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# Mechanisms of Behavior Change Within Peer-Implemented Alcohol Interventions

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**ABSTRACT. Objective:** Colleges continue to experience a high number of referred students because of campus alcohol violations. Subsequently, there has been a trend to use peer-implemented minimal interventions (PMIs), often using motivational interviewing (MI). However, little is known about how PMIs facilitate behavior change. This study aims to examine the mechanisms of behavior change within PMIs and their influence on alcohol reduction among mandated students. **Method:** Participants ($N = 146$; mean age = 18.7 years; 67% male; 94% White) were college students who violated campus alcohol policy at a Northeastern liberal arts college who received a 15-minute PMI addressing their alcohol use. The Motivational Interviewing Skill Code (Miller et al., 2003) was used to identify peer counselor behaviors that were MI consistent (MICO), client change talk (CT), and client self-exploration. **Results:** MICO behaviors were positively associated with CT and self-exploration. Client CT and self-exploration were negatively associated with alcohol-related outcomes. Furthermore, mediational models examining MICO behaviors revealed effects for two paths: (a) from MICO to client CT to reduced alcohol use; and (b) from MICO to client self-exploration to reduced alcohol-related consequences and use. **Conclusions:** These data support the primary causal chain examining the influence of MICO on in-session client behaviors and related post-session behavior change in PMIs among at-risk students. (*J. Stud. Alcohol Drugs, 79,* 208–216, 2018)

T HE USE OF PEER COUNSELORS has become an increasingly viable option among universities to reduce the demand on university alcohol programs and harmful drinking behaviors (Mastroleo et al., 2008). Research has shown reductions in drinking behaviors when using peer counselors (Mastroleo et al., 2010; Turrisi et al., 2009) and found that peer counselors were equal to or more effective than professional providers in implementing these interventions (Fromme & Corbin, 2004; Larimer & Cronce, 2002, 2007). However, there is a lack of research examining the within-session processes of peer-implemented minimal interventions (PMIs) that promote behavior change. Of note, for the purposes of this study, the term *peer counselors* refers to undergraduate students.

Until recently, the use of peers to provide individual interventions for alcohol reduction has not been thoroughly evaluated (Mastroleo et al., 2014; Tollison et al., 2008, 2013). To date, we are unaware of any studies that have examined the full motivational interviewing (MI) causal model within PMIs for alcohol reduction among mandated students.

Examining the mechanisms of behavior change (MOBCs), defined as the processes leading to therapeutic improvement (Kazdin & Nock, 2003), may provide greater insight into how PMIs influence post-session behaviors.

### Motivational interviewing: Technical and relational process

Miller and Rose (2009) have distinguished two causal hypotheses: (a) The relational hypothesis suggests that a therapist–client relationship characterized by empathy and MI spirit can evoke client behavior change, and (b) the technical hypothesis suggests that a therapist's directive and proficient use of MI-consistent (MICO) behavior will elicit and reinforce client language in favor of change (change talk [CT]) and that it is this CT that is related to client outcome. For the purposes of this article, these data and analyses will focus on the technical hypothesis or specific therapist behavior of MICO.

Specific therapist behaviors consistent with MI principles (MICO; e.g., supportive statements, reflective listening, and open-ended questions; Miller & Rollnick, 2013) are thought to lead to client self-exploration (Borsari & Carey, 2005). Self-exploration is characterized by the degree to which the client self-discloses and engages in active interpersonal exploration (Truax & Carkhuff, 1965).

Borsari and colleagues (2015) examined the technical hypothesis of MI within brief interventions for mandated students and found an association between therapist behaviors and client language. Client language has been operationalized as CT and sustain talk (ST). On the one hand, producing CT—defined as statements indicating a client's recognition of need, intent, or desire to make a specific change (Moyers & Martin, 2006)—is one of the central goals of MI. On the other hand, ST refers to statements that favor behavioral status quo or counter-change arguments. MICO behaviors are more likely to be followed by client CT (Gaume et al., 2008a, 2008b; Romano & Peters, 2016) and less likely to be followed by client ST (Moyers & Martin, 2006). Subsequently, CT and ST have been linked to resultant changes in alcohol-related behaviors (Apodaca et al., 2014; Gaume et al., 2013; Moyers et al., 2007, 2009).

