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More than Taking a Chair: The Perceived Group Social Dynamics of Alcoholics Anonymous Related to Changes in Spiritual Practices

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Abstract

Alcoholics Anonymous (AA) meeting attendance and spiritual practices are established predictors of abstinence. This study utilized longitudinal data from two studies of AA to investigate 1) how perceived within meeting social dynamics in AA meetings affect later AA attendance, and thus exposure to the emphasis of spiritual practices and 2) influence the extent that spiritual gains are mobilized, beyond AA attendance. Findings revealed that greater group cohesion was associated with lower AA attrition, and that expressiveness, or openness, of the group predicted reported practice of spiritual behaviors. Findings reveal distinct group dynamics may foster distinct mechanism of change of AA attendees.

Keywords

Alcoholics Anonymous; spirituality; group dynamics; mechanisms of change

In 2014, 16.3 million individuals 18 and older in the United States qualified for an alcohol use disorder (AUD) (National Institute on Alcohol Abuse and Alcoholism, 2016). Both within in the US and globally, Alcoholics Anonymous (AA) is the most prominent pathway or informal “treatment” for recovery from AUD. It is offered as a part of specialty care within the formal health care system (Morgenstern, Bux, Labouvie, Blanchard, & Morgan, 2002) and within the community, as a part of an informal care system (Miller, Forcehimes, & Zweben, 2011). Importantly, twelve-step facilitation and subsequent AA meeting attendance are efficacious in helping individuals reduce their alcohol use (Morgenstern, Blanchard, Morgan, Labouvie, & Hayaki, 2001; Project MATCH Research Group, 1997a, 1997b), making it one of the most available and accessible evidence-supported treatments for AUD. Specifically, both AA involvement, which includes factors such as considering oneself a member and having a sponsor, and AA attendance (i.e., “taking a chair”) have been

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associated with increased abstinence (Kelly, Stout, Magill, & Tonigan, 2011; Krentzman, Cranford, & Robinson, 2013).

While research and anecdotal evidence have long supported the efficacy of AA and other 12-step programs, research identifying AA's mechanisms of action remains an important area of investigation. One potential mechanism of AA is AA-prescribed spiritual practices, which include reported acceptance and utilization of a higher power in recovery and behaviors such as meditation and prayer (Krentzman et al., 2013)--practices specifically encouraged by AA's Steps (Alcoholics Anonymous, 2001). Empirical evidence suggests that such AA-prescribed spiritual practices are an important component accounting for the salutary effects of AA across diverse populations of problem drinkers (Kaskutas, Turk, Bond, & Weisner, 2003; Tonigan, Rynes, & McCrady, 2013; Zemore, 2007), and, in some cases, predicting abstinence while controlling for frequency of AA involvement or meeting attendance (Krentzman et al., 2013; Robinson, Cranford, Webb, & Brower, 2007; Robinson, Krentzman, Webb, & Brower, 2011).

Common to all of these process-focused studies, investigators have used some permutation of frequency of AA meeting attendance as the catalyst for mobilizing changes in spiritual practices. Reliance upon this single catalyst has advantages. Foremost, the measurement of AA meeting attendance is relatively easy and reliable (e.g., Tonigan et al., 1996), and it simplifies efforts to meta-analytically combine study findings (Magill, Kiluk, McCrady, Tonigan, & Longabaugh, 2015). With this acknowledged, the use of AA meeting attendance frequency as a change catalyst has, at least, one serious limitation; the measure does not inform us how or why AA meeting attendance mobilizes later changes in spiritual practices. One hypothesized potential factor in this mobilization of spiritual practices is the social dynamics occurring within AA groups—which includes their emotional tone and perceived group cohesion.

Regardless of subject matter or diagnosis, social dynamics within group psychotherapy are thought to be fundamental to its therapeutic effects (Yalom, 2005). Group cohesion, for example, is considered the analog to therapeutic alliance in individual practice, and in and of itself is found to be reliably associated with outcome, across diagnoses and settings (Burlingame, McClendon, & Alonso, 2011). In addition, participants' perceived group expressiveness and engagement are connected to therapeutic gain (Burlingame, Fuhriman, & Johnson, 2001; Castonguay, Pincus, Agras, & Hines, 1998), while unchecked or unaddressed perceived within group aggression or conflict is not (Bloch, Crouch, & Reibstein, 1981; Kellerman, 1996).

Within the context of mutual aid groups, group social dynamics and their impact may be different given certain structures placed on participants not to "cross talk" or to avoid commenting directly on other participants' comments or shares. Despite such prescribed structures, previous studies of social dynamics in the context of AA demonstrate that there is ample diversity in structure and social dynamics across groups that may differentially impact dosage or adoption of AA ideas and philosophies, as well as outcomes. For example, one study found that 12-step groups perceived as cohesive and less aggressive by their participants were also perceived to discuss spiritual practices more than AA groups high in

aggressiveness and low on cohesiveness (Tonigan, Ashcroft, & Miller, 1995). Recent longitudinal work demonstrates that perceived social dynamics within AA predict abstinence over and above that predicted by greater frequency of meetings. For example, longitudinal studies found that perceived group cohesion directly predicted AA attendance, AA step work, and perceived usefulness of AA (Rice & Tonigan, 2012), as well as abstinence, while controlling for attendance and level of engagement in AA (Tonigan & Rice, 2013). Another study found that perceiving a group as engaged was related to both increased 12-step practices and abstinence (Rynes, Tonigan, & Rice, 2013). Interestingly, in each of these studies, regardless of AA group social dynamics, spirituality was perceived to be stressed in meetings. It remains unknown whether social dynamics directly impact this perception.

The focus of this exploratory study was to investigate how perceived social dynamics in AA meetings 1) affect later AA attendance, and thus exposure to the emphasis of spiritual practices, and 2) influence the extent that spiritual gains are mobilized, beyond AA attendance. We consider this an important first step in developing a better understanding of the multifaceted nature and influence of AA meeting attendance on spiritual gains, in particular, and on increased abstinence in general. By understanding which factors of meetings are associated with the greatest therapeutic gains, more guidance can be given to prospective AA members about the types of meetings with which they should affiliate for optimal outcomes in their long-term recovery.

Method

The sample was created by combining data from two prospective, single-group, longitudinal studies examining behavior change mechanisms in AA (R21-AA016974, R01-AA014197, PI: Tonigan). Merging of these data was feasible because the two studies (1) used recruitment strategies targeting the same locations, (2) eligibility criteria were the same, (2) multiple follow-up assessments, each three months apart, were conducted in both studies, and (3) the two studies used a common core of assessments measuring substance use, 12-step attendance and spiritual practices, and demographics. For both studies, participants early in the AA affiliation process were recruited in a Southwestern city. Early affiliation was defined as having 16 weeks of lifetime AA attendance or less. Recruitment was done at substance abuse treatment programs, community AA meetings, public flyers and advertisements, and community shelters. Inclusion criteria were: being 18 years old or older, having attended at least one AA meeting in the prior 90-days, alcohol use in the prior 90 days, and meeting fourth edition Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) criteria for alcohol dependence or abuse. Prospective participants were not eligible if they reported being alcohol abstinent for 12 months or longer at any time in their life due to recognizing they had an alcohol problem. Participants were not excluded because of past or current drug dependence or use. All procedures were approved by the institutional review board at the University of New Mexico (UNM Protocol No's. 24028 and 27147).

Self-report measures of impressions of AA group social dynamics were included in one study (TMA) from its initiation (R21-AA016974) and were added to the second study (TRACE) after recruitment was completed, during the follow-up phase (R01-AA014197).

As a result, no participants in TRACE provided baseline data on impressions of AA group social dynamics and only a subset of this sample provided 3-month ($n = 37$), 6-month ($n = 66$), and 9-month ($n = 82$) data on these constructs. Of these cases, 34 participants provided both 3 and 6-month data on the two self-report tools of impressions of AA group social dynamics (3 cases that provided 3-month data were not interviewed at the 6-month follow-up). Given that the current study aimed to examine these relationships longitudinally (e.g., social dynamics at 6 months impacting spiritual practices at 9 months), only data for these 34 cases that had data across time points were merged with the first study. This yielded a total sample of 248 subjects with complete data across 3, 6, and 9 months for inclusion in this analysis.

Procedure

Obtaining informed consent was done at the research center. Participants then completed questionnaires, interviews, and urine toxicology screens. Data from baseline, 3, 6, and 9-month assessments were merged across the two studies. Participants were compensated \$50 for the completion of each interview. Neither study offered an intervention. Participants were given referrals for treatment if interested or if research staff deemed it to be appropriate. A breathalyzer test was used to verify that blood alcohol content (BAC) was .05 or less before signing informed consent and at each interview.

Measures

Demographic interview.—This 17-item interview collected information about participant age, years of education, employment status, occupation, income, ethnicity, preferred language, residence status and contact information.

Substance use.—The Form 90 (Miller & Del Boca, 1994) is a calendar-based semi-structured interview used to collect reports of daily alcohol use. Two substance use measures were computed from the Form 90. Proportion of days abstinent from alcohol (PDA) was calculated as the number of alcohol-free days in an assessment window divided by the total number of days in the period. Drinks per drinking day (DPDD) was calculated as number of drinks consumed per drinking day divided by the number of drinking (i.e., non-abstinent) days in the assessment window. Good reliability for the Form 90 has been reported for the measures of PDA ($r = .79$ for outpatient samples; $r = .97$ for aftercare samples), and DPDD ($r = .94$; $r = .95$).

AA meeting attendance.—Data from the Form 90 interview was used to compute the proportion of days in which participants attended a 12-step meeting. Specifically, the reported number of days of 12-step attendance was divided by the total number of days in an interview period to derive proportion of days of AA attendance during a three-month period. Proportion of days of AA attendance was calculated for 1–3 months and 4–6 months.

AA attrition.—Dichotomous variables were created to indicate whether a participant reported AA attendance at the 3-month interview and the six-month interview (coded 0 = not attending AA, 1 = attending AA).

Spiritual practices.—The General Alcoholics Anonymous Tools of Recovery (GAATOR, Greenfield & Tonigan, 2013; Montgomery, Miller, & Tonigan, 1995) consists of 24 self-report items that indirectly assess the extent to which a participant endorses and has practiced the beliefs and behaviors prescribed in the 12 steps. All items in the GAATOR have a 4-point Likert response scale that ranges from 1 (Definitely false) to 4 (Definitely true). Psychometric work indicates the presence of two scales in the GAATOR: Behavioral Step-Work (steps 4, 5, 8, 9, 10, and 12) and Spiritual Step-Work (Steps 1, 2, 3, 6, 7, and 11). Prior to constructing scales, item responses of 1 and 2 were recoded to 0 and item responses of 3 and 4 were recoded to 1. Only the Spiritual Step-Work scale was used for the present analysis, and it consisted of 10 items on spiritual beliefs or behaviors that map on to each of these identified spiritual steps. These items relate to acceptance and utilization of a higher power to aid in recovery, prayer and meditation. For example, “I have been ready to let my Higher Power remove my shortcomings;” “I have turned my will and my life over to my Higher Power”; and “I have prayed and meditated.” Cronbach’s alpha for the spiritual step-work subscale was .88.

AA group social environment.—Participants were asked to first think of the meeting that they “attend most frequently or their home group”, and then they were asked to evaluate the social dynamics of that group using two measures. The Group Environment Scale (GES, Moos, 1986) has 10 dimensions (90-items). The GES has been normed extensively and each scale has good psychometric properties. The research version of the GES has 56 five-point Likert scaled items (strongly disagree to strongly agree). This shorter assessment was used, and it yielded seven scales related to social environment: Cohesion, Expressiveness, Innovation, Anger and Aggression, Order and Organization, Independence, and Self-discovery. Only scores from the Cohesion, Expressiveness, