263	.0892
MJWK (*n* = 163)			
Deviancy	-.0002	-.0118	.0223
Positive Involvement	-.0007	-.0197	.0190
Peer Rejection	.0016	-.0155	.0215
Praised Behavior	-.0070	-.0325	.0169
TOTAL	-.0063	-.0407	.0344
PRAG (*n* = 164)			
Deviancy	-.0001	-.0129	.0117
Positive Involvement	-.0023	-.0249	.0166
Peer Rejection	-.0008	-.0182	.0110
Praised Behavior	-.0006	-.0148	.0122
TOTAL	-.0038	-.0368	.0230

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 6. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Counselor Session 3 form and 6-month follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 139)			
Deviancy	.0074	-.0255	.0578
Positive Involvement	.0108	-.0228	.0435
Peer Rejection	-.0203	-.0666	.0046
Praised Behavior	-.0027	-.0283	.0155
TOTAL	-.0048	-.0663	.0513
DRWK (*n* = 139)			
Deviancy	.0051	-.0198	.0440
Positive Involvement	.0086	-.0201	.0394
Peer Rejection	-.0185	-.0598	.0048
Praised Behavior	-.0037	-.0298	.0126
TOTAL	-.0085	-.0616	.0383
MJWK (*n* = 137)			
Deviancy	.0039	-.0150	.0383
Positive Involvement	.0112	-.0138	.0602
Peer Rejection	.0003	-.0335	.0338
Praised Behavior	-.0048	-.0328	.0179
TOTAL	.0106	-.0344	.0762
PRAG (*n* = 139)			
Deviancy	.0016	-.0060	.0150
Positive Involvement	-.0010	-.0103	.0043
Peer Rejection	.0019	-.0094	.0131
Praised Behavior	-.0003	-.0044	.0053
TOTAL	.0023	-.0129	.0171

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 7. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Observer Session 3 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 132)			
Deviancy	-.0138	-.0723	.0262
Positive Involvement	-.0203	-.0760	.0146
Peer Rejection	.0010	-.0248	.0258
Praised Behavior	.0136	-.0269	.0654
TOTAL	-.0195	-.0983	.0427
DRWK (*n* = 132)			
Deviancy	-.0092	-.0609	.0259
Positive Involvement	-.0164	-.0638	.0148
Peer Rejection	.0027	-.0188	.0269
Praised Behavior	.0130	-.0267	.0629
TOTAL	-.0100	-.0773	.0469
MJWK (*n* = 130)			
Deviancy	-.0034	-.0413	.0362
Positive Involvement	-.0185	-.0667	.0217
Peer Rejection	.0003	-.0273	.0180
Praised Behavior	.0053	-.0213	.0372
TOTAL	-.0162	-.0736	.0380
PRAG (*n* = 132)			
Deviancy	-.0025	-.0222	.0113
Positive Involvement	-.0039	-.0164	.0042
Peer Rejection	.0000	-.0096	.0068
Praised Behavior	.0012	-.0062	.0091
TOTAL	-.0053	-.0297	.0120

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 8. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Adolescent Session 3 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 139)			
Deviancy	-.0021	-.0319	.0143
Positive Involvement	-.0003	-.0203	.0185
Peer Rejection	.0156	-.0224	.0546
Praised Behavior	.0036	-.0196	.0306
TOTAL	.0168	-.0358	.0636
DRWK (*n* = 139)			
Deviancy	-.0012	-.0243	.0119
Positive Involvement	.0004	-.0183	.0204
Peer Rejection	.0120	-.0205	.0455
Praised Behavior	.0017	-.0139	.0227
TOTAL	.0129	-.0335	.0555
MJWK (*n* = 137)			
Deviancy	-.0008	-.0240	.0182
Positive Involvement	.0000	-.0184	.0219
Peer Rejection	.0045	-.0202	.0364
Praised Behavior	-.0013	-.0181	.0220
TOTAL	.0024	-.0358	.0471
PRAG (*n* = 139)			
Deviancy	.0001	-.0061	.0067
Positive Involvement	.0000	-.0052	.0076
Peer Rejection	-.0018	-.0135	.0042
Praised Behavior	-.0002	-.0051	.0054
TOTAL	-.0019	-.0142	.0086

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 9. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Counselor Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 159)			
Deviancy	-.0130	-.0554	.0274
Positive Involvement	-.0132	-.0600	.0078
Peer Rejection	.0024	-.0225	.0280
Praised Behavior	.0010	-.0184	.0192
TOTAL	-.0227	-.0914	.0305
DRWK (*n* = 159)			
Deviancy	-.0082	-.0478	.0261
Positive Involvement	-.0075	-.0408	.0078
Peer Rejection	.0023	-.0230	.0285
Praised Behavior	.0022	-.0128	.0209
TOTAL	-.0111	-.0692	.0336
MJWK (*n* = 158)			
Deviancy	-.0253	-.0761	.0055
Positive Involvement	-.0079	-.0435	.0105
Peer Rejection	-.0002	-.0237	.0161
Praised Behavior	-.0097	-.0427	.0130
TOTAL	-.0431	-.1067	.0037
PRAG (*n* = 159)			
Deviancy	-.0011	-.0138	.0122
Positive Involvement	.0029	-.0045	.0120
Peer Rejection	-.0003	-.0076	.0047
Praised Behavior	.0021	-.0042	.0122
TOTAL	.0036	-.0127	.0203

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 10. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Observer Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 112)			
Deviancy	-.0151	-.0701	.0152
Positive Involvement	.0019	-.0170	.0312
Peer Rejection	-.0149	-.0663	.0303
Praised Behavior	.0013	-.0297	.0362
TOTAL	-.0267	-.1076	.0382
DRWK (*n* = 112)			
Deviancy	-.0109	-.0594	.0121
Positive Involvement	.0016	-.0173	.0289
Peer Rejection	-.0120	-.0596	.0260
Praised Behavior	.0007	-.0310	.0318
TOTAL	-.0206	-.0912	.0381
MJWK (*n* = 111)			
Deviancy	-.0043	-.0603	.0102
Positive Involvement	-.0042	-.0342	.0252
Peer Rejection	-.0043	-.0436	.0209
Praised Behavior	-.0006	-.0372	.0350
TOTAL	-.0134	-.0920	.0355
PRAG (*n* = 112)			
Deviancy	-.0068	-.0882	.0150
Positive Involvement	.0059	-.0113	.0402
Peer Rejection	-.0049	-.0309	.0160
Praised Behavior	.0013	-.0230	.0311
TOTAL	-.0046	-.0907	.0511

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 11. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Adolescent Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 158)			
Deviancy	-.0099	-.0486	.0144
Positive Involvement	.0002	-.0176	.0180
Peer Rejection	.0131	-.0105	.0642
Praised Behavior	-.0061	-.0486	.0126
TOTAL	-.0027	-.0539	.0491
DRWK (*n* = 158)			
Deviancy	-.0059	-.0369	.0171
Positive Involvement	-.0016	-.0243	.0153
Peer Rejection	.0064	-.0144	.0334
Praised Behavior	-.0083	-.0537	.0115
TOTAL	-.0094	-.0635	.0299
MJWK (*n* = 157)			
Deviancy	.0126	-.0094	.0522
Positive Involvement	-.0024	-.0277	.0184
Peer Rejection	-.0068	-.0326	.0166
Praised Behavior	-.0004	-.0217	.0233
TOTAL	.0030	-.0356	.0519
PRAG (*n* = 158)			
Deviancy	.0048	-.0129	.0318
Positive Involvement	.0008	-.0125	.0144
Peer Rejection	-.0019	-.0431	.0099
Praised Behavior	-.0083	-.0432	.0160
TOTAL	-.0045	-.0558	.0309

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 12. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Counselor Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 134)			
Deviancy	-.0165	-.0771	.0268
Positive Involvement	-.0045	-.0328	.0151
Peer Rejection	.0006	-.0288	.0270
Praised Behavior	-.0091	-.0399	.0181
TOTAL	-.0295	-.1046	.0269
DRWK (*n* = 134)			
Deviancy	-.0077	-.0566	.0364
Positive Involvement	-.0022	-.0284	.0150
Peer Rejection	.0003	-.0250	.0208
Praised Behavior	-.0051	-.0303	.0213
TOTAL	-.0146	-.0749	.0357
MJWK (*n* = 132)			
Deviancy	.0085	-.0236	.0489
Positive Involvement	-.0042	-.0358	.0145
Peer Rejection	.0001	-.0228	.0165
Praised Behavior	-.0199	-.0629	.0147
TOTAL	-.0155	-.0782	.0382
PRAG (*n* = 134)			
Deviancy	-.0033	-.0194	.0076
Positive Involvement	.0027	-.0068	.0133
Peer Rejection	-.0006	-.0148	.0082
Praised Behavior	.0032	-.0031	.0177
TOTAL	.0021	-.0206	.0227

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 13. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Observer Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 95)			
Deviancy	.0000	-.0453	.0270
Positive Involvement	-.0032	-.0388	.0312
Peer Rejection	-.0058	-.0634	.0265
Praised Behavior	.0006	-.0312	.0395
TOTAL	-.0083	-.0859	.0548
DRWK (*n* = 95)			
Deviancy	.0003	-.0461	.0260
Positive Involvement	-.0047	-.0380	.0255
Peer Rejection	-.0030	-.0462	.0246
Praised Behavior	-.0001	-.0275	.0336
TOTAL	-.0075	-.0752	.0480
MJWK (*n* = 93)			
Deviancy	-.0024	-.0777	.0137
Positive Involvement	-.0171	-.0730	.0330
Peer Rejection	-.0039	-.0513	.0264
Praised Behavior	-.0039	-.0424	.0287
TOTAL	-.0273	-.1245	.0395
PRAG (*n* = 95)			
Deviancy	-.0008	-.0289	.0081
Positive Involvement	.0007	-.0066	.0140
Peer Rejection	.0012	-.0120	.0139
Praised Behavior	.0012	-.0061	.0182
TOTAL	.0023	-.0291	.0289

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 14. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training, Positive Group Involvement, Peer Rejection, and Therapist-Praised Positive Behavior: Adolescent Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 134)			
Deviancy	-.0080	-.0479	.0161
Positive Involvement	-.0005	-.0258	.0321
Peer Rejection	.0020	-.0228	.0469
Praised Behavior	.0099	-.0192	.0446
TOTAL	.0033	-.0497	.0567
DRWK (*n* = 134)			
Deviancy	.0024	-.0240	.0285
Positive Involvement	-.0005	-.0214	.0275
Peer Rejection	.0017	-.0244	.0390
Praised Behavior	.0021	-.0232	.0290
TOTAL	.0057	-.0382	.0563
MJWK (*n* = 132)			
Deviancy	.0169	-.0150	.0644
Positive Involvement	.0005	-.0168	.0246
Peer Rejection	-.0007	-.0223	.0207
Praised Behavior	-.0042	-.0341	.0272
TOTAL	.0125	-.0289	.0678
PRAG (*n* = 134)			
Deviancy	.0021	-.0046	.0161
Positive Involvement	-.0002	-.0068	.0056
Peer Rejection	-.0003	-.0209	.0056
Praised Behavior	.0001	-.0094	.0115
TOTAL	.0016	-.0187	.0172

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 15. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Counselor Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 164)			
Deviancy	-.0051	-.0321	.0251
DRWK (n = 164)			
Deviancy	-.0049	-.0301	.0228
MJWK (n = 163)			
Deviancy	-.0035	-.0300	.0218
PRAG (n = 164)			
Deviancy	-.0021	-.0178	.0156

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 16. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Observer Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 156)			
Deviancy	.0037	-.0220	.0299
DRWK (n = 156)			
Deviancy	.0080	-.0124	.0319
MJWK (n = 155)			
Deviancy	-.0050	-.0334	.0261
PRAG (n = 156)			
Deviancy	.0057	-.0120	.0287

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 17. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Adolescent Session 3 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 164)			
Deviancy	-.0009	-.0263	.0192
DRWK (n = 164)			
Deviancy	-.0009	-.0284	.0202
MJWK (n = 163)			
Deviancy	-.0001	-.0108	.0204
PRAG (n = 164)			
Deviancy	.0001	-.0115	.0103

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 18. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Counselor Session 3 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 139)			
Deviancy	.0062	-.0234	.0484
DRWK (n = 139)			
Deviancy	.0038	-.0151	.0357
MJWK (n = 137)			
Deviancy	.0046	-.0134	.0386
PRAG (n = 139)			
Deviancy	.0040	-.0129	.0308

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 19. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Observer Session 3 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 132)			
Deviancy	-.0174	-.0759	.0191
DRWK (n = 132)			
Deviancy	-.0116	-.0599	.0206
MJWK (n = 130)			
Deviancy	-.0083	-.0461	.0274
PRAG (n = 132)			
Deviancy	-.0080	-.0546	.0207

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 20. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Adolescent Session 3 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 139)			
Deviancy	-.0013	-.0301	.0124
DRWK (n = 139)			
Deviancy	-.0008	-.0267	.0108
MJWK (n = 137)			
Deviancy	.0000	-.0179	.0167
PRAG (n = 139)			
Deviancy	.0000	-.0121	.0113

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 21. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Counselor Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 159)			
Deviancy	-.0144	-.0536	.0243
DRWK (*n* = 159)			
Deviancy	-.0053	-.0373	.0288
MJWK (*n* = 158)			
Deviancy	-.0295	-.0818	.0027
PRAG (*n* = 159)			
Deviancy	-.0041	-.0315	.0220

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 22. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Observer Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 112)			
Deviancy	-.0091	-.0584	.0131
DRWK (*n* = 112)			
Deviancy	-.0058	-.0480	.0133
MJWK (*n* = 111)			
Deviancy	-.0024	-.0547	.0115
PRAG (*n* = 112)			
Deviancy	-.0056	-.0919	.0147

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 23. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Adolescent Session 10 Form and 3-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 159)			
Deviancy	-.0115	-.0481	.0143
DRWK (*n* = 159)			
Deviancy	-.0112	-.0431	.0135
MJWK (*n* = 158)			
Deviancy	.0037	-.0120	.0362
PRAG (*n* = 159)			
Deviancy	.0005	-.0154	.0190

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 24. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Counselor Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (*n* = 134)			
Deviancy	-.0127	-.0639	.0272
DRWK (*n* = 134)			
Deviancy	-.0046	-.0469	.0311
MJWK (*n* = 132)			
Deviancy	.0079	-.0226	.0477
PRAG (*n* = 134)			
Deviancy	-.0115	-.0474	.0106

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 25. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Observer Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 95)			
Deviancy	.0034	-.0381	.0037
DRWK (n = 95)			
Deviancy	.0027	-.0373	.0290
MJWK (n = 93)			
Deviancy	-.0002	-.0061	.0150
PRAG (n = 95)			
Deviancy	-.0041	-.0663	.0129

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 26. Mediation of the Effect of Treatment Type on Substance Use Outcomes Through Deviancy Training: Adolescent Session 10 Form and 6-month Follow-up

	Point Estimate	Percentile 95% CI Lower	Upper
PHDD (n = 134)			
Deviancy	-.0056	-.0384	.0205
DRWK (n = 134)			
Deviancy	.0028	-.0187	.0315
MJWK (n = 132)			
Deviancy	.0155	-.0154	.0601
PRAG (n = 134)			
Deviancy	.0035	-.0116	.0313

Notes: PHDD = percentage of heavy drinking days; DRWK = average number of drinks per week; MJWK = average number of marijuana uses per week; PRAG = alcohol-related predatory aggression; Point Estimate = indirect effect of treatment on outcome through Mediator$_i$.

Table 27. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 3-month Follow-up with Age in First Stage (n=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0516	-.3025, .1993	c'	-.0644	-.2184, .0895
		(.1270)			(.0779)	
Deviancy (M)				b_1	.0880	-.0073, .1832
					(.0482)	
Age (W)	a_2	-.0379	-.1559, .0800			
		(.0597)				
X × W	a_3	.1977	-.0412, .4365			
		(.1209)				
BL PHDD (U)	a_4	.1180	-.0901, .3262	b_2	.2337***	.1070, .3605
		(.1054)			(.0642)	
Constant	i_M	1.0357***	.8434, 1.2280	i_Y	.0944	-.0600, .2487
		(.0974)			(.0782)	
		R^2 = .0246			R^2 = .1042	
		$F(4, 159) = 1.0045$, $p = .4070$			$F(3, 160) = 6.2028$, $p = .0005$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* $p < .05$; ** $p < .01$; *** $p < .001$

Table 28. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0470	-.2980, .2040	c'	-.0384	-.1780, .1011
		(.1271)			(.0707)	
Deviancy (M)				b_1	.0886*	.0022, .1749
					(.0437)	
Age (W)	a_2	-.0425	-.1608, .0757			
		(.0599)				
X × W	a_3	.2056	-.0346, .4457			
		(.1216)				
BL DRWK (U)	a_4	.1475	-.0877, .3827	b_2	.2722***	.1434, 4009
		(.1191)			(.0652)	
Constant	i_M	1.0133***	.8040, 1.2226	i_Y	.0684	-.0776, .2143
		(.1060)			(.0739)	
		R^2 = .0263			R^2 = .1283	
		$F(4, 159) = 1.0755$, $p = .3705$			$F(3, 160) = 7.8512$, $p = .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* $p < .05$; ** $p < .01$; *** $p < .001$

Table 29. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0354	-.2870, .2163	c'	-.1144	-.2719, .0431
		(.1274)			(.0798)	
Deviancy (M)				b_1	.0805	-.0171, .1780
					(.0494)	
Age (W)	a_2	-.0413	-.1592, .0765			
		(.0597)				
X × W	a_3	.1946	-.0442, .4334			
		(.1209)				
BL MJWK (U)	a_4	.0259	-.2050, .2568	b_2	.3253***	.1825, .4682
		(.1169)			(.0723)	
Constant	i_M	1.0828***	.8160, 1.3496	i_Y	.0689	-.1286, .2663
		(.1351)			(.1000)	
		$R^2 = .0195$			$R^2 = .1419$	
		$F(4, 158) = .7847$, $p = .5367$			$F(3, 159) = 8.7630$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 30. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0303	-.2819, .2213	c'	.0639	-.0582, .1859
		(.1274)			(.0618)	
Deviancy (M)				b_1	.0504	-.0249, .1258
					(.0382)	
Age (W)	a_2	-.0534	-.1726, .0658			
		(.0603)				
X × W	a_3	.1972	-.0393, .4336			
		(.1197)				
BL PRAG (U)	a_4	.1494	-.0310, .3299	b_2	.2879***	.2013, .3744
		(.0914)			(.0438)	
Constant	i_M	1.0223***	.8519, 1.1927	i_Y	-.0775	-.1911, .0361
		(.0863)			(.0575)	
		$R^2 = .0332$			$R^2 = .2282$	
		$F(4, 159) = 1.3657$, $p = .2482$			$F(3, 160) = 15.7709$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 31. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=156).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1894*	-.3536, -.0252	c'	-.0572	-.2203, .1060
		(.0831)			(.0826)	
Deviancy (M)				b_1	-.0190	-.1748, .1367
					(.0788)	
Age (W)	a_2	-.0604	-.1362, .0154			
		(.0384)				
X × W	a_3	.0188	-.1342, .1719			
		(.0774)				
BL PHDD (U)	a_4	.0404	-.0954, .1762	b_2	.2350***	.1032, .3668
		(.0687)			(.0667)	
Constant	i_M	.3285***	.2035, .4536	i_Y	.1961	.0641, .3280
		(.0633)			(.0668)	
		R^2 = .0523			R^2 = .0790	
		$F(4, 151) = 2.0825$, $p = .0858$			$F(3, 152) = 4.3462$, $p = .0057$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 32. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=156).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1902*	-.3548, -.0256	c'	-.0237	-.1705, .1231
		(.0833)			(.0743)	
Deviancy (M)				b_1	-.0409	-.1808, .0990
					(.0708)	
Age (W)	a_2	-.0606	-.1367, .0155			
		(.0385)				
X × W	a_3	.0161	-.1378, .1700			
		(.0779)				
BL DRWK (U)	a_4	.0164	-.1369, .1696	b_2	.2682***	.1357, .4006
		(.0776)			(.0671)	
Constant	i_M	.3449***	.2083, .4816	i_Y	.1762**	.0478, .3045
		(.0692)			(.0650)	
		R^2 = .0504			R^2 = .0979	
		$F(4, 151) = 2.0032$, $p = .0969$			$F(3, 152) = 5.5005$, $p = .0013$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 33. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=155).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1888*	-.3548, -.0229	c'	-.1095	-.2786, .0595
		(.0840)			(.0856)	
Deviancy (M)				b_1	.0261	-.1344, .1866
					(.0812)	
Age (W)	a_2	-.0566	-.1327, .0195			
		(.0385)				
X × W	a_3	.0194	-.1346, .1734			
		(.0779)				
BL MJWK (U)	a_4	.0592	-.0925, .2110	b_2	.3289***	.1784, .4794
		(.0768)			(.0762)	
Constant	i_M	.2987***	.1249, .4724	i_Y	.1552	-.0232, .3336
		(.0879)			(.0903)	
		R^2 = .0548			R^2 = .1294	
		$F(4, 150) = 2.1731$, $p = .0747$			$F(3, 151) = 7.4835$, $p = .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 34. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=156).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1826*	-.3476, -.0176	c'	.0764	-.0509, .2036
		(.0835)			(.0644)	
Deviancy (M)				b_1	-.0302	-.1512, .0908
					(.0612)	
Age (W)	a_2	-.0654	-.1430, .0113			
		(.0388)				
X × W	a_3	.0216	-.1312, .1744			
		(.0773)				
BL PRAG (U)	a_4	.0535	-.0653, .1723	b_2	.3058***	.2172, .3945
		(.0601)			(.0449)	
Constant	i_M	.3228***	.2116, .4339	i_Y	-.0218	-.1146, .0710
		(.0562)			(.0470)	
		R^2 = .0551			R^2 = .2353	
		$F(4, 151) = 2.1999$, $p = .0716$			$F(3, 152) = 15.5926$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 35. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0161	-.2739, .2418	c'	-.0686	-.2232, .0860
		(.1306)			(.0783)	
Deviancy (M)				b_1	.0607	-.0331, .1545
					(.0475)	
Age (W)	a_2	.0130	-.1082, .1343			
		(.0614)				
X × W	a_3	.1062	-.1392, .3517			
		(.1243)				
BL PHDD (U)	a_4	.2852**	.0713, .4991	b_2	.2253***	.0957, .3550
		(.1083)			(.0656)	
Constant	i_M	.5606***	.3630, .7582	i_Y	.1528*	.0957, .3550
		(.1001)			(.0656)	
		$R^2 = .0438$			$R^2 = .0948$	
		$F(4, 159) = 1.8214$, $p = .1273$			$F(3, 160) = 5.5847$, $p = .0011$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 36. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0123	-.2730, .2484	c'	-.0424	-.1826, .0977
		(.1320)			(.0710)	
Deviancy (M)				b_1	.0670	-.0172, .1512
					(.0426)	
Age (W)	a_2	.0067	-.1162, .1295			
		(.0622)				
X × W	a_3	.1034	-.1461, .3528			
		(.1263)				
BL DRWK (U)	a_4	.2385	-.0058, .4828	b_2	.2667***	.1363, .3970
		(.1237)			(.0660)	
Constant	i_M	.5905***	.3731, .8078	i_Y	.1207	-.0052, .2465
		(.1101)			(.0637)	
		$R^2 = .0249$			$R^2 = .1196$	
		$F(4, 159) = 1.0149$, $p = .4015$			$F(3, 160) = 7.2421$, $p = .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 37. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0154	-.2802, .2494	c'	-.1178	-.2766, .0410
		(.1341)			(.0804)	
Deviancy (M)				b_1	.0062	-.0880, .1004
					(.0894)	
Age (W)	a_2	.0198	-.1042, .1438			
		(.0628)				
X × W	a_3	.0810	-.1702, .3323			
		(.1272)				
BL MJWK (U)	a_4	.1401	-.1028, .3830	b_2	.3246***	.1801, .4691
		(.1230)			(.0732)	
Constant	i_M	.6175***	.3368, .8983	i_Y	.1546	-.0220, .3313
		(.1421)			(.0894)	
		$R^2 = .0102$			$R^2 = .1276$	
		$F(4, 158) = .4081$, $p = .8027$			$F(3, 159) = 7.7550$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 38. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 3-month Follow-up with Age in First Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0240	-.2334, .2814	c'	.0616	-.0610, .1843
		(.1303)			(.0621)	
Deviancy (M)				b_1	.0074	-.0673, .0821
					(.0378)	
Age (W)	a_2	-.0169	-.1388, .1050			
		(.0617)				
X × W	a_3	.0966	-.1453, .3384			
		(.1225)				
BL PRAG (U)	a_4	.2949**	.1103, .4795	b_2	.2919***	.2028, .3810
		(.0935)			(.0451)	
Constant	i_M	.5708***	.3965, .7451	i_Y	-.0291	-.1221, .0639
		(.0883)			(.0471)	
		$R^2 = .0609$			$R^2 = .2200$	
		$F(4, 159) = 2.5770$, $p = .0396$			$F(3, 160) = 15.0405$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 39. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0642	-.1987, .3271	c'	-.2382*	-.4240, -.0525
		(.1329)			(.0939)	
Deviancy (M)				b_1	.1004	-.0190, .2098
					(.0604)	
Age (W)	a_2	-.0188	-.1369, .0994			
		(.0597)				
X × W	a_3	.2125	-.0284, .4535			
		(.1218)				
BL PHDD (U)	a_4	.1367	-.0800, .3534	b_2	.2161**	.0652, .3670
		(.1096)			(.0763)	
Constant	i_M	.9978***	.7942, 1.2014	i_Y	.1532	-.0344, .3408
		(.1029)			(.0948)	
		R^2 = .0303			R^2 = .1167	
		$F(4, 134) = 1.0454$, $p = .3863$			$F(3, 135) = 5.9464$, $p = .0008$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 40. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0683	-.1939, .3305	c'	-.1414	-.3071, .0241
		(.1326)			(.0838)	
Deviancy (M)				b_1	.0588	-.0479, .1654
					(.0539)	
Age (W)	a_2	-.0249	-.1430, .0932			
		(.0597)				
X × W	a_3	.2238	-.0178, .4654			
		(.1222)				
BL DRWK (U)	a_4	.1875	-.0559, .4309	b_2	.2187**	.0680, .3694
		(.1230)			(.0762)	
Constant	i_M	.9592***	.7386, 1.1798	i_Y	.1797*	.0064, .3529
		(.1115)			(.0876)	
		R^2 = .0357			R^2 = .0882	
		$F(4, 134) = 1.2402$, $p = .2969$			$F(3, 135) = 4.3549$, $p = .0058$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 41. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0946	-.1710, .3602	c'	-.0060	-.1871, .1751
		(.1343)			(.0915)	
Deviancy (M)				b_1	.0529	-.0632, .1689
					(.0587)	
Age (W)	a_2	-.0245	-.1430, .0941			
		(.0599)				
X × W	a_3	.2075	-.0324, .4475			
		(.1213)				
BL MJWK (U)	a_4	.0679	-.1744, .3103	b_2	.2436**	.0806, .4066
		(.1225)			(.0824)	
Constant	i_M	1.0164***	.7384, 1.2944	i_Y	.1911	-.0321, .4142
		(.1405)			(.1128)	
		R^2 = .0261			R^2 = .0686	
		$F(4, 132)$ = .8832, p = .4760			$F(3, 133)$ = 3.2656, p = .0235	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 42. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0814	-.1824, .3451	c'	-.0486	-.1784, .0812
		(.1334)			(.0656)	
Deviancy (M)				b_1	.0535	-.0298, .1367
					(.0421)	
Age (W)	a_2	-.0356	-.1558, .0847			
		(.0608)				
X × W	a_3	.1980	-.0392, .4351			
		(.1199)				
BL PRAG (U)	a_4	.1357	-.0556, .3269	b_2	.1809***	.0882, .2737
		(.0967)			(.0469)	
Constant	i_M	1.0060***	.8236, 1.1885	i_Y	-.0502	-.1734, .0729
		(.0922)			(.0623)	
		R^2 = .0332			R^2 = .1221	
		$F(4, 134)$ = 1.1499, p =.3360			$F(3, 135)$ = 6.2566, p = .0005	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 43. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=132).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1816	-.3663, .0031	c'	-.2370*	-.4305, -.0434
		(.0933)			(.0978)	
Deviancy (M)				b_1	.0931	-.0863, .2724
					(.0906)	
Age (W)	a_2	-.0688	-.1511, .0136			
		(.0416)				
X × W	a_3	.0286	-.1389, .1961			
		(.0846)				
BL PHDD (U)	a_4	.0389	-.1135, .1912	b_2	.1791*	.0240, .3342
		(.0770)			(.0784)	
Constant	i_M	.3321***	.1887, .4755	i_Y	.2485**	.0904, .4066
		(.0725)			(.0799)	
		$R^2 = .0529$			$R^2 = .0966$	
		$F(4, 127) = 1.7727$, $p = .1384$			$F(3, 128) = 4.5633$, $p = .0045$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 44. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=132).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1823	-.3673, .0027	c'	-.1395	-.3114, .0323
		(.0935)			(.0868)	
Deviancy (M)				b_1	.0616	-.0974, .2206
					(.0804)	
Age (W)	a_2	-.0693	-.1518, .0133			
		(.0417)				
X × W	a_3	.0221	-.1462, .1905			
		(.0851)				
BL DRWK (U)	a_4	.0044	-.1667, .1755	b_2	.1912*	.0377, .3447
		(.0865)			(.0776)	
Constant	i_M	.3569***	.2008, .5129	i_Y	.2375**	.0855, .3896
		(.0789)			(.0769)	
		$R^2 = .0510$			$R^2 = .0727$	
		$F(4, 127) = 1.7062$, $p = .1526$			$F(3, 128) = 3.3466$, $p = .0213$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 45. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=130).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1839	-.3722, .0044	c'	.0088	-.1842, .2019
		(.0951)			(.0975)	
Deviancy (M)				b_1	.0440	-.1332, .2211
					(.0895)	
Age (W)	a_2	-.0632	-.1465, .0200			
		(.0421)				
X × W	a_3	.0317	-.1365, .1998			
		(.0849)				
BL MJWK (U)	a_4	.0665	-.1049, .2380	b_2	.2515**	.0804, .4226
		(.0866)			(.0865)	
Constant	i_M	.2932**	.0979, .4885	i_Y	.2285*	.0275, .4295
		(.0987)			(.1016)	
		$R^2 = .0571$			$R^2 = .0674$	
		$F(4, 125) = 1.8921$, $p = .1159$			$F(3, 126) = 3.0344$, $p = .0317$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 46. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=132).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1784	-.3639, .0072	c'	-.0410	-.1792, .0973
		(.0938)			(.0699)	
Deviancy (M)				b_1	.0429	-.0846, .1704
					(.0645)	
Age (W)	a_2	-.0725	-.1561, .0111			
		(.0423)				
X × W	a_3	.0255	-.1406, .1915			
		(.0839)				
BL PRAG (U)	a_4	.0311	-.1042, .1664	b_2	.2007***	.1032, .2981
		(.0684)			(.0492)	
Constant	i_M	.3397***	.2117, .4677	i_Y	-.0118	-.1152, .0916
		(.0647)			(.0522)	
		$R^2 = .0525$			$R^2 = .1250$	
		$F(4, 127) = 1.7600$, $p = .1410$			$F(3, 128) = 6.0928$, $p = .0007$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 47. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0463	-.3125, .2198	c'	-.2308*	-.4182, -.0433
		(.1346)			(.0948)	
Deviancy (M)				b_1	.0287	-.0909, .1483
					(.0605)	
Age (W)	a_2	.0211	-.0985, .1408			
		(.0605)				
X × W	a_3	.1567	-.0873, .4007			
		(.1234)				
BL PHDD (U)	a_4	.3103**	.0909, .5297	b_2	.2181**	.0626, .3737
		(.1109)			(.0787)	
Constant	i_M	.5411***	.3350, .7472	i_Y	.2403**	.0821, .3985
		(.1042)			(.0800)	
		$R^2 = .0607$			$R^2 = .1001$	
		$F(4, 134) = 2.1654$, $p = .0763$			$F(3, 135) = 5.0078$, $p = .0025$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 48. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0411	-.3099, .2278	c'	-.1368	-.3031, .0294
		(.1359)			(.0840)	
Deviancy (M)				b_1	.0206	-.0845, .1257
					(.0532)	
Age (W)	a_2	.0115	-.1095, .1326			
		(.0612)				
X × W	a_3	.1522	-.0955, .3999			
		(.1252)				
BL DRWK (U)	a_4	.2847*	.0352, .5342	b_2	.2216**	.0686, .3745
		(.1262)			(.0773)	
Constant	i_M	.5562***	.3301, .7824	i_Y	.2265**	.0764, .3766
		(.1144)			(.0759)	
		$R^2 = .0423$			$R^2 = .0812$	
		$F(4, 134) = 1.4783$, $p = .2123$			$F(3, 135) = 3.9788$, $p = .0094$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 49. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0348	-.3127, .2430	c'	-.0013	-.1827, .1801
		(.1405)			(.0917)	
Deviancy (M)				b_1	.0014	-.1107, .1135
					(.0567)	
Age (W)	a_2	.0248	-.0992, .1488			
		(.0627)				
X × W	a_3	.1151	-.1359, .3662			
		(.1269)				
BL MJWK (U)	a_4	.1519	-.1017, .4054	b_2	.2455**	.0814, .4096
		(.1282			(.0830)	
Constant	i_M	.6102***	.3194, .9010	i_Y	.2459*	.0455, .4462
		(.1470)			(.1013)	
		R^2 = .0164			R^2 = .0629	
		$F(4, 132)$ = .5496, p = .6997			$F(3, 133)$ = 2.9769, p = .0339	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 50. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 6-month Follow-up with Age in First Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0142	-.2826, .2542	c'	-.0447	-.1751, .0858
		(.1357)			(.0660)	
Deviancy (M)				b_1	-.0018	-.0847, .0811
					(.0419)	
Age (W)	a_2	-.0109	-.1332, .1114			
		(.0619)				
X × W	a_3	.1184	-.1229, .3596			
		(.1220)				
BL PRAG (U)	a_4	.2575**	.0629, .4522	b_2	.1875***	.0924, .2825
		(.0984)			(.0480)	
Constant	i_M	.5932***	.4076, .7788	i_Y	.0057	-.0966, .1080
		(.0938)			(.0517)	
		R^2 = .0542			R^2 = .1116	
		$F(4, 134)$ = 1.9204, p =.1106			$F(3, 135)$ = 5.6526, p = .0011	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 51. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 3-month Follow-up with Age in First Stage (*n*=159).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3347* (.1384)	-.6082, -.0613	c'	-.0538 (.0825)	-.2168, .1093
Deviancy (M)				b_1	.0425 (.0470)	-.0505, .1354
Age (W)	a_2	-.0503 (.0652)	-.1792, .0785			
X × W	a_3	.0804 (.1320)	-.1805, .3412			
BL PHDD (U)	a_4	.3942*** (.1138)	.1695, .6190	b_2	.2052** (.0682)	.0704, .3400
Constant	i_M	1.0216*** (.1057)	.8128, 1.12304	i_Y	.1664* (.0782)	.0120, .3208
		R^2 = .1081			R^2 = .0768	
		$F(4, 154) = 4.6663$, $p = .0014$			$F(3, 155) = 4.3000$, $p = .0060$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 52. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 3-month Follow-up with Age in First Stage (*n*=159).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3279* (.1401)	-.6047, -.0511	c'	-.0395 (.0752)	-.1879, .1090
Deviancy (M)				b_1	.0160 (.0423)	-.0677, .0996
Age (W)	a_2	-.0611 (.0663)	-.1920, .0698			
X × W	a_3	.0835 (.1345)	-.1822, .3492			
BL DRWK (U)	a_4	.3721** (.1303)	.1146, .6296	b_2	.2523*** (.0688)	.1163, .3883
Constant	i_M	1.0318*** (.1167)	.8011, 1.2624	i_Y	.1690 (.0751)	.0207, .3173
		R^2 = .0869			R^2 = .0901	
		$F(4, 154) = 3.6633$, $p = .0070$			$F(3, 155) = 5.1162$, $p = .0021$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 53. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 3-month Follow-up with Age in First Stage (*n*=158).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3047*	-.5849, -.0245	c'	-.0882	-.2520, .0756
		(.1418)			(.0829)	
Deviancy (M)				b_1	.0953*	.0034, .1871
					(.0465)	
Age (W)	a_2	-.0475	-.1790, .0840			
		(.0666)				
X × W	a_3	.0651	-.2016, .3319			
		(.1350)				
BL MJWK (U)	a_4	.2451	-.0115, .5016	b_2	.2966***	.1491, .4441
		(.1299)			(.0747)	
Constant	i_M	1.0386***	.7429, 1.3342	i_Y	.0763	-.1174, .2699
		(.1496)			(.0980)	
		R^2 = .0580			R^2 = .1431	
		$F(4, 153) = 2.3549$, $p = .0563$			$F(3, 154) = 8.5759$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 54. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 3-month Follow-up with Age in First Stage (*n*=159).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3131*	-.5949, -.0312	c'	.0636	-.0640, .1911
		(.1427)			(.0646)	
Deviancy (M)				b_1	.0127	-.0581, .0835
					(.0358)	
Age (W)	a_2	-.0670	-.2014, .0673			
		(.0680)				
X × W	a_3	.0413	-.2249, .3076			
		(.1348)				
BL PRAG (U)	a_4	.1989	-.0031, .4009	b_2	.2963***	.2073, .3853
		(.1022)			(.0451)	
Constant	i_M	1.1705***	.9793, 1.3617	i_Y	-.0377	-.1565, .0812
		(.0968)			(.0602)	
		R^2 = .0616			R^2 = .2251	
		$F(4, 154) = 2.5283$, $p = .0429$			$F(3, 155) = 15.0079$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 55. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 6-month Follow-up with Age in First Stage (*n*=134).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2925	-.5868, .0018	c'	-.2135*	-.4090, -.0179
		(.1488)			(.0989)	
Deviancy (M)				b_1	.0429	-.0708, .1567
					(.0575)	
Age (W)	a_2	-.0373	-.1696, .0950			
		(.0669)				
X × W	a_3	.0932	-.1768, .3631			
		(.1364)				
BL PHDD (U)	a_4	.4260***	.1861, .6660	b_2	.1836*	.0227, .3445
		(.1213)			(.0813)	
Constant	i_M	1.0162***	.7893, 1.2431	i_Y	.2392*	.0518, .4267
		(.1147)			(.0948)	
		$R^2 = .1125$			$R^2 = .0874$	
		$F(4, 129) = 4.0897$, $p = .0037$			$F(3, 130) = 4.1497$, $p = .0037$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 56. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 6-month Follow-up with Age in First Stage (*n*=134).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2865	-.5827, .0097	c'	-.1247	-.2979, .0485
		(.1497)			(.0875)	
Deviancy (M)				b_1	.0159	-.0842, .1160
					(.0506)	
Age (W)	a_2	-.0530	-.1865, .0806			
		(.0675)				
X × W	a_3	.0980	-.1752, .3712			
		(.1381)				
BL DRWK (U)	a_4	.4467**	.1743, .7191	b_2	.1896*	.0311, .3481
		(.1377)			(.0801)	
Constant	i_M	.9949***	.7461, 1.2438	i_Y	.2537**	.0803, .4272
		(.1258)			(.0877)	
		$R^2 = .1010$			$R^2 = .0631$	
		$F(4, 129) = 3.6232$, $p = .0078$			$F(3, 130) = 2.9161$, $p = .0368$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 57. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 6-month Follow-up with Age in First Stage (*n*=132).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2360	-.5415, .0695	c'	.0026	-.1841, .1892
		(.1544)			(.0943)	
Deviancy (M)				b_1	-.0330	-.1392, .0732
					(.0537)	
Age (W)	a_2	-.0406	-.1770, .0959			
		(.0689)				
X × W	a_3	.0543	-.2222, .3308			
		(.1397)				
BL MJWK (U)	a_4	.2719	-.0059, .5498	b_2	.2617**	.0933, .4300
		(.1404)			(.0851)	
Constant	i_M	1.0395***	.7219, 1.3571	i_Y	.2865*	.0666, .5064
		(.1605)			(.1111)	
		R^2 = .0525			R^2 = .0689	
		$F(4, 127) = 1.7602$, $p = .1409$			$F(3, 128) = 3.1583$, $p = .0270$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 58. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 6-month Follow-up with Age in First Stage (*n*=134).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2649	-.5696, .0398	c'	-.0369	-.1725, .0987
		(.1540)			(.0685)	
Deviancy (M)				b_1	.0424	-.0341, .1188
					(.0387)	
Age (W)	a_2	-.0624	-.2020, .0772			
		(.0706)				
X × W	a_3	.0250	-.2498, .2998			
		(.1389)				
BL PRAG (U)	a_4	.2078	-.0129, .4285	b_2	.1841***	.0884, .2799
		(.1115)			(.0484)	
Constant	i_M	1.1850***	.9740, 1.3960	i_Y	-.0450	-.1746, .0847
		(.1067)			(.0655)	
		R^2 = .0531			R^2 = .1228	
		$F(4, 129) = 1.8096$, $p = .1309$			$F(3, 130) = 6.0683$, $p = .0007$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 59. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0533	-.3057, .1991	c'	-.0644	-.2184, .0895
		(.1278)			(.0779)	
Deviancy (M)				b_1	.0880	-.0073, .1832
					(.0482)	
Conduct Disorder (W)	a_2	.0141	-.0239, .0521			
		(.0192)				
X × W	a_3	-.0273	-.1032, .0486			
		(.0384)				
BL PHDD (U)	a_4	.0666	-.1467, .2798	b_2	.2337***	.1070, .3605
		(.1080)			(.0642)	
Constant	i_M	1.0748***	.8808, 1.2687	i_Y	.0944	-.0600, .2487
		(.0982)			(.0782)	
		R^2 = .0125			R^2 = .1042	
		$F(4, 159)$ = .5050, p = .7321			$F(3, 160)$ = 6.2028, p = .0005	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 60. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0514	-.3039, .2011	c'	-.0384	-.1780, .1011
		(.1279)			(.0707)	
Deviancy (M)				b_1	.0886*	.0022, .1749
					(.0437)	
Conduct Disorder (W)	a_2	.0140	-.0240, .0520			
		(.0192)				
X × W	a_3	-.0277	-.1033, .0479			
		(.0383)				
BL DRWK (U)	a_4	.0782	-.1601, .3165	b_2	.2722***	.1434, 4009
		(.1207)			(.0652)	
Constant	i_M	1.0657***	.8559, 1.2756	i_Y	.0684	-.0776, .2143
		(.1062)			(.0739)	
		R^2 = .0128			R^2 = .1283	
		$F(4, 159)$ = .5150, p = .7248			$F(3, 160)$ = 7.8512, p = .0001	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 61. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0382	-.2905, .2140	c'	-.1144	-.2719, .0431
		(.1277)			(.0798)	
Deviancy (M)				b_1	.0805	-.0171, .1780
					(.0494)	
Conduct	a_2	.0199	-.0184, .0582			
Disorder (W)		(.0194)				
X × W	a_3	-.0371	-.1118, .0376			
		(.0378)				
BL MJWK (U)	a_4	-.0327	-.2679, .2025	b_2	.3253***	.1825, .4682
		(.1191)			(.0723)	
Constant	i_M	1.1447***	.8751, 1.4143	i_Y	.0689	-.1286, .2663
		(.1365)			(.1000)	
		R^2 = .0132			R^2 = .1419	
		$F(4, 158)$ = .5280, p = .7153			$F(3, 159)$ = 8.7630, p < .0001	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 62. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0401	-.2929, .2128	c'	.0639	-.0582, .1859
		(.1280)			(.0618)	
Deviancy (M)				b_1	.0504	-.0249, .1258
					(.0382)	
Conduct	a_2	.0082	-.0315, .0479			
Disorder (W)		(.0201)				
X × W	a_3	-.0321	-.1068, .0425			
		(.0378)				
BL PRAG (U)	a_4	.1105	-.0795, .3006	b_2	.2879***	.2013, .3744
		(.0962)			(.0438)	
Constant	i_M	1.0500***	.8750, 1.2250	i_Y	-.0775	-.1911, .0361
		(.0886)			(.0575)	
		R^2 = .0183			R^2 = .2282	
		$F(4, 159)$ = .7422, p = .5646			$F(3, 160)$ = 15.7709, p < .0001	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 63. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=156).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1880*	-.3503, -.0257	c'	-.0572	-.2203, .1060
		(.0822)			(.0826)	
Deviancy (M)				b_1	-.0190	-.1748, .1367
					(.0788)	
Conduct Disorder (W)	a_2	.0253*	.0005, .0501			
		(.0126)				
X × W	a_3	-.0372	-.0865, .0121			
		(.0250)				
BL PHDD (U)	a_4	-.0071	-.1448, .1305	b_2	.2350***	.1032, .3668
		(.0697)			(.0667)	
Constant	i_M	.3592***	.2344, .4840	i_Y	.1961	.0641, .3280
		(.0632)			(.0668)	
		R^2 = .0744			R^2 = .0790	
		$F(4, 151) = 3.0342$, $p = .0193$			$F(3, 152) = 4.3462$, $p = .0057$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 64. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=156).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1899*	-.3522, -.0276	c'	-.0237	-.1705, .1231
		(.0822)			(.0743)	
Deviancy (M)				b_1	-.0409	-.1808, .0990
					(.0708)	
Conduct Disorder (W)	a_2	.0262*	.0015, .0509			
		(.0125)				
X × W	a_3	-.0385	-.0876, .0106			
		(.0248)				
BL DRWK (U)	a_4	-.0405	-.1934, .1123	b_2	.2682***	.1357, .4006
		(.0774)			(.0671)	
Constant	i_M	.3830***	.2479, .5181	i_Y	.1762**	.0478, .3045
		(.0684)			(.0650)	
		R^2 = .0760			R^2 = .0979	
		$F(4, 151) = 3.1055$, $p = .0172$			$F(3, 152) = 5.5005$, $p = .0013$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 65. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=155).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1891*	-.3532, -.0249	c'	-.1095	-.2786, .0595
		(.0831)			(.0856)	
Deviancy (M)				b_1	.0261	-.1344, .1866
					(.0812)	
Conduct Disorder (W)	a_2	.0234	-.0019, .0487			
		(.0218)				
X × W	a_3	-.0357	-.0847, .0133			
		(.0248)				
BL MJWK (U)	a_4	.0257	-.1276, .1790	b_2	.3289***	.1784, .4794
		(.0776)			(.0762)	
Constant	i_M	.3299***	.1556, .5042	i_Y	.1552	-.0232, .3336
		(.0882)			(.0903)	
		R^2 = .0746			R^2 = .1294	
		$F(4, 150) = 3.0242$, $p = .0196$			$F(3, 151) = 7.4835$, $p = .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 66. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=156).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1886*	-.3517, -.0255	c'	.0764	-.0509, .2036
		(.0825)			(.0644)	
Deviancy (M)				b_1	-.0302	-.1512, .0908
					(.0612)	
Conduct Disorder (W)	a_2	.0255	-.0006, .0515			
		(.0132)				
X × W	a_3	-.0367	-.0854, .0120			
		(.0246)				
BL PRAG (U)	a_4	-.0060	-.1295, .1174	b_2	.3058***	.2172, .3945
		(.0625)			(.0449)	
Constant	i_M	.3581***	.2457, .4705	i_Y	-.0218	-.1146, .0710
		(.0569)			(.0470)	
		R^2 = .0744			R^2 = .2353	
		$F(4, 151) = 3.0339$, $p = .0193$			$F(3, 152) = 15.5926$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 67. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0010	-.2513, .2532	c'	-.0686	-.2232, .0860
		(.1277)			(.0783)	
Deviancy (M)				b_1	.0607	-.0331, .1545
					(.0475)	
Conduct Disorder (W)	a_2	.0525**	.0145, .0904			
		(.0192)				
X × W	a_3	.0189	-.0569, .0948			
		(.0384)				
BL PHDD (U)	a_4	.2308*	.0176, .4440	b_2	.2253***	.0957, .3550
		(.1079)			(.0656)	
Constant	i_M	.6031***	.4092, .7970	i_Y	.1528*	.0957, .3550
		(.0982)			(.0656)	
			R^2 = .0838		R^2 = .0948	
			$F(4, 159) = 3.6360$, $p = .0073$		$F(3, 160) = 5.5847$, $p = .0011$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 68. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0029	-.2517, .2575	c'	-.0424	-.1826, .0977
		(.1289)			(.0710)	
Deviancy (M)				b_1	.0670	-.0172, .1512
					(.0426)	
Conduct Disorder (W)	a_2	.0549**	.0166, .0932			
		(.0194)				
X × W	a_3	.0129	-.0633, .0891			
		(.0386)				
BL DRWK (U)	a_4	.1672	-.0731, .4074	b_2	.2667***	.1363, .3970
		(.1216)			(.0660)	
Constant	i_M	.6450***	.4335, .8565	i_Y	.1207	-.0052, .2465
		(.1071)			(.0637)	
			R^2 = .0685		R^2 = .1196	
			$F(4, 159) = 2.9240$ $p = .0228$		$F(3, 160) = 7.2421$, $p = .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 69. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0008	-.2572, .2589	c'	-.1178	-.2766, .0410
		(.1307)			(.0804)	
Deviancy (M)				b_1	.0062	-.0880, .1004
					(.0894)	
Conduct	a_2	.0582**	.0190, .0974			
Disorder (W)		(.0198)				
X × W	a_3	.0056	-.0708, .0820			
		(.0387)				
BL MJWK (U)	a_4	.0454	-.1952, .2860	b_2	.3246***	.1801, .4691
		(.1218)			(.0732)	
Constant	i_M	.7167***	.4410, .9925	i_Y	.1546	-.0220, .3313
		(.1396)			(.0894)	
		R^2 = .0585			R^2 = .1276	
		$F(4, 158) = 2.4546$, $p = .0480$			$F(3, 159) = 7.7550$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 70. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0236	-.2298, .2770	c'	.0616	-.0610, .1843
		(.1283)			(.0621)	
Deviancy (M)				b_1	.0074	-.0673, .0821
					(.0378)	
Conduct	a_2	.0445*	.0047, .0843			
Disorder (W)		(.0202)				
X × W	a_3	.0036	-.0711, .0784			
		(.0379)				
BL PRAG (U)	a_4	.2107*	.0202, .4012	b_2	.2919***	.2028, .3810
		(.0964)			(.0451)	
Constant	i_M	.6277***	.4524, .8031	i_Y	-.0291	-.1221, .0639
		(.0888)			(.0471)	
		R^2 = .0849			R^2 = .2200	
		$F(4, 159) = 3.6890$, $p = .0067$			$F(3, 160) = 15.0405$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 71. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0652 (.1335)	-.1988, .3291	c'	-.2382* (.0939)	-.4240, -.0525
Deviancy (M)				b_1	.1004 (.0604)	-.0190, .2098
Conduct Disorder (W)	a_2	.0121 (.0202)	-.0278, .0521			
X × W	a_3	-.0494 (.0399)	-.1283, .0294			
BL PHDD (U)	a_4	.0688 (.1113)	-.1514, .2890	b_2	.2161** (.0763)	.0652, .3670
Constant	i_M	1.0479*** (.1033)	.8436, 1.2512	i_Y	.1532 (.0948)	-.0344, .3408
		R^2 = .0220			R^2 = .1167	
		$F(4, 134)$ = .7550, p = .5564			$F(3, 135)$ = 5.9464, p = .0008	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 72. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0670 (.1333)	-.1967, .3306	c'	-.1414 (.0838)	-.3071, .0241
Deviancy (M)				b_1	.0588 (.0539)	-.0479, .1654
Conduct Disorder (W)	a_2	.0115 (.0201)	-.0283, .0513			
X × W	a_3	-.0485 (.0398)	-.1272, .0302			
BL DRWK (U)	a_4	.1046 (.1239)	-.1404, .3496	b_2	.2187** (.0762)	.0680, .3694
Constant	i_M	1.0213*** (.1114)	.8010, 1.2416	i_Y	.1797* (.0876)	.0064, .3529
		R^2 = .0244			R^2 = .0882	
		$F(4, 134)$ = .8392, p = .5026			$F(3, 135)$ = 4.3549, p = .0058	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 73. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0913	-.1740, .3566	c'	-.0060	-.1871, .1751
		(.1341)			(.0915)	
Deviancy (M)				b_1	.0529	-.0632, .1689
					(.0587)	
Conduct	a_2	.0180	-.0222, .0581			
Disorder (W)		(.0203)				
X × W	a_3	-.0587	-.1370, .0197			
		(.0396)				
BL MJWK (U)	a_4	-.0002	-.2461, .2456	b_2	.2436**	.0806, .4066
		(.1243)			(.0824)	
Constant	i_M	1.0856***	.8060, 1.3652	i_Y	.1911	-.0321, .4142
		(.1414)			(.1128)	
		R^2 = .0264			R^2 = .0686	
		$F(4, 132)$ = .8948, p = .4691			$F(3, 133)$ = 3.2656, p = .0235	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 74. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0760	-.1881, .3400	c'	-.0486	-.1784, .0812
		(.1335)			(.0656)	
Deviancy (M)				b_1	.0535	-.0298, .1367
					(.0421)	
Conduct	a_2	.0079	-.0333, .0490			
Disorder (W)		(.0208)				
X × W	a_3	-.0538	-.1318, .0242			
		(.0395)				
BL PRAG (U)	a_4	.1031	-.0948, 3010	b_2	.1809***	.0882, .2737
		(.1001)			(.0469)	
Constant	i_M	1.0286***	.8430, 1.2141	i_Y	-.0502	-.1734, .0729
		(.0938)			(.0623)	
		R^2 = .0270			R^2 = .1221	
		$F(4, 134)$ = .9282, p =.4497			$F(3, 135)$ = 6.2566, p = .0005	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 75. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=132).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1831*	-.3657, -.0006	c'	-.2370*	-.4305, -.0434
		(.0922)			(.0978)	
Deviancy (M)				b_1	.0931	-.0863, .2724
					(.0906)	
Conduct Disorder (W)	a_2	.0256	-.0026, .0537			
		(.0142)				
X × W	a_3	-.0419	-.0971, .0132			
		(.0279)				
BL PHDD (U)	a_4	-.0078	-.1609, .1453	b_2	.1791*	.0240, .3342
		(.0774)			(.0784)	
Constant	i_M	.3643***	.2218, .5068	i_Y	.2485**	.0904, .4066
		(.0720)			(.0799)	
		R^2 = .0745			R^2 = .0966	
		$F(4, 127) = 2.5541$, p = .0421			$F(3, 128) = 4.5633$, p = .0045	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 76. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=132).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1845*	-.3669, -.0022	c'	-.1395	-.3114, .0323
		(.0921)			(.0868)	
Deviancy (M)				b_1	.0616	-.0974, .2206
					(.0804)	
Conduct Disorder (W)	a_2	.0269	-.0011, .0548			
		(.0141)				
X × W	a_3	-.0433	-.0983, .0117			
		(.0278)				
BL DRWK (U)	a_4	-.0520	-.2213, .1174	b_2	.1912*	.0377, .3447
		(.0856)			(.0776)	
Constant	i_M	.3967***	.2431, .5503	i_Y	.2375**	.0855, .3896
		(.0776)			(.0769)	
		R^2 = .0771			R^2 = .0727	
		$F(4, 127) = 2.6511$, p = .0362			$F(3, 128) = 3.3466$, p = .0213	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 77. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=130).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1884*	-.3746, -.0022	c'	.0088	-.1842, .2019
		(.0941)			(.0975)	
Deviancy (M)				b_1	.0440	-.1332, .2211
					(.0895)	
Conduct	a_2	.0226	-.0062, .0513			
Disorder (W)		(.0145)				
X × W	a_3	-.0421	-.0975, .0134			
		(.0280)				
BL MJWK (U)	a_4	.0331	-.1398, .2061	b_2	.2515**	.0804, .4226
		(.0874)			(.0865)	
Constant	i_M	.3245**	.1290, .5200	i_Y	.2285*	.0275, .4295
		(.0988)			(.1016)	
		R^2 = .0765			R^2 = .0674	
		$F(4, 125) = 2.5897$, $p = .0399$			$F(3, 126) = 3.0344$, $p = .0317$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 78. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=132).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1866*	-.3696, -.0035	c'	-.0410	-.1792, .0973
		(.0925)			(.0699)	
Deviancy (M)				b_1	.0429	-.0846, .1704
					(.0645)	
Conduct	a_2	.0274	-.0016, .0564			
Disorder (W)		(.0146)				
X × W	a_3	-.0412	-.0960, .0136			
		(.0277)				
BL PRAG (U)	a_4	-.0317	-.1699, .1065	b_2	.2007***	.1032, .2981
		(.0698)			(.0492)	
Constant	i_M	.3795***	.2512, .5078	i_Y	-.0118	-.1152, .0916
		(.0649)			(.0522)	
		R^2 = .0759			R^2 = .1250	
		$F(4, 127) = 2.6072$, $p = .0388$			$F(3, 128) = 6.0928$, $p = .0007$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 79. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0317	-.2949, .2316	c'	-.2308*	-.4182, -.0433
		(.1331)			(.0948)	
Deviancy (M)				b_1	.0287	-.0909, .1483
					(.0605)	
Conduct Disorder (W)	a_2	.0440*	.0041, .0838			
		(.0201)				
X × W	a_3	-.0009	-.0795, .0777			
		(.0398)				
BL PHDD (U)	a_4	.2332*	.0136, .4527	b_2	.2181**	.0626, .3737
		(.1110)			(.0787)	
Constant	i_M	.6001***	.3963, .8039	i_Y	.2403**	.0821, .3985
		(.1030)			(.0800)	
		R^2 = .0809			R^2 = .1001	
		$F(4, 134) = 2.9496$, $p = .0225$			$F(3, 135) = 5.0078$, $p = .0025$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 80. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0281	-.2932, .2370	c'	-.1368	-.3031, .0294
		(.1340)			(.0840)	
Deviancy (M)				b_1	.0206	-.0845, .1257
					(.0532)	
Conduct Disorder (W)	a_2	.0465*	.0065, .0865			
		(.0202)				
X × W	a_3	-.0038	-.0830, .0753			
		(.0400)				
BL DRWK (U)	a_4	.1978	-.0486, .4442	b_2	.2216**	.0686, .3745
		(.1246)			(.0773)	
Constant	i_M	.6228***	.4012, .8443	i_Y	.2265**	.0764, .3766
		(.1120)			(.0759)	
		R^2 = .0682			R^2 = .0812	
		$F(4, 134) = 2.4521$, $p = .0490$			$F(3, 135) = 3.9788$, $p = .0094$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 81. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0216	-.2941, .2509	c'	-.0013	-.1827, .1801
		(.1377)			(.0917)	
Deviancy (M)				b_1	.0014	-.1107, .1135
					(.0567)	
Conduct Disorder (W)	a_2	.0509*	.0097, .0922			
		(.0208)				
X × W	a_3	-.0105	-.0910, .0700			
		(.0407)				
BL MJWK (U)	a_4	.0574	-.1950, .3099	b_2	.2455**	.0814, .4096
		(.1276)			(.0830)	
Constant	i_M	.7077***	.4205, .9948	i_Y	.2459*	.0455, .4462
		(.1452)			(.1013)	
		R^2 = .0526			R^2 = .0629	
		$F(4, 132) = 1.8317$, $p = .1265$			$F(3, 133) = 2.9769$, $p = .0339$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 82. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0119	-.2768, .2530	c'	-.0447	-.1751, .0858
		(.1340)			(.0660)	
Deviancy (M)				b_1	-.0018	-.0847, .0811
					(.0419)	
Conduct Disorder (W)	a_2	.0402	-.0011, .0815			
		(.0209)				
X × W	a_3	-.0138	-.0921, .0645			
		(.0396)				
BL PRAG (U)	a_4	.1870	-.0115, .3855	b_2	.1875***	.0924, .2825
		(.1004)			(.0480)	
Constant	i_M	.6417***	.4556, .8279	i_Y	.0057	-.0966, .1080
		(.0941)			(.0517)	
		R^2 = .0746			R^2 = .1116	
		$F(4, 134) = 2.7020$, $p = .0332$			$F(3, 135) = 5.6526$, $p = .0011$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 83. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=159).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3344* (.1376)	-.6063, -.0625	c'	-.0538 (.0825)	-.2168, .1093
Deviancy (M)				b_1	.0425 (.0470)	-.0505, .1354
Conduct Disorder (W)	a_2	.0336 (.0212)	-.0084, .0755			
X × W	a_3	-.0006 (.0425)	-.0845, .0834			
BL PHDD (U)	a_4	.3524** (.1150)	.1253, .5795	b_2	.2052** (.0682)	.0704, .3400
Constant	i_M	1.0527*** (.1055)	.8443, 1.2611	i_Y	.1664* (.0782)	.0120, .3208
		R^2 = .1171			R^2 = .0768	
		$F(4, 154) = 5.1055$, $p = .0007$			$F(3, 155) = 4.3000$, $p = .0060$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 84. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=159).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3295* (.1393)	-.6046, -.0544	c'	-.0395 (.0752)	-.1879, .1090
Deviancy (M)				b_1	.0160 (.0423)	-.0677, .0996
Conduct Disorder (W)	a_2	.0357 (.0215)	-.0067, .0781			
X × W	a_3	-.0073 (.0429)	-.0919, .0774			
BL DRWK (U)	a_4	.3094* (.1299)	.0527, .5660	b_2	.2523*** (.0688)	.1163, .3883
Constant	i_M	1.0781*** (.1156)	.8497, 1.3064	i_Y	.1690* (.0751)	.0207, .3173
		R^2 = .0965			R^2 = .0901	
		$F(4, 154) = 4.1115$, $p = .0034$			$F(3, 155) = 5.1162$, $p = .0021$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 85. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=158).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3049*	-.5820, -.0279	c'	-.0882	-.2520, .0756
		(.1403)			(.0829)	
Deviancy (M)				b_1	.0953*	.0034, .1871
					(.0465)	
Conduct Disorder (W)	a_2	.0403	-.0027, .0833			
		(.0218)				
X × W	a_3	-.0254	-.1097, .0589			
		(.0427)				
BL MJWK (U)	a_4	.1827	-.0737, .4391	b_2	.2966***	.1491, .4441
		(.1298)			(.0747)	
Constant	i_M	1.1019***	.8083, 1.3955	i_Y	.0763	-.1174, .2699
		(.1486)			(.0980)	
		R^2 = .0771			R^2 = .1431	
		$F(4, 153) = 3.1938$, $p = .0149$			$F(3, 154) = 8.5759$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 86. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in First Stage (*n*=159).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3226*	-.6024, -.0429	c'	.0636	-.0640, .1911
		(.1416)			(.0646)	
Deviancy (M)				b_1	.0127	-.0581, .0835
					(.0358)	
Conduct Disorder (W)	a_2	.0348	-.0101, .0796			
		(.0227)				
X × W	a_3	-.0234	-.1083, .0614			
		(.0430)				
BL PRAG (U)	a_4	.1265	-.0808, .3338	b_2	.2963***	.2073, .3853
		(.1049)			(.0451)	
Constant	i_M	1.2168***	1.0244, 1.4092	i_Y	-.0377	-.1516, .0812
		(.0974)			(.0602)	
		R^2 = .0720			R^2 = .2251	
		$F(4, 154) = 2.9862$, $p = .0208$			$F(3, 155) = 15.0079$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 87. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=134).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2917	-.5845, .0010	c'	-.2135*	-.4090, -.0179
		(.1480)			(.0989)	
Deviancy (M)				b_1	.0429	-.0708, .1567
					(.0575)	
Conduct Disorder (W)	a_2	.0298	-.0160, .0756			
		(.0231)				
X × W	a_3	-.0205	-.1115, .0704			
		(.0460)				
BL PHDD (U)	a_4	.3713**	.1307, .6119	b_2	.1836*	.0227, .3445
		(.1216)			(.0813)	
Constant	i_M	1.0567***	.8310, 1.2824	i_Y	.2392*	.0518, .4267
		(.1141)			(.0948)	
		$R^2 = .1221$			$R^2 = .0874$	
		$F(4, 129) = 4.4451$, $p = .0021$			$F(3, 130) = 4.1497$, $p = .0076$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 88. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=134).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2873	-.5818, .0073	c'	-.1247	-.2979, .0485
		(.1489)			(.0875)	
Deviancy (M)				b_1	.0159	-.0842, .1160
					(.0506)	
Conduct Disorder (W)	a_2	.0325	-.0134, .0784			
		(.0232)				
X × W	a_3	-.0219	-.1135, .0696			
		(.0463)				
BL DRWK (U)	a_4	.3761**	.1062, .6460	b_2	.1896*	.0311, .3481
		(.1364)			(.0801)	
Constant	i_M	1.0479***	.8022, 1.2936	i_Y	.2537**	.0803, .4272
		(.1242)			(.0877)	
		$R^2 = .1100$			$R^2 = .0631$	
		$F(4, 129) = 3.9880$, $p = .0044$			$F(3, 130) = 2.9161$, $p = .0368$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 89. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=132).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2380	-.5391, .0632	c'	.0026	-.1841, .1892
		(.1522)			(.0943)	
Deviancy (M)				b_1	-.0330	-.1392, .0732
					(.0537)	
Conduct Disorder (W)	a_2	.0398	-.0073, .0868			
		(.0238)				
X × W	a_3	-.0400	-.1326, .0527			
		(.0468)				
BL MJWK (U)	a_4	.2074	-.0692, .4840	b_2	.2617**	.0933, .4300
		(.1398)			(.0851)	
Constant	i_M	1.1036***	.7894, 1.4178	i_Y	.2865*	.0666, .5064
		(.1588)			(.1111)	
		R^2 = .0774			R^2 = .0689	
		$F(4, 127) = 2.6629$, $p = .0355$			$F(3, 128) = 3.1583$, $p = .0270$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 90. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in First Stage (*n*=134).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2725	-.5742, .0293	c'	-.0369	-.1725, .0987
		(.1525)			(.0685)	
Deviancy (M)				b_1	.0424	-.0381, .1188
					(.0387)	
Conduct Disorder (W)	a_2	.0337	-.0146, .0821			
		(.0244)				
X × W	a_3	-.0401	-.1329, .0527			
		(.0469)				
BL PRAG (U)	a_4	.1408	-.0815, .3631	b_2	.1841***	.0884, .2799
		(.1124)			(.0484)	
Constant	i_M	1.2288***	1.0184, 1.4392	i_Y	-.0450	-.1746, .0847
		(.1064)			(.0655)	
		R^2 = .0690			R^2 = .1228	
		$F(4, 129) = 2.3888$, $p = .0543$			$F(3, 130) = 6.0683$, $p = .0007$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 91. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0576	-.3089, .1937	c'	-.0806	-.2347, .0735
		(.1272)			(.0780)	
Deviancy (M)				b_1	.0943	-.0004, .1891
					(.0480)	
Age (W)				b_2	.0730*	.0010, .1450
					(.0365)	
M × W				b_3	.0413	-.0529, .1355
					(.0477)	
BL PHDD (U)	a_2	.0923	-.1143, .2988	b_4	.2301***	.1043, .3559
		(.1046)			(.0637)	
Constant	i_M	.0232	-.4072, .4537	i_Y	.3198*	.0557, .5838
		(.2180)			(.1337)	
		R^2 = .0062			R^2 = .1293	
		$F(2, 161)$ = .5039, p = .6051			$F(5, 158)$ = 4.6928, p = .0005	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 92. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0550	-.3065, .1965	c'	-.0580	-.1973, .0813
		(.1273)			(.0705)	
Deviancy (M)				b_1	.0956*	.0101, .1812
					(.0433)	
Age (W)				b_2	.0651	-.0001, .1303
					(.0330)	
M × W				b_3	.0612	-.0239, .1463
					(.0431)	
BL DRWK (U)	a_2	.1054	-.1261, .3369	b_4	.2627***	.1350, .3904
		(.1171)			(.0647)	
Constant	i_M	.0090	-.4325, .4504	i_Y	.2650*	.0204, .5096
		(.2235)			(.1238)	
		R^2 = .0064			R^2 = .1581	
		$F(2, 161)$ = .5189, p = .5962			$F(5, 158)$ = 5.9321, p < .0001	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 93. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0436	-.2957, .2084	c'	-.1308	-.2872, .0257
		(.1276)			(.0792)	
Deviancy (M)				b_1	.0887	-.0075, .1850
					(.0487)	
Age (W)				b_2	.0986**	.0258, .1715
					(.0369)	
M × W				b_3	.0265	-.0693, .1222
					(.0485)	
BL MJWK (U)	a_2	.0008	-.2278, .2295	b_4	.3360***	.1952, .4768
		(.1158)				
					(.0713)	
Constant	i_M	.0655	-.4149, .5460	i_Y	.3479*	.0510, .6447
		(.2433)			(.1503)	
		$R^2 = .0007$			$R^2 = .1800$	
		$F(2, 160) = .0590$, $p = .9427$			$F(5, 157) = 6.8927$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 94. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0414	-.2933, .2105	c'	.0476	-.0756, .1708
		(.1276)			(.0624)	
Deviancy (M)				b_1	.0556	-.0199, .1310
					(.0382)	
Age (W)				b_2	.0125	-.0456, .0705
					(.0294)	
M × W				b_3	.0651	-.0105, .1407
					(.0383)	
BL PRAG (U)	a_2	.1226	-.0552, .3004	b_4	.2735***	.1847, .3623
		(.0900)			(.0450)	
Constant	i_M	-.0156	-.4453, .4142	i_Y	-.0814	-.2936, .1309
		(.2176)			(.1075)	
		$R^2 = .0128$			$R^2 = .2424$	
		$F(2, 161) = 1.0426$, $p = .3549$			$F(5, 158) = 10.1134$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 95. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=156).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1936*	-.3580, -.0292	c'	-.0576	-.2199, .1048
		(.0832)			(.0822)	
Deviancy (M)				b_1	.0048	-.1555, .1652
					(.0811)	
Age (W)				b_2	.0705	-.0037, .1447
					(.0376)	
M × W				b_3	.0164	-.1017, .1346
					(.0598)	
BL PHDD (U)	a_2	.0360	-.0987, .1713	b_4	.2298***	.0979, .3618
		(.0684)			(.0668)	
Constant	i_M	.2702	-.0129, .5533	i_Y	.2819*	.0038, .5599
		(.1433)			(.1407)	
		R^2 = .0365			R^2 = .1007	
		$F(2, 153) = 2.8965$, $p = .0582$			$F(5, 150) = 3.3608$, $p = .0066$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 96. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=156).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1949*	-.3597, -.0302	c'	-.0248	-.1710, .1214
		(.0834)			(.0740)	
Deviancy (M)				b_1	-.0215	-.1655, .1224
					(.0729)	
Age (W)				b_2	.0628	-.0041, .1297
					(.0339)	
M × W				b_3	.0091	-.0970, .1153
					(.0537)	
BL DRWK (U)	a_2	.0046	-.1466, .1558	b_4	.2572***	.1243, .3901
		(.0766)			(.0673)	
Constant	i_M	.2942*	.0035, .5848	i_Y	.2079	-.0492, .4650
		(.1471)			(.1301)	
		R^2 = .0347			R^2 = .1184	
		$F(2, 153) = 2.7523$, $p = .0669$			$F(5, 150) = 4.0276$, $p = .0019$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 97. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=155).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1926*	-.3585, -.0267	c'	-.1085	-.2761, .0590
		(.0840)			(.0848)	
Deviancy (M)				b_1	.0570	-.1070, .2210
					(.0830)	
Age (W)				b_2	.0822*	.0061, .1583
					(.0285)	
M × W				b_3	.0345	-.0858, .1547
					(.0608)	
BL MJWK (U)	a_2	.0640	-.0859, .2139	b_4	.3397***	.1903, .4891
		(.0759)			(.0756)	
Constant	i_M	.2301	-.0897, .5499	i_Y	.3221*	.0026, .6416
		(.1619)			(.1617)	
		R^2 = .0409			R^2 = .1573	
		$F(2, 152) = 3.2371$, $p = .0420$			$F(5, 149) = 5.5644$, $p = .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 98. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=156).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1896*	-.3549, -.0244	c'	.0772	-.0509, .2052
		(.0836)			(.0648)	
Deviancy (M)				b_1	-.0212	-.1470, .1047
					(.0637)	
Age (W)				b_2	.0063	-.0527, .0653
					(.0299)	
M × W				b_3	.0239	-.0683, .1161
					(.0467)	
BL PRAG (U)	a_2	.0362	-.0807, .1531	b_4	.3041***	.2138, .3945
		(.0592)			(.0457)	
Constant	i_M	.2665	-.0160, .5490	i_Y	-.1474	-.3655, .0706
		(.1430)			(.1103)	
		R^2 = .0371			R^2 = .2369	
		$F(2, 153) = 2.9440$, $p = .0556$			$F(5, 150) = 9.3143$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 99. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0155	-.2720, .2410	c'	-.0746	-.2290, .0798
		(.1299)			(.0782)	
Deviancy (M)				b_1	.0587	-.0348, .1521
					(.0473)	
Age (W)				b_2	.0653	-.0077, .1383
					(.0370)	
M × W				b_3	-.0200	-.1282, .0883
					(.0548)	
BL PHDD (U)	a_2	.2723*	.0615, .4831	b_4	.2267***	.0968, .3567
		(.1068)			(.0658)	
Constant	i_M	-.1661	-.6054, .2732	i_Y	.3117*	.0464, .5771
		(.2224)			(.1344)	
		$R^2 = .0391$			$R^2 = .1142$	
		$F(2, 161) = 3.2726$, $p = .0404$			$F(5, 158) = 4.0751$, $p = .0017$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 100. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0129	-.2720, .2462	c'	-.0506	-.1908, .0895
		(.1312)			(.0710)	
Deviancy (M)				b_1	.0662	-.0177, .1501
					(.0425)	
Age (W)				b_2	.0593	-.0071, .1258
					(.0336)	
M × W				b_3	.0139	-.0839, .1117
					(.0495)	
BL DRWK (U)	a_2	.2214	-.0172, .4599	b_4	.2570***	.1264, .3877
		(.1208)			(.0662)	
Constant	i_M	-.1371	-.5920, .3178	i_Y	.2552*	.0084, .5020
		(.2303)			(.1250)	
		$R^2 = .0207$			$R^2 = .1366$	
		$F(2, 1561) = 1.6978$, $p = .1863$			$F(5, 158) = 4.9993$, $p = .0003$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 101. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0146	-.2777, .2485	c'	-.1277	-.2848, .0294
		(.1332)			(.0795)	
Deviancy (M)				b_1	.0031	-.0898, .0961
					(.0471)	
Age (W)				b_2	.0930*	.0190, .1671
					(.0375)	
M × W				b_3	-.0112	-.1199, .0976
					(.0551)	
BL MJWK (U)	a_2	.1262	-.1125, .3649	b_4	.3337***	.1910, .4764
		(.1209)			(.0723)	
Constant	i_M	-.1060	-.6075, .3956	i_Y	.3446*	.0457, .6435
		(.2540)			(.1513)	
		$R^2 = .0070$			$R^2 = .1619$	
		$F(2, 160) = .5640$, $p = .5700$			$F(5, 157) = 6.0673$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 102. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 3-month Follow-up with Age in Second Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0200	-.2356, .2756	c'	.0584	-.0655, .1824
		(.1294)			(.0628)	
Deviancy (M)				b_1	.0584	-.0655, .1824
					(.0628)	
Age (W)				b_2	.0079	-.0512, .0671
					(.0299)	
M × W				b_3	.0226	-.0638, .1091
					(.0438)	
BL PRAG (U)	a_2	.2841**	.1037, .4644	b_4	.2871***	.1954, .3789
		(.0913)			(.0465)	
Constant	i_M	-.2120	-.6480, .2239	i_Y	-.1095	-.3227, .1036
		(.2208)			(.1079)	
		$R^2 = .0569$			$R^2 = .2215$	
		$F(2, 161) = 4.8554$, $p = .0090$			$F(5, 158) = 8.9894$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 103. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0614	-.2022, .3250	c'	-.2462*	-.4344, -.0579
		(.1333)			(.0952)	
Deviancy (M)				b_1	.1022	-.0177, .2221
					(.0606)	
Age (W)				b_2	.0468	-.0370, .1306
					(.0423)	
M × W				b_3	.0130	-.0980, .1240
					(.0561)	
BL PHDD (U)	a_2	.1010	-.1126, .3146	b_4	.2166**	.0652, .3681
		(.1080)			(.0766)	
Constant	i_M	-.1647	-.6120, .2826	i_Y	.6354***	.3156, .9552
		(.2262)			(.1617)	
		R^2 = .0079			R^2 = .1250	
		$F(2, 136)$ = .5396, p = .5842			$F(5, 133)$ = 3.7992, p = .0030	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 104. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0639	-.1993, .3272	c'	-.1467	-.3140, .0206
		(.1331)			(.0846)	
Deviancy (M)				b_1	.0606	-.0461, .1673
					(.0539)	
Age (W)				b_2	.0553	-.0192, .1298
					(.0377)	
M × W				b_3	-.0035	-.1021, .0950
					(.0498)	
BL DRWK (U)	a_2	.1373	-.1013, .3759	b_4	.2128**	.0619, .3636
		(.1207)			(.0763)	
Constant	i_M	-.1959	-.6525, .2607	i_Y	.4702**	.1796, .7608
		(.2209)			(.1469)	
		R^2 = .0109			R^2 = .1029	
		$F(2, 136)$ = .7502, p = .4742			$F(5, 133)$ = 3.0509, p = .0122	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 105. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0877	-.1785, .3539	c'	-.0086	-.1868, .1696
		(.1346)			(.0901)	
Deviancy (M)				b_1	.0549	-.0582, .1680
					(.0572)	
Age (W)				b_2	.1172**	.0386, .1959
					(.0527)	
M × W				b_3	-.0460	-.1503, .0582
					(.0527)	
BL MJWK (U)	a_2	.0381	-.2018, .2780	b_4	.2570**	.0981, .4158
		(.1213)			(.0803)	
Constant	i_M	-.1707	-.6767, .3352	i_Y	.2473	-.0897, .5843
		(.2558)			(.1703)	
			R^2 = .0036		R^2 = .1327	
			$F(2, 134)$ = .2442, p = .7837		$F(5, 131)$ = 4.0099, p = .0020	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 106. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0745	-.1896, .3386	c'	-.0536	-.1856, .0783
		(.1335)			(.0667)	
Deviancy (M)				b_1	.0554	-.0282, .1391
					(.0423)	
Age (W)				b_2	.0356	-.0238, .0951
					(.0301)	
M × W				b_3	-.0007	-.0788, .0774
					(.0395)	
BL PRAG (U)	a_2	.1136	-.0742, .3014	b_4	.1702***	.0743, .2660
		(.0950)			(.0485)	
Constant	i_M	-.1875	-.6353, .2603	i_Y	.0967	-.1295, .3229
		(.2264)			(.1144)	
			R^2 = .0119		R^2 = .1313	
			$F(2, 136)$ = .8188, p = .4431		$F(5, 133)$ = 4.0205, p = .0020	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 107. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=132).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1866*	-.3717, -.0014	c'	-.2373*	-.4317, -.0429
		(.0936)			(.0982)	
Deviancy (M)				b_1	.1086	-.0793, .2964
					(.0949)	
Age (W)				b_2	.0444	-.0419, .1307
					(.0426)	
M × W				b_3	.0056	-.1280, .1393
					(.0675)	
BL PHDD (U)	a_2	.0375	-.1130, .1879	b_4	.1797*	.0226, .3368
		(.0760)			(.0794)	
Constant	i_M	.2558	-.0604, .5721	i_Y	.6417***	.3111, .9723
		(.1598)			(.1617)	
			$R^2 = .0319$		$R^2 = .1041$	
			$F(2, 129) = 2.1274$, $p = .1233$		$F(5, 126) = 2.9282$, $p = .0155$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 108. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=132).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1876*	-.3730, -.0022	c'	-.1398	-.3116, .0321
		(.0937)			(.0868)	
Deviancy (M)				b_1	.0849	-.0807, .2505
					(.0837)	
Age (W)				b_2	.0555	-.0208, .1317
					(.0385)	
M × W				b_3	.0185	-.0995, .1365
					(.0596)	
BL DRWK (U)	a_2	-.0058	-.1740, .1623	b_4	.1834*	.0286, .3382
		(.0850)			(.0782)	
Constant	i_M	.2885	-.0352, .6122	i_Y	.4788**	.1794, .7783
		(.1636)			(.1513)	
			$R^2 = .0301$		$R^2 = .0886$	
			$F(2, 129) = 2.0047$, $p = .1389$		$F(5, 126) = 2.4495$, $p = .0373$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 109. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=130).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1819*	-.3775, -.0007	c'	.0092	-.1783, .1967
		(.0952)			(.0947)	
Deviancy (M)				b_1	.0967	-.0822, .2755
					(.0904)	
Age (W)				b_2	.1245**	.0421, .2069
					(.0416)	
M × W				b_3	.0512	-.0746, .1770
					(.0636)	
BL MJWK (U)	a_2	.0729	-.0962, .2420	b_4	.2718**	.1052, .4384
		(.0854)			(.0842)	
Constant	i_M	.2139	-.1477, .5754	i_Y	.2147	-.1415, .5709
		(.1827)			(.1800)	
		R^2 = .0392			R^2 = .1354	
		$F(2, 127) = 2.5894$, $p = .0790$			$F(5, 124) = 3.8834$, $p = .0026$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 110. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=132).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1863*	-.3723, -.0002	c'	-.0401	-.1778, .0976
		(.0940)			(.0696)	
Deviancy (M)				b_1	.0757	-.0566, .2080
					(.0669)	
Age (W)				b_2	.0385	-.0233, .1003
					(.0312)	
M × W				b_3	.0599	-.0336, .1533
					(.0472)	
BL PRAG (U)	a_2	.0094	-.1237, .1425	b_4	.1899***	.0915, .2884
		(.0673)			(.0497)	
Constant	i_M	.2761	-.0400, .5921	i_Y	.0768	-.1566, .3103
		(.1597)			(.1180)	
		R^2 = .0303			R^2 = .1468	
		$F(2, 129) = 2.0124$, $p = .1378$			$F(5, 126) = 4.3356$, $p = .0020$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 111. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0447	-.3103, .2209	c'	-.2455*	-.4344, -.0576
		(.1343)			(.0950)	
Deviancy (M)				b_1	.0233	-.0963, .1428
					(.0604)	
Age (W)				b_2	.0498	-.0347, .1343
					(.0427)	
M × W				b_3	.0796	-.0461, .2053
					(.0635)	
BL PHDD (U)	a_2	.2830*	.0678, .4982	b_4	.2100**	.0540, .3660
		(.1088)			(.0789)	
Constant	i_M	-.1340	-.5847, .3167	i_Y	.6369***	.3175, .9562
		(.2279)			(.1615)	
		R^2 = .0482			R^2 = .1178	
		$F(2, 136) = 3.4432$, $p = .0348$			$F(5, 133) = 3.5510$, $p = .0048$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 112. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0410	-.3090, .2270	c'	-.1507	-.3169, .0155
		(.1355)			(.0840)	
Deviancy (M)				b_1	.0156	-.0892, .1204
					(.0530)	
Age (W)				b_2	.0586	-.0163, .1334
					(.0378)	
M × W				b_3	.0627	-.0481, .1734
					(.0560)	
BL DRWK (U)	a_2	.2535*	.0105, .4964	b_4	.2115**	.0589, .3642
		(.1228)			(.0772)	
Constant	i_M	-.1215	-.5863, .3434	i_Y	.4755**	.1868, .7642
		(.2351)			(.1460)	
		R^2 = .0312			R^2 = .1036	
		$F(2, 136) = 2.1898$, $p = .1159$			$F(5, 133) = 3.0734$, $p = .0117$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 113. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0343	-.3106, .2421	c'	-.0223	-.1996, .1550
		(.1397)			(.0896)	
Deviancy (M)				b_1	-.0880	-.1174, .1013
					(.0553)	
Age (W)				b_2	.1216**	.0423, .2008
					(.0401)	
M × W				b_3	.0560	-.0606, .1726
					(.0589)	
BL MJWK (U)	a_2	.1305	-.1185, .3796	b_4	.2600**	.1001, .4200
		(.1259)			(.0809)	
Constant	i_M	-.0793	-.6046, .4460	i_Y	.2645	-.0716, .6006
		(.2656)			(.1699)	
		$R^2 = .0088$			$R^2 = .1270$	
		$F(2, 134) = .5972$, $p = .5518$			$F(5, 131) = 3.8098$, $p = .0030$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 114. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 6-month Follow-up with Age in Second Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1378	-.5901, .3145	c'	-.0568	-.1880, .0744
		(.2287)			(.0663)	
Deviancy (M)				b_1	-.0026	-.0854, .0802
					(.0419)	
Age (W)				b_2	.0385	-.0214, .0985
					(.0303)	
M × W				b_3	.0487	-.0394, .1368
					(.0445)	
BL PRAG (U)	a_2	.2475*	.0578, .4372	b_4	.1678***	.0697, .2658
		(.0959)			(.0496)	
Constant	i_M	-.1378	-.5901, .3145	i_Y	.1018	-.1226, .3261
		(.2287)			(.1134)	
		$R^2 = .0475$			$R^2 = .1279$	
		$F(2, 136) = 3.3902$, $p = .0366$			$F(5, 133) = 3.8995$, $p = .0025$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 115. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 3-month Follow-up with Age in Second Stage (*n*=159).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3397*	-.6119, -.0675	c'	-.0583	-.2205, .1038
		(.1378)			(.0821)	
Deviancy (M)				b_1	.0496	-.0433, .1426
					(.0470)	
Age (W)				b_2	. 0737	-.0014, .1488
					(.0380)	
M × W				b_3	.0189	-.0722, .1100
					(.0461)	
BL PHDD (U)	a_2	.3816***	.1603, .6028	b_4	.2005**	.0664, .3347
		(.1120)			(.0679)	
Constant	i_M	.2463	-.2148, .7074	i_Y	.3139*	.0434, .5845
		(.2334)			(.1369)	
			$R^2 = .1027$		$R^2 = .0997$	
			$F(2, 156) = 8.9291$, $p = .0002$		$F(5, 153) = 3.3880$, $p = .0062$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 116. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 3-month Follow-up with Age in Second Stage (*n*=159).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3344*	-.6101, -.0586	c'	-.0434	-.1913, .1044
		(.1396)			(.0748)	
Deviancy (M)				b_1	.0231	-.0607, .1069
					(.0424)	
Age (W)				b_2	.0640	-.0048, .1328
					(.0348)	
M × W				b_3	.0173	-.0659, .1004
					(.0421)	
BL DRWK (U)	a_2	.3470**	.0958, .5982	b_4	.2404***	.1043, .3764
		(.1272)			(.0689)	
Constant	i_M	.2576	-.2202, .7354	i_Y	.2647*	.0118, .5176
		(.2419)			(.1280)	
			$R^2 = .0799$		$R^2 = .1105$	
			$F(2, 156) = 6.7732$, $p = .0015$		$F(5, 153) = 3.8003$, $p = .0028$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 117. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 3-month Follow-up with Age in Second Stage (*n*=158).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3102*	-.5889, -.0315	c'	-.0962	-.2575, .0652
		(.1411)			(.0817)	
Deviancy (M)				b_1	.0986*	.0077, .1896
					(.0460)	
Age (W)				b_2	.0947*	.0200, .1695
					(.0378)	
M × W				b_3	-.0352	-.1275, .0570
					(.0467)	
BL MJWK (U)	a_2	.2370	-.0151, .4891	b_4	.2970***	.1438, .4376
		(.1276)			(.0743)	
Constant	i_M	.2296	-.2940, .7531	i_Y	.3482*	.0485, .6478
		(.2650)			(.1517)	
			$R^2 = .0535$		$R^2 = .1806$	
			$F(2, 155) = 4.3849$, $p = .0140$		$F(5, 152) = 6.7017$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 118. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 3-month Follow-up with Age in Second Stage (*n*=159).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3220*	-.6024, -.0416	c'	.0632	-.0652, .1916
		(.1420)			(.0650)	
Deviancy (M)				b_1	.0160	-.0559, .0879
					(.0364)	
Age (W)				b_2	.0058	-.0546, .0663
					(.0306)	
M × W				b_3	.0232	-.0497, .0960
					(.0369)	
BL PRAG (U)	a_2	.1780	-.0189, .3749	b_4	.2904***	.1982, .3826
		(.0997)			(.0467)	
Constant	i_M	.3721	-.1013, .8455	i_Y	-.1114	-.3274, .1045
		(.2397)			(.1093)	
			$R^2 = .0553$		$R^2 = .2272$	
			$F(2, 156) = 4.5670$, $p = .0118$		$F(5, 153) = 8.9965$, $p < .0001$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 119. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 6-month Follow-up with Age in Second Stage (*n*=134).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2952*	-.5878, -.0025	c'	-.2174*	-.4134, -.0213
		(.1479)			(.0991)	
Deviancy (M)				b_1	.0437	-.0709, .1583
					(.0579)	
Age (W)				b_2	.0497	-.0372, .1365
					(.0439)	
M × W				b_3	-.0230	-.1280, .0820
					(.0531)	
BL PHDD (U)	a_2	.4098***	.1758, .6438	b_4	.1827*	.0215, .3440
		(.1183)			(.0815)	
Constant	i_M	.1496	-.3402, .6394	i_Y	.6216***	.2979, .9452
		(.2476)			(.1636)	
		R^2 = .1075			R^2 = .0980	
		$F(2, 131) = 7.8879$, $p = .0006$			$F(5, 128) = 2.7829$, $p = .0202$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 120. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 6-month Follow-up with Age in Second Stage (*n*=134).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2905	-.5854, .0044	c'	-.1291	-.3018, .0436
		(.1491)			(.0873)	
Deviancy (M)				b_1	.0175	-.0829, .1178
					(.0507)	
Age (W)				b_2	.0588	-.0180, .1355
					(.0388)	
M × W				b_3	-.0351	-.1277, .0574
					(.0468)	
BL DRWK (U)	a_2	.4184**	.1545, .6824	b_4	.1794*	.0210, .3378
		(.1334)			(.0801)	
Constant	i_M	.1305	-.3729, .6338	i_Y	.4741**	.1830, .7652
		(.2544)			(.1471)	
		R^2 = .0937			R^2 = .0842	
		$F(2, 131) = 6.7754$, $p = .0016$			$F(5, 128) = 2.3535$, $p = .0442$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 121. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 6-month Follow-up with Age in Second Stage (*n*=132).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2407	-.5440, .0626	c'	-.0076	-.1902, .1751
		(.1533)			(.0923)	
Deviancy (M)				b_1	-.0279	-.1323, .0765
					(.0528)	
Age (W)				b_2	.1128**	.0320, .1937
					(.0409)	
M × W				b_3	-.0236	-.1226, .0755
					(.0501)	
BL MJWK (U)	a_2	.2656	-.0067, .5378	b_4	.2618**	.0957, 4280
		(.1376)			(.0840)	
Constant	i_M	.0958	-.4709, .6625	i_Y	.2530	-.0856, .5916
		(.2864)			(.1711)	
		R^2 = .0490			R^2 = .1242	
		$F(2, 129) = 3.3225$, $p = .0392$			$F(5, 126) = 3.5745$, $p = .0047$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 122. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 6-month Follow-up with Age in Second Stage (*n*=134).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2716	-.5745, .0312	c'	-.0403	-.1761, .0955
		(.1531)			(.0686)	
Deviancy (M)				b_1	.0426	-.0348, .1199
					(.0391)	
Age (W)				b_2	.0345	-.0272, .0961
					(.0321)	
M × W				b_3	-.0256	-.0994, .0481
					(.0373)	
BL PRAG (U)	a_2	.1865	-.0276, .4005	b_4	.1777***	.0784, .2770
		(.1082)			(.0502)	
Constant	i_M	.2843	-.2226, .7911	i_Y	.0745	-.1523, .3013
		(.2562)			(.1146)	
		R^2 = .0473			R^2 = .1351	
		$F(2, 131) = 3.2516$, $p = .0419$			$F(5, 128) = 3.9990$, $p = .0021$	

Notes. Standard errors in parentheses; Age and treatment are mean centered; BL = baseline.
* p < .05; ** p < .01; *** p < .001

Table 123. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0576	-.3089, .1937	c'	-.0533	-.2071, .1004
		(.1272)			(.0778)	
Deviancy (M)				b_1	.0793	-.0161, .1746
					(.0483)	
Conduct				b_2	.0162	-.0069, .0393
Disorder (W)					(.0117)	
M × W				b_3	.0185	-.0113, .0483
					(.0151)	
BL PHDD (U)	a_2	.0923	-.1143, .2988	b_4	.2188***	.0908, .3468
		(.1046)			(.0648)	
Constant	i_M	.0232	-.4072, .4537	i_Y	.2811*	.0179, .5443
		(.2180)			(.1333)	
		$R^2 = .0062$			$R^2 = .1229$	
		$F(2, 161) = .5039$, $p = .6051$			$F(5, 158) = 4.4294$, $p = .0008$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 124. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0550	-.3065, .1965	c'	-.0334	-.1734, .1065
		(.1273)			(.0709)	
Deviancy (M)				b_1	.0844	-.0024, .1711
					(.0439)	
Conduct				b_2	.0153	-.0058, .0363
Disorder (W)					(.0106)	
M × W				b_3	.0024	-.0247, .0295
					(.0137)	
BL DRWK (U)	a_2	.1054	-.1261, .3369	b_4	.2558***	.1251, .3864
		(.1171)			(.0661)	
Constant	i_M	.0090	-.4325, .4504	i_Y	.2298	-.0157, .4753
		(.2235)			(.1243)	
		$R^2 = .0064$			$R^2 = .1397$	
		$F(2, 161) = .5189$, $p = .5962$			$F(5, 158) = 5.1298$, $p = .0002$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 125. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0436	-.2957, .2084	c'	-.1134	-.2723, .0455
		(.1276)			(.0804)	
Deviancy (M)				b_1	.0787	-.0201, .1776
					(.0500)	
Conduct				b_2	.0079	-.0162, .0320
Disorder (W)					(.0122)	
M × W				b_3	-.0027	-.0337, .0283
					(.0157)	
BL MJWK (U)	a_2	.0008	-.2278, .2295	b_4	.3148***	.1671, .4624
		(.1158)			(.0748)	
Constant	i_M	.0655	-.4149, .5460	i_Y	.3425*	.0391, .6458
		(.2433)			(.1536)	
		R^2 = .0007			R^2 = .1443	
		$F(2, 160)$ = .0590, p = .9427			$F(5, 157)$ = 5.2972, p = .0002	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 126. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0414	-.2933, .2105	c'	.0620	-.0605, .1845
		(.1276)			(.0620)	
Deviancy (M)				b_1	.0513	-.0244, .1271
					(.0384)	
Conduct				b_2	.0091	-.0101, .0283
Disorder (W)					(.0097)	
M × W				b_3	-.0084	-.0320, .0153
					(.0120)	
BL PRAG (U)	a_2	.1226	-.0552, .3004	b_4	.2748***	.1824, .3673
		(.0900)			(.0468)	
Constant	i_M	-.0156	-.4453, .4142	i_Y	-.1051	-.3146, .1045
		(.2176)			(.1061)	
		R^2 = .0128			R^2 = .2350	
		$F(2, 161)$ = 1.0426, p = .3549			$F(5, 158)$ = 9.7093, p < .0001	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 127. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=156).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1936*	-.3580, -.0292	c'	-.0567	-.2201, .1067
		(.0832)			(.0827)	
Deviancy (M)				b_1	-.0360	-.2023, .1304
					(.0842)	
Conduct				b_2	.0175	-.0074, .0423
Disorder (W)					(.0126)	
M × W				b_3	-.0005	-.0428, .0417
					(.0214)	
BL PHDD (U)	a_2	.0360	-.0987, .1713	b_4	.2168**	.0811, .3525
		(.0684)			(.0687)	
Constant	i_M	.2702	-.0129, .5533	i_Y	.2885*	.0060, .5710
		(.1433)			(.1430)	
		$R^2 = .0365$			$R^2 = .0907$	
		$F(2, 153) = 2.8965$, $p = .0582$			$F(5, 150) = 2.9928$, $p = .0132$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 128. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=156).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1949*	-.3597, -.0302	c'	-.0251	-.1713, .1212
		(.0834)			(.0740)	
Deviancy (M)				b_1	-.0548	-.2032, .0937
					(.0751)	
Conduct				b_2	.0212	-.0010, .0433
Disorder (W)					(.0112)	
M × W				b_3	-.0069	-.0446, .0308
					(.0191)	
BL DRWK (U)	a_2	.0046	-.1466, .1558	b_4	.2417***	.1067, .3767
		(.0766)			(.0683)	
Constant	i_M	.2942*	.0035, .5848	i_Y	.2206	-.0388, .4800
		(.1471)			(.1313)	
		$R^2 = .0347$			$R^2 = .1195$	
		$F(2, 153) = 2.7523$, $p = .0669$			$F(5, 150) = 4.0714$, $p = .0017$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 129. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=155).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1926*	-.3585, -.0267	c'	-.1090	-.2786, .0606
		(.0840)			(.0858)	
Deviancy (M)				b_1	.0042	-.1667, .1752
					(.0865)	
Conduct				b_2	.0147	-.0112, .0407
Disorder (W)					(.0131)	
M × W				b_3	.0068	-.0363, .0499
					(.0218)	
BL MJWK (U)	a_2	.0640	-.0859, .2139	b_4	.3069***	.1512, .4625
		(.0759)			(.0788)	
Constant	i_M	.2301	-.0897, .5499	i_Y	.3514*	.0250, .6778
		(.1619)			(.1652)	
		R^2 = .0409			R^2 = .1372	
		$F(2, 152) = 3.2371$, $p = .0420$			$F(5, 149) = 4.7390$, $p = .0005$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 130. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=156).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1896*	-.3549, -.0244	c'	.0735	-.0543, .2013
		(.0836)			(.0647)	
Deviancy (M)				b_1	-.0317	-.1610, .0976
					(.0654)	
Conduct				b_2	.0101	-.0102, .0304
Disorder (W)					(.0103)	
M × W				b_3	-.0066	-.0391, .0260
					(.0165)	
BL PRAG (U)	a_2	.0362	-.0807, .1531	b_4	.2890***	.1940, .3840
		(.0592)			(.0481)	
Constant	i_M	.2665	-.0160, .5490	i_Y	-.1321	-.3515, .0873
		(.1430)			(.1110)	
		R^2 = .0371			R^2 = .2411	
		$F(2, 153) = 2.9440$, $p = .0556$			$F(5, 150) = 9.5288$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 131. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0155	-.2720, .2410	c'	-.0644	-.2194, .0905
		(.1299)			(.0785)	
Deviancy (M)				b_1	.0391	-.0651, .1435
					(.0528)	
Conduct				b_2	.0155	-.0087, .0398
Disorder (W)					(.0123)	
M × W				b_3	.0075	-.0266, .0416
					(.0173)	
BL PHDD (U)	a_2	.2723*	.0615, .4831	b_4	.2175**	.0860, .3491
		(.1068)			(.0666)	
Constant	i_M	-.1661	-.6054, .2732	i_Y	.2972*	.0299, .5645
		(.2224)			(.1353)	
		R^2 = .0391			R^2 = .1042	
		$F(2, 161) = 3.2726$, $p = .0404$			$F(5, 158) = 3.6751$, $p = .0036$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 132. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0129	-.2720, .2462	c'	-.0383	-.1784, .1018
		(.1312)			(.0709)	
Deviancy (M)				b_1	.0735	-.0197, .1668
					(.0472)	
Conduct				b_2	.0114	-.0105, .0334
Disorder (W)					(.0111)	
M × W				b_3	-.0157	-.0464, .0151
					(.0156)	
BL DRWK (U)	a_2	.2214	-.0172, .4599	b_4	.2500***	.1181, .3820
		(.1208)			(.0668)	
Constant	i_M	-.1371	-.5920, .3178	i_Y	.2524*	.0050, .4997
		(.2303)			(.1252)	
		R^2 = .0207			R^2 = .1333	
		$F(2, 1561) = 1.6978$, $p = .1863$			$F(5, 158) = 4.8608$, $p = .0004$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 133. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=163).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0146	-.2777, .2485	c'	-.1154	-.2750, .0442
		(.1332)			(.0808)	
Deviancy (M)				b_1	-.0085	-.1133, .0964
					(.0531)	
Conduct				b_2	.0103	-.0150, .0355
Disorder (W)					(.0128)	
M × W				b_3	.0054	-.0295, .0402
					(.0176)	
BL MJWK (U)	a_2	.1262	-.1125, .3649	b_4	.3138***	.1648, .4628
		(.1209)			(.0754)	
Constant	i_M	-.1060	-.6075, .3956	i_Y	.3422*	.0354, .6491
		(.2540)			(.1553)	
		$R^2 = .0070$			$R^2 = .1314$	
		$F(2, 160) = .5640$, $p = .5700$			$F(5, 157) = 4.7494$, $p < .0005$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 134. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=164).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0200	-.2356, .2756	c'	.0626	-.0605, .1856
		(.1294)			(.0623)	
Deviancy (M)				b_1	.0000	-.0823, .0823
					(.0417)	
Conduct				b_2	.0098	-.0101, .0297
Disorder (W)					(.0101)	
M × W				b_3	.0008	-.0260, .0277
					(.0136)	
BL PRAG (U)	a_2	.2841**	.1037, .4644	b_4	.2780***	.1840, .3720
		(.0913)			(.0476)	
Constant	i_M	-.2120	-.6480, .2239	i_Y	-.1100	-.3221, .1020
		(.2208)			(.1074)	
		$R^2 = .0569$			$R^2 = .2247$	
		$F(2, 161) = 4.8554$, $p = .0090$			$F(5, 158) = 9.1566$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 135. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0614	-.2022, .3250	c'	-.2373*	-.4242, -.0504
		(.1333)			(.0945)	
Deviancy (M)				b_1	.0975	-.0221, .2171
					(.0605)	
Conduct				b_2	.0227	-.0054, .0508
Disorder (W)					(.0142)	
M × W				b_3	-.0096	-.0463, .0271
					(.0186)	
BL PHDD (U)	a_2	.1010	-.1126, .3146	b_4	.1986*	.0360, .3433
		(.1080)			(.0777)	
Constant	i_M	-.1647	-.6120, .2826	i_Y	.6427***	.3247, .9607
		(.2262)			(.1608)	
		$R^2 = .0079$			$R^2 = .1354$	
		$F(2, 136) = .5396$, $p = .5842$			$F(5, 133) = 4.1653$, $p = .0015$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 136. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0639	-.1993, .3272	c'	-.1341	-.3009, .0327
		(.1331)			(.0843)	
Deviancy (M)				b_1	.0536	-.0532, .1605
					(.0540)	
Conduct				b_2	.0206	-.0044, .0456
Disorder (W)					(.0126)	
M × W				b_3	.0021	-.0306, .0348
					(.0165)	
BL DRWK (U)	a_2	.1373	-.1013, .3759	b_4	.1955*	.0425, .3485
		(.1207)			(.0774)	
Constant	i_M	-.1959	-.6525, .2607	i_Y	.4634**	.1735, .7533
		(.2209)			(.1466)	
		$R^2 = .0109$			$R^2 = .1061$	
		$F(2, 136) = .7502$, $p = .4742$			$F(5, 133) = 3.1588$, $p = .0100$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 137. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0877	-.1785, .3539	c'	.0001	-.1841, .1842
		(.1346)			(.0931)	
Deviancy (M)				b_1	.0480	-.0697, .1658
					(.0595)	
Conduct				b_2	.0094	-.0183, .0370
Disorder (W)					(.0140)	
M × W				b_3	.0049	-.0314, .0411
					(.0183)	
BL MJWK (U)	a_2	.0381	-.2018, .2780	b_4	.2301**	.0617, .3986
		(.1213)			(.0851)	
Constant	i_M	-.1707	-.6767, .3352	i_Y	.2612	-.0884, .6107
		(.2558)			(.1767)	
		R^2 = .0036			R^2 = .0772	
		$F(2, 134)$ = .2442, p = .7837			$F(5, 131)$ = 2.0377, p = .0775	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 138. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	.0745	-.1896, .3386	c'	-.0531	-.1844, .0782
		(.1335)			(.0664)	
Deviancy (M)				b_1	.0543	-.0296, .1382
					(.0424)	
Conduct				b_2	.0064	-.0139, .0267
Disorder (W)					(.0103)	
M × W				b_3	-.0090	-.0348, .0169
					(.0131)	
BL PRAG (U)	a_2	.1136	-.0742, .3014	b_4	.1740***	.0756, .2724
		(.0950)			(.0497)	
Constant	i_M	-.1875	-.6353, .2603	i_Y	.0950	-.1280, .3180
		(.2264)			(.1127)	
		R^2 = .0119			R^2 = .1281	
		$F(2, 136)$ = .8188, p = .4431			$F(5, 133)$ = 3.9081, p = .0024	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 139. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=132).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1866*	-.3717, -.0014	c'	-.2333*	-.4246, -.0419
		(.0936)			(.0967)	
Deviancy (M)				b_1	.0326	-.1585, .2238
					(.0966)	
Conduct				b_2	.0325*	.0032, .0619
Disorder (W)					(.0148)	
M × W				b_3	.0200	-.0281, .0681
					(.0243)	
BL PHDD (U)	a_2	.0375	-.1130, .1879	b_4	.1505	-.0083, .3094
		(.0760)			(.0803)	
Constant	i_M	.2558	-.0604, .5721	i_Y	.6498***	.3202, .9794
		(.1598)			(.1665)	
		$R^2 = .0319$			$R^2 = .1350$	
		$F(2, 129) = 2.1274$, $p = .1233$			$F(5, 126) = 3.9315$, $p = .0024$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 140. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=132).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1876*	-.3730, -.0022	c'	-.1399	-.3104, .0306
		(.0937)			(.0862)	
Deviancy (M)				b_1	.0230	-.1469, .1930
					(.0859)	
Conduct				b_2	.0280*	.0020, .0540
Disorder (W)					(.0131)	
M × W				b_3	.0063	-.0364, .0490
					(.0216)	
BL DRWK (U)	a_2	-.0058	-.1740, .1623	b_4	.1615*	.0050, .3179
		(.0850)			(.0791)	
Constant	i_M	.2885	-.0352, .6122	i_Y	.4915**	.1908, .7922
		(.1636)			(.1520)	
		$R^2 = .0301$			$R^2 = .1058$	
		$F(2, 129) = 2.0047$, $p = .1389$			$F(5, 126) = 2.9826$, $p = .0140$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 141. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=130).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1819*	-.3775, -.0007	c'	.0079	-.1867, .2025
		(.0952)			(.0983)	
Deviancy (M)				b_1	.0311	-.1606, .2228
					(.0969)	
Conduct				b_2	.0115	-.0182, .0413
Disorder (W)					(.0150)	
M × W				b_3	.0019	-.0458, .0495
					(.0241)	
BL MJWK (U)	a_2	.0729	-.0962, .2420	b_4	.2346*	.0568, .4124
		(.0854)			(.0898)	
Constant	i_M	.2139	-.1477, .5754	i_Y	.2486	-.1258, .6231
		(.1827)			(.1892)	
		R^2 = .0392			R^2 = .0718	
		$F(2, 127) = 2.5894$, $p = .0790$			$F(5, 124) = 1.9196$, $p = .0957$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 142. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Observer Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=132).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1863*	-.3723, -.0002	c'	-.0492	-.1876, .0891
		(.0940)			(.0699)	
Deviancy (M)				b_1	.0747	-.0627, .2121
					(.0694)	
Conduct				b_2	.0052	-.0166, .0269
Disorder (W)					(.0110)	
M × W				b_3	-.0272	-.0613, .0070
					(.0173)	
BL PRAG (U)	a_2	.0094	-.1237, .1425	b_4	.1917***	.0891, .2943
		(.0673)			(.0518)	
Constant	i_M	.2761	-.0400, .5921	i_Y	.0925	-.1440, .3289
		(.1597)			(.1195)	
		R^2 = .0303			R^2 = .1434	
		$F(2, 129) = 2.0124$, $p = .1378$			$F(5, 126) = 4.2169$, $p = .0014$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 143. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0447	-.3103, .2209	c'	-.2328*	-.4179, -.0477
		(.1343)			(.0936)	
Deviancy (M)				b_1	.0378	-.0859, .1614
					(.0625)	
Conduct				b_2	.0180	-.0111, .0471
Disorder (W)					(.0147)	
M × W				b_3	-.0392	-.0818, .0035
					(.0216)	
BL PHDD (U)	a_2	.2830*	.0678, .4982	b_4	.1979*	.0424, .3533
		(.1088)			(.0786)	
Constant	i_M	-.1340	-.5847, .3167	i_Y	.6521***	.3359, .9683
		(.2279)			(.1599)	
		$R^2 = .0482$			$R^2 = .1390$	
		$F(2, 136) = 3.4432$, $p = .0348$			$F(5, 133) = 4.2953$, $p = .0012$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 144. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0410	-.3090, .2270	c'	-.1405	-.3036, .0227
		(.1355)			(.0825)	
Deviancy (M)				b_1	.0325	-.0756, .1407
					(.0547)	
Conduct				b_2	.0148	-.0109, .0404
Disorder (W)					(.0130)	
M × W				b_3	-.0422*	-.0798, -.0046
					(.0190)	
BL DRWK (U)	a_2	.2535*	.0105, .4964	b_4	.2085**	.0566, .3604
		(.1228)			(.0768)	
Constant	i_M	-.1215	-.5863, .3434	i_Y	.4894***	.2051, .7737
		(.2351)			(.1437)	
		$R^2 = .0312$			$R^2 = .1314$	
		$F(2, 136) = 2.1898$, $p = .1159$			$F(5, 133) = 4.0252$, $p = .0020$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 145. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=137).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.0343	-.3106, .2421	c'	-.0074	-.1884, .1736
		(.1397)			(.0915)	
Deviancy (M)				b_1	.0166	-.1013, .1345
					(.0596)	
Conduct				b_2	.0059	-.0227, .0344
Disorder (W)					(.0144)	
M × W				b_3	-.0338	-.0751, .0075
					(.0209)	
BL MJWK (U)	a_2	.1305	-.1185, .3796	b_4	.2234**	.0558, .3910
		(.1259)			(.0847)	
Constant	i_M	-.0793	-.6046, .4460	i_Y	.3010	-.0472, .6491
		(.2656)			(.1760)	
		R^2 = .0088			R^2 = .0851	
		$F(2, 134)$ = .5972, p = .5518			$F(5, 131)$ = 2.4369, p = .0379	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 146. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Adolescent Session 3 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=139).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.1378	-.5901, .3145	c'	-.0488	-.1791, .0815
		(.2287)			(.0659)	
Deviancy (M)				b_1	.0093	-.0774, .0959
					(.0438)	
Conduct				b_2	.0046	-.0163, .0255
Disorder (W)					(.0106)	
M × W				b_3	-.0225	-.0524, .0075
					(.0151)	
BL PRAG (U)	a_2	.2475*	.0578, .4372	b_4	.1743***	.0756, .2731
		(.0959)			(.0499)	
Constant	i_M	-.1378	-.5901, .3145	i_Y	.1003	-.1233, .3238
		(.2287)			(.1130)	
		R^2 = .0475			R^2 = .1296	
		$F(2, 136)$ = 3.3902, p = .0366			$F(5, 133)$ = 3.9594, p = .0022	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 147. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=159).

		Deviancy (M)			3mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3397*	-.6119, -.0675	c'	-.0513	-.2134, .1108
		(.1378)			(.0820)	
Deviancy (M)				b_1	.0237	-.0705, .1179
					(.0477)	
Conduct				b_2	.0153	-.0096, .0402
Disorder (W)					(.0126)	
M × W				b_3	.0211	-.0082, .0504
					(.0148)	
BL PHDD (U)	a_2	.3816***	.1603, .6028	b_4	.2043**	.0685, .3402
		(.1120)			(.0688)	
Constant	i_M	.2463	-.2148, .7074	i_Y	.2892*	.0170, .5614
		(.2334)			(.1378)	
		$R^2 = .1027$			$R^2 = .1003$	
		$F(2, 156) = 8.9291$, $p = .0002$			$F(5, 153) = 3.4102$, $p = .0060$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 148. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=159).

		Deviancy (M)			3mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3344*	-.6101, -.0586	c'	-.0379	-.1857, .1098
		(.1396)			(.0748)	
Deviancy (M)				b_1	.0003	-.0846, .0852
					(.0430)	
Conduct				b_2	.0164	-.0063, .0392
Disorder (W)					(.0115)	
M × W				b_3	.0145	-.0122, .0412
					(.0135)	
BL DRWK (U)	a_2	.3470**	.0958, .5982	b_4	.2453***	.1083, .3824
		(.1272)			(.0694)	
Constant	i_M	.2576	-.2202, .7354	i_Y	.2448	-.0097, .4990
		(.2419)			(.1287)	
		$R^2 = .0799$			$R^2 = .1111$	
		$F(2, 156) = 6.7732$, $p = .0015$			$F(5, 153) = 3.8261$, $p = .0027$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 149. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=158).

		Deviancy (M)			3mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3102*	-.5889, -.0315	c'	-.0871	-.2519, .0778
		(.1411)			(.0834)	
Deviancy (M)				b_1	.0895	-.0052, .1842
					(.0479)	
Conduct				b_2	.0043	-.0213, .0300
Disorder (W)					(.0130)	
M × W				b_3	.0059	-.0244, .0362
					(.0153)	
BL MJWK (U)	a_2	.2370	-.0151, .4891	b_4	.2944***	.1426, .4462
		(.1276)			(.0768)	
Constant	i_M	.2296	-.2940, .7531	i_Y	.3297*	.0199, .6396
		(.2650)			(.1568)	
		R^2 = .0535			R^2 = .1448	
		$F(2, 155) = 4.3849$, $p = .0140$			$F(5, 152) = 5.1476$, $p = .0002$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 150. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 3-month Follow-up with Conduct Disorder in Second Stage (*n*=159).

		Deviancy (M)			3mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.3220*	-.6024, -.0416	c'	.0619	-.0661, .1899
		(.1420)			(.0648)	
Deviancy (M)				b_1	.0072	-.0650, .0794
					(.0365)	
Conduct				b_2	.0112	-.0092, .0316
Disorder (W)					(.0103)	
M × W				b_3	.0012	-.0218, .0242
					(.0116)	
BL PRAG (U)	a_2	.1780	-.0189, .3749	b_4	.2805***	.1868, .3741
		(.0997)			(.0474)	
Constant	i_M	.3721	-.1013, .8455	i_Y	-.1051	-.3211, .1110
		(.2397)			(.1094)	
		R^2 = .0553			R^2 = .2313	
		$F(2, 156) = 4.5670$, $p = .0118$			$F(5, 153) = 9.2076$, $p < .0001$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 151. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Percentage of Heavy Drinking Days (PHDD): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=134).

		Deviancy (M)			6mo PHDD (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2952*	-.5878, -.0025	c'	-.2160*	-.4144, -.0205
		(.1479)			(.0988)	
Deviancy (M)				b_1	.0335	-.0816, .1486
					(.0581)	
Conduct				b_2	.0262	-.0043, .0566
Disorder (W)					(.0154)	
M × W				b_3	-.0049	-.0405, .0308
					(.0180)	
BL PHDD (U)	a_2	.4098***	.1758, .6438	b_4	.1584	-.0065, .3233
		(.1183)			(.0833)	
Constant	i_M	.1496	-.3402, .6394	i_Y	.6404***	.3126, .9682
		(.2476)			(.1657)	
		$R^2 = .1075$			$R^2 = .1075$	
		$F(2, 131) = .7.8879$, $p = .0006$			$F(5, 128) = 3.0847$, $p = .0116$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 152. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Drinks per Week (DRWK): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=134).

		Deviancy (M)			6mo DRWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2905	-.5854, .0044	c'	-.1245	-.2977, .0486
		(.1491)			(.0875)	
Deviancy (M)				b_1	.0041	-.0970, .1052
					(.0511)	
Conduct				b_2	.0222	-.0046, .0491
Disorder (W)					(.0136)	
M × W				b_3	.0027	-.0286, .0340
					(.0158)	
BL DRWK (U)	a_2	.4184**	.1545, .6824	b_4	.1732*	.0127, .3338
		(.1334)			(.0811)	
Constant	i_M	.1305	-.3729, .6338	i_Y	.4722**	.1767, .7677
		(.2544)			(.1493)	
		$R^2 = .0937$			$R^2 = .0834$	
		$F(2, 131) = 6.7754$, $p = .0016$			$F(5, 128) = 2.3298$, $p = .0461$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 153. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Average Number of Marijuana Uses per Week (MJWK): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=132).

		Deviancy (M)			6mo MJWK (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2407	-.5440, .0626	c'	.0043	-.1845, .1932
		(.1533)			(.0954)	
Deviancy (M)				b_1	-.0396	-.1487, .0696
					(.0551)	
Conduct				b_2	.0081	-.0215, .0377
Disorder (W)					(.0149)	
M × W				b_3	.0040	-.0308, .0388
					(.0176)	
BL MJWK (U)	a_2	.2656	-.0067, .5378	b_4	.2558**	.0817, .4300
		(.1376)			(.0880)	
Constant	i_M	.0958	-.4709, .6625	i_Y	.2404	-.1167, .5975
		(.2864)			(.1804)	
		R^2 = .0490			R^2 = .0718	
		$F(2, 129) = 3.3225$, $p = .0392$			$F(5, 126) = 1.9491$, $p = .0908$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

Table 154. Unstandardized OLS Regression Coefficients with Confidence Intervals Estimating Deviancy Training and Alcohol-Related Predatory Aggression (PRAG): Counselor Session 10 Form and 6-month Follow-up with Conduct Disorder in Second Stage (*n*=134).

		Deviancy (M)			6mo PRAG (Y)	
		Coeff.	95% CI		Coeff.	95% CI
Treatment (X)	a_1	-.2716	-.5745, .0312	c'	-.0384	-.1753, .0985
		(.1531)			(.0692)	
Deviancy (M)				b_1	.0390	-.0389, .1168
					(.0393)	
Conduct				b_2	.0077	-.0140, .0295
Disorder (W)					(.0110)	
M × W				b_3	-.0008	-.0254, .0238
					(.0124)	
BL PRAG (U)	a_2	.1865	-.0276, .4005	b_4	.1748***	.0750, .2747
		(.1082)			(.0505)	
Constant	i_M	.2843	-.2226, .7911	i_Y	.0752	-.1543, .3047
		(.2562)			(.1160)	
		R^2 = .0473			R^2 = .1262	
		$F(2, 131) = 3.2516$, $p = .0419$			$F(5, 128) = 3.6983$, $p = .0037$	

Notes. Standard errors in parentheses; Conduct disorder symptoms and treatment are mean centered; BL = baseline; * p < .05; ** p < .01; *** p < .001

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