Taken one step further, Miller & Rose (2009) established that CT is hypothesized to mediate MI intervention efficacy. Given the accumulating evidence that MI-specific therapist behaviors predict client behaviors and in-session client behaviors predict positive outcomes (Apodaca et al., 2014; Borsari & Carey, 2005; Borsari et al., 2015; Strang & McCambridge, 2004), it is important to determine if this hypothesis can be applied to PMIs among mandated college students.

### Present study

This study examines peer counselor–specific MICO behaviors and client MOBCs, both independently and their interaction, on reduction in alcohol use and consequences. To do so, we examined Miller & Rose's (2009) technical hypothesis among PMIs. We hypothesized that peer counselor MICO behaviors would be positively associated with client CT and client self-exploration. We further hypothesized that higher levels of client CT and self-exploration would be negatively associated with subsequent alcohol-related behaviors. Finally, we hypothesized that client behaviors (CT and self-exploration) would mediate the association between peer counselor MICO and (a) alcohol use and (b) consequences.

### Method

### Design

This study conducted secondary data analyses of existing PMI session recordings from a completed intervention study that evaluated stepped care with mandated students (Borsari et al., 2012). All participants received a PMI (Step 1), a 15-minute minimal intervention including a discussion of the referral incident and the provision of a booklet containing advice to reduce drinking. Students were then assessed 6 weeks after receiving the minimal intervention (97% completion rate), and those that continued to exhibit risky

alcohol use were randomized to Step 2, a 60- to 90-minute brief motivational intervention or (b) an assessment-only control group. All students then went on to complete 3-, 6-, and 9-month follow-up assessments.

One hundred forty-six PMIs (25%) were randomly selected for analyses. All of the 146 participants randomly selected for this study completed the baseline assessment; 142 (97.3%) completed the 6-week follow-up. Audiotapes were transcribed and coded using the Motivational Interviewing Skill Code (MISC Version 2.0; Miller et al., 2003). For the purposes of this study, only the participants' baseline assessment, the PMI (or Step 1), and the 6-week follow-up data (collected before Step 2) were analyzed to accurately assess the PMI without the influence of the Step 2 intervention.

### Participants

Participants were undergraduate students age 18 years and older, who violated campus alcohol policy at a Northeastern liberal arts university. Students were referred to the Office of Health and Wellness for mandatory counseling following adjudication by campus staff. Students who declined to participate in the project received treatment as usual from the Office of Health and Wellness (a 15- to 30-minute discussion of their referral incident). University institutional review boards approved all study procedures.

### Measures

*Demographics.* Participants provided information regarding their gender, age, year in school, and race/ethnicity.

*Peer counselor and in-session client behaviors.* The MISC (Miller et al., 2003) was used to code within-session peer counselor and client speech behaviors. The MISC identifies therapist behaviors that fall into two main categories: MI consistent (MICO) and MI inconsistent (MIIN). The MISC also identifies client speech behaviors: CT and ST. Client utterances are coded for speech that represents movement toward (CT) or away (ST) from the target behavior change (stopping or reducing use of alcohol).

Global behaviors designed to capture the overall gestalt of the peer–client relationship are obtained via a 7-point (1 = *low* and 7 = *high*) Likert scale for acceptance, empathy, and overall adherence to the spirit of MI. Each behavior is scored and given a single global rating to reflect the therapist's performance. For this study, therapist global behaviors were measured for fidelity purposes, ensuring that peer counselors were adhering to MI protocol. In addition, a single 7-point global rating of client self-exploration reflects the degree to which the client cooperates, self-discloses, and engages in the session (Truax & Carkhuff, 1965).

*Alcohol use.* The 14-item Alcohol and Drug Use Measure (Borsari & Carey, 2000) assessed frequency (number of drinking episodes) and quantity (average number of drinks

TABLE 1.  Descriptive and interrater reliability information of within-session variables

| Variable | $M$ ($N = 146$) | $SD$ | ICC ($n = 37$) | Cohen's $\kappa$ ($n = 37$) |
|---|---|---|---|---|
| Therapist language | | | | |
| MICO | 26.16 | 13.61 | .995 | |
| MIIN | 1.06 | 1.72 | .962 | |
| Client language | | | | |
| CT | 16.62 | 10.45 | .913 | |
| ST | 6.75 | 6.28 | .974 | |
| Therapist global behaviors | | | | |
| Acceptance | 3.96 | 0.88 | | .697 |
| Empathy | 3.72 | 1.04 | | .778 |
| MI spirit | 3.45 | 1.07 | | .829 |
| Client self-exploration | 3.20 | 1.10 | | .989 |

*Notes:* ICC = intraclass correlation coefficient; MICO = MI-consistent; MIIN = MI-incon-sistent; CT = change talk; ST = sustain talk; MI = motivational interviewing.

consumed per episode) of drinking as well as heavy episodic drinking (HED; defined as 4+ drinks for women, 5+ drinks for men in a 2-hour period; National Institute on Alcohol Abuse and Alcoholism, 2005) in the past 30 days. This measure also records information (i.e., time spent drinking and weight) required to calculate students' estimated peak and typical blood alcohol concentration (pBAC and tBAC; Dimeff et al., 1999). Five outcome variables were derived, as follows: (a) average frequency of drinking, (b) quantity of drinking, (c) HED occasions, (d) estimates of tBAC, (e) and estimates of pBAC.

*Alcohol-related consequences.* Consequences were assessed by the 24-item Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ; Kahler et al., 2005). Dichotomous items (yes/no) were summed for a total number of alcohol-related consequences experienced in the past month. The BYAACQ demonstrated high internal consistency at baseline ($\alpha = .83$) and 6-week post-PMI assessment ($\alpha = .89$).

*Peer minimal intervention*

Twenty-two peer counselors (18 female) conducted the PMIs with an average of 26 sessions each (range: 3–101). The PMI explored events leading up to the incident and any changes that the student made to his or her drinking as a result. The peer counselor also provided a 12-page booklet (Cunningham et al., 2001) containing educational information on what constitutes a standard drink, guidelines for sensible drinking, indicators of risky drinking, instructions for setting a drinking goal, and behavioral strategies to cut down on drinking. The PMI was a blend of didactic information with solicitation of personal information from participants, often using open-ended questions. This discussion took approximately 15 minutes ($M = 14.07$, $SD = 4.59$). Six weeks after the PMI, participants were re-assessed via a web-based survey. No other interventions or contact with the students occurred between the PMI and the 6-week follow-up assessment.

*Peer counselor selection and training*

Peer counselors were volunteer undergraduate students selected by the director of the Office of Health and Wellness for the academic year. Peer counselors were juniors or seniors and, as a result, usually older than the participants in the trial (92% of the participants were freshmen or sophomores). Peer counselors had no prior MI training or experience, and they received 4 hours of training focused on becoming familiar with the didactic information and basic MI strategies. Peer counselors participated in supervised role-plays before administering a formal PMI and attended weekly group supervision (0.5–1.0 hours) that addressed issues that arose during the course of the study. In addition, all PMIs were tape-recorded, and two randomly selected sessions were reviewed weekly. They also received ongoing individual feedback on their intervention delivery skills to ensure treatment adherence.

*MISC coding*

*Training and coder reliability.* Coder training and preparation of session tapes followed the procedures outlined by the MISC Version 2.0 (Miller et al., 2003). First, audiotapes were transcribed by trained undergraduate research assistants. Second, transcripts were parsed to divide lengthy statements into utterances. The study coders (five bachelor-level research assistants) received roughly 40 hours of training in the MISC coding system (see Borsari et al., 2015). Coders worked independently, with 25% ($n = 37$) of their tapes double-coded to ensure continuing accuracy and interrater reliability using intraclass correlations and Cohen's kappa (Table 1).

*Data analysis*

*Preliminary analyses.* Preliminary data analyses were conducted to explore patterns of missing data, dropout rates, peer counselor adherence and competence, and distributional
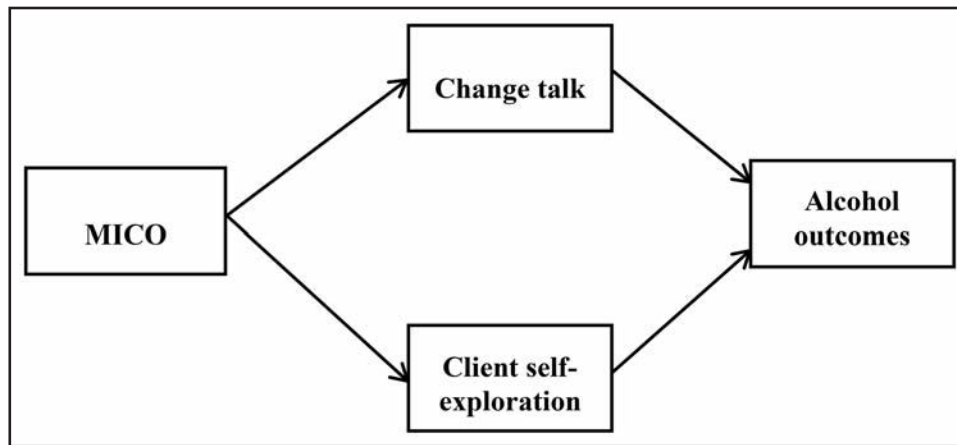
FIGURE 1.    Overall mediation model for peer therapist behaviors, client behaviors, and drinking outcomes. MICO = motivational interviewing–consistent.

properties of dependent variables. All outliers for MICO ($n$ = 2), drinking frequency ($n$ = 4), and estimated peak BAC ($n$ = 2) greater than three standard deviations from the mean were re-coded to one value greater than the farthest non-far outlier (Fidell & Tabachnick, 2003). Additionally, listwise deletion was used to handle missing data (6.8%).

*Overall analytic strategy.* First, we calculated intercorrelations among the observed within-session measures for the peer counselors ($n$ = 22) and then correlated these with alcohol consumption and consequence measures obtained 6 weeks after the intervention. Second, a series of regression analyses was conducted to examine associations between (a) therapist MICO behaviors and client behaviors (CT and self-exploration), (b) therapist behaviors (MICO) and alcohol outcomes, and (c) client behaviors (CT and self-exploration) and alcohol outcomes. Last, client behaviors (CT and client self-exploration) were evaluated via an integrated model as a mediator in the relationship of peer counselor MICO behavior with alcohol use and consequences (Figure 1).

A multiple mediator model following the approach by Preacher and Hayes (2008) was examined. For each of the six outcome variables, we calculated the paths from peer counselor MICO behaviors to client behaviors, the paths from client behaviors to outcomes, and the indirect (mediated) effect for the full model as depicted in Figure 1. All models controlled for the corresponding baseline alcohol outcome measure. Given the small sample size, the Preacher and Hayes' (2004) bootstrapping method was used to analyze each model (using 500 bootstrap iterations; INDIRECT macro). All analyses were conducted in IBM SPSS Statistics for Windows, Version 20.0 (IBM Corp., Armonk, NY).

## Results

Participants were 146 freshman students (32.9% female, $n$ = 48) and primarily White (93.8%), with 2.7% of the sample

identified as Hispanic/Latino. The mean age of the sample was 18.74 years ($SD$ = 0.90). Causes of sanction were primarily for possession of alcohol (78.1%), being in the presence of alcohol (10.3%), and disorderly conduct/public intoxication (10.3%).

Peer counselors exhibited a large number of MICO statements and very few MIIN statements. Consistent with their training, peer counselors most frequently used the MICO skills of open-ended questions ($M$ = 9.90, $SD$ = 5.56) and simple reflections ($M$ = 9.03, $SD$ = 7.82) and the neutral skills of giving information ($M$ = 17.61, $SD$ = 9.89), providing structure ($M$ = 6.58, $SD$ = 3.58), and closed questions ($M$ = 23.33, $SD$ = 11.72). Peer counselor global behaviors were generally high, indicating good adherence to MI principles. Regarding client language, the participants averaged more than twice as much CT as ST (Table 1).

### Bivariate correlations

Correlations among peer counselor language and client language are presented in Table 2. Associations between MICO behaviors were positively correlated with both client CT and self-exploration. Negative associations were observed between client CT and four of the six alcohol-related outcomes. There were also negative associations observed between self-exploration and all six alcohol-related outcomes. MICO and MIIN were not significantly associated with alcohol-related outcomes. Given the unexpected positive correlation between MICO and MIIN, a partial correlation was run controlling for the number of utterances per session. When this variable was controlled for, MICO and MIIN were no longer found to be significantly correlated ($r$ = .052, $p$ = .538). Further, tests for multicollinearity indicated that a very low level of multicollinearity was present among variables (variance inflation factor < 3.00 for MICO, MIIN, CT, ST, and client self-exploration).

TABLE 2. Correlations among within-session variables and 6-week drinking outcomes

| Variable | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
|---|---|---|---|---|---|---|---|---|---|---|
| Independent variables | | | | | | | | | | |
| 1. MICO | – | | | | | | | | | |
| 2. MIIN | .208* | – | | | | | | | | |
| Mediators | | | | | | | | | | |
| 3. CT | .536** | .095 | – | | | | | | | |
| 4. ST | .503** | .172* | .469** | – | | | | | | |
| 5. Self-exploration | .173* | .012 | .545** | .181* | – | | | | | |
| Dependent variables | | | | | | | | | | |
| 6. Alcohol-related consequences | .017 | .121 | -.117 | -.049 | -.175* | – | | | | |
| 7. Number of drink episodes | .078 | -.013 | -.181* | -.040 | -.169* | .091 | – | | | |
| 8. Average drinks/episode | -.007 | .089 | -.146 | .132 | -.239** | .185* | .103 | – | | |
| 9. Heavy episodic drinking | -.041 | .162 | -.192* | .057 | -.273** | .323** | .386** | .437** | – | |
| 10. Typical BAC | -.008 | .042 | -.262** | .010 | -.318** | .309** | .163 | .284** | .475** | – |
| 11. Peak BAC | -.023 | .070 | -.248** | -.021 | -.263** | .250** | .274** | .315** | .656** | -.524** |

*Notes:* MICO = MI-consistent; MIIN = MI-inconsistent; CT = change talk; ST = sustain talk; MI = motivational interviewing; BAC = blood alcohol concentration.
*$p < .05$, two tailed; **$p < .01$, two tailed.

### In-session processes

MICO behaviors were significantly and positively associated with client CT and self-exploration. These results suggest that MICO-specific peer counselor behaviors have an effect on client utterances in session (Table 3).

### In-session processes and alcohol outcomes

The associations between MICO and alcohol-related behaviors were nonsignificant. These findings suggest that among peer counselor interventions, MICO behaviors play little, if any, direct role in drinking behavior changes (Table 4).

Client CT and self-exploration were significantly and negatively associated with both alcohol-related consequences and a number of other outcomes: average drinks/episode, tBAC, and pBAC (Table 4). Further, self-exploration was also negatively associated with heavy episodic drinking.

### Integrated model

Mediated effects were observed for the following paths: (a) from MICO to client CT to reduced alcohol use and (b) from MICO to client self-exploration to reduced alcohol-related consequences and use (Figure 2). The bootstrap estimates presented here are based on 500 bootstrap samples and 95% confidence intervals (CIs). Specifically, mediated effects were observed for the paths from MICO to client CT to reduced average drinks ($B = $ -0.073, CI [-0.161, -0.006]), tBAC ($B = $ -0.002, CI [-0.005, -0.001]), and pBAC ($B = $ -0.003, CI [-0.005, -0.001]). Further, self-exploration appeared to be particularly influential in reducing additional drinking outcomes. Specifically, mediated effects were found for the paths from MICO to client self-exploration to reduced average drinks ($B = $ -0.710, CI [-1.238, -0.251]), tBAC ($B = $ -0.023, CI [-0.041, -0.011]), pBAC ($B = $ -0.028, CI [-0.048, -0.008]), and alcohol-related consequences ($B = $ -0.702, CI [-1.319, -0.038]). These results suggest negative mediated effects, such that MICO was positively associated with client CT and self-exploration, which in turn was negatively associated with alcohol outcomes.

### Discussion

This study provides evidence that specific peer counselor behaviors consistent with MI (MICO) significantly influence client CT and self-exploration within peer-led minimal interventions. Our findings also indicate that client CT and self-exploration lead to subsequent behavior change in alcohol consumption and consequences at 6 weeks after follow-up. These data offer support for the primary causal chain examining the influence of MICO on in-session client behaviors and related post-session behavior change (Miller & Rose, 2009).

TABLE 3. Standard regression coefficients assessing the association between peer therapist and client behaviors

| Variable | B | SE_b | β | t | p | Lower CI of B | Upper CI of B |
|---|---|---|---|---|---|---|---|
| MICO to client change talk | 0.412 | 0.054 | .536 | 7.618 | <.001 | 0.294 | 0.568*** |
| MICO to client self-exploration | 0.014 | 0.007 | .173 | 2.107 | .037 | 0.000 | 0.028* |

*Notes:* All regression models were run with the baseline value of the dependent variable included as covariates. MI = motivational interviewing; CI = confidence interval; MICO = MI-consistent.
*$p < .05$, two tailed; ***$p < .001$.

TABLE 4.   Standard regression coefficients for the 6-week drinking outcomes from within-session variables

| Variable | Alcohol-related consequences | Drinking episodes | Average drink/episode | HED | tBAC | pBAC |
|---|---|---|---|---|---|---|
| Therapist language | | | | | | |
|   MICO | -.096 | -.083 | -.041 | -.061 | -.086 | -.141 |
| Client language | | | | | | |
|   CT | -.139* | -.153 | -.161* | -.070 | -.213** | -.212** |
|   Self-exploration | -.180** | -.155 | -.201** | -.153* | -.236** | -.224** |

*Notes:* MICO = MI-consistent; CT = change talk; MI = motivational interviewing; HED = heavy episodic drinking; tBAC = typical blood alcohol concentration; pBAC = peak blood alcohol concentration. All regression models were run with the baseline value of the dependent variable included as covariates.
*p < .05, two tailed; **p < .01, two tailed.

*Peer behaviors*

The specific components of MI generally performed as hypothesized and in line with previous research examining professional therapist-led interventions (Apodaca & Longabaugh, 2009; Magill et al., 2014; Miller & Rollnick, 2002; Moyers et al., 2005). MICO specific skills (e.g., open-ended questions, reflective statements, and supportive/affirming statements) were significantly and positively associated with client CT and client self-exploration. Our results add to Magill and colleagues' (2014) work linking professional therapist MICO behaviors to client behaviors, suggesting that consistent with professional therapists, peer counselor behaviors within a minimal intervention have an effect on MI's purported key causal mechanism. Therefore, these data suggest that it is particularly important for PMI training to focus on increasing MICO skills among peer counselors.

MICO peer counselor skills were not found to be associated with subsequent changes in alcohol-related behaviors post-session. This is inconsistent with prior research with professional counselors indicating that MICO behaviors lead to reduced alcohol-related outcomes (Karno & Longabaugh, 2004; Miller et al., 1993). However, in a recent meta-analysis by Romano and Peters (2016), a direct link between MICO behavior and outcome was not supported. Further, in the hypothesized model (i.e., Miller & Rose, 2009), it is suggested that counselor practice may exert effects on client outcomes, through or apart from the mediation of CT. This study provides evidence for the mediation hypothesis rather than a direct effect of peer counselor–specific skills on post-session behavior change. Overall, it appears that peer counselor influence on post-session behaviors is similar to that of professional providers, indicating that few, if any, changes are needed for MI theory or training for PMIs.

*Client behaviors*

As hypothesized and proposed by MI theory, client CT was significantly and negatively associated with client outcomes, such that an increase in client CT was associated with a reduction in alcohol-related consequences, average drinks per drinking occasion, and tBAC and pBAC. Currently, the literature on this is mixed. For example, Magill and colleagues' (2014) meta-analysis found that client CT was not associated with follow-up outcome but that client ST was associated with worse outcome. These discrepant results suggest a need for further research to clarify these associations.

In addition, a significant and negative relationship between client self-exploration and client outcomes post-session was supported. Specifically, an increase in self-disclosure led to a significant reduction in alcohol-related consequences, average drinks per occasion, heavy drinking episodes, and tBAC and pBAC. This study replicates previous findings with mandated students that an increase in self-disclosure leads to reduction in alcohol use and consequences post-intervention (Borsari & Carey, 2005; Borsari et al., 2015).

*Client in-session behaviors as a mediator*

Mediational analyses revealed support for the hypothesized paths in that client CT and client self-exploration significantly mediated the relationship between MICO behaviors and alcohol use outcomes. Client self-exploration uniquely mediated the additional relationship between MICO behaviors and the reduction in alcohol-related consequences. There were no mediated effects for HED or drinking frequency.

*Limitations*

This study is not without limitations. First, it is unclear the degree to which these findings will generalize to other populations. The sample was predominantly White (94%) and was collected at a small liberal arts school. Second, this study used a within-group design and did not use a comparison group. This project aimed to examine peer counselor and client behaviors rather than differences between treatments. Indeed, much of the research examining within-session MOBCs has come from trials in which there were nonsignificant group differences (Amrhein et al., 2003; Moyers et al., 2005). Further, some research supports a citation effect
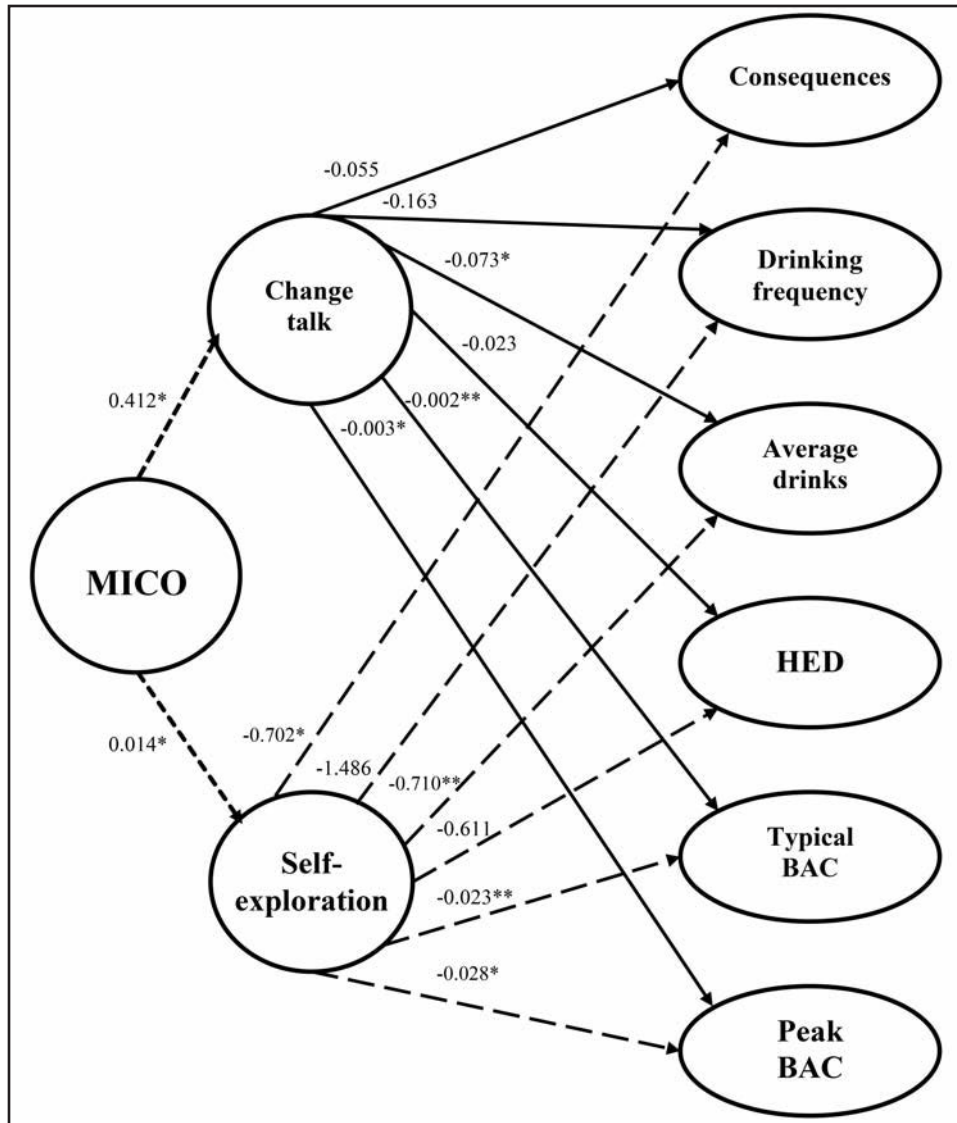
FIGURE 2.　Regression coefficients: Assessing the mediating effect of client behaviors between motivational interviewing-consistent (MICO) and alcohol outcomes at 6 weeks after peer-implemented minimal interventions. *Notes:* HED = heavy episodic drinking; BAC = blood alcohol concentration. All regression models were run with the baseline value of the dependent variable included as covariates. Solid lines = mediating effect of CT between MICO and alcohol outcomes; dashed lines = mediating effect of self-exploration between MICO and alcohol outcomes.
*p < .05, two tailed; **p < .01, two tailed.

(Carey et al., 2010; Morgan et al., 2008), in which cited students reduce their drinking before receiving any type of intervention. Although there is evidence that students reduce their use after their citation event, this change may only have a temporary influence on drinking in mandated college students (Hustad et al., 2011).

In addition, mediation was tested with a cross-sectional design and thus the hypothesized temporal associations among the variables cannot be confirmed. It is possible, for example, that client CT elicits MICO behaviors, whereas client ST could evoke MIIN language from the peer counselor. Last, the brevity of the 6-week follow-up could also be

noted as a limitation. Given the evidence that college student drinking can fluctuate considerably from week to week (e.g., Del Boca et al., 2004), a 6-week follow-up was elected to accurately assess drinking and problems following a minimal intervention and still provide more intensive treatment in a timely manner to nonresponders. However, future research would do well to examine outcomes long term.

*Conclusions*

Results of the current study replicated the relationships found with professional counselors with peers in a minimal

intervention with mandated college students. As such, it seems that the mechanisms at play within these sessions may be similar regardless of provider type. For this study, peer counselors were trained in basic components of MI (the aim was not MI proficiency), and results supported a reduction in alcohol outcomes among this population. Thus, these data support minimal training for peer counselors, and therefore a low-cost option to increase reach and administration of these sessions.

Future research would do well to examine how the MOBCs among peer-delivered interventions compare with professionally led interventions among mandated students. This is an important empirical question, as a peer approach may improve and extend access to high-risk populations. Although this study represents an important initial step in the examination of MOBCs among peer-implemented interventions, more fine-grained analyses are required to fully detect the link between in-session processes and subsequent changes in alcohol-related behaviors following a PMI.

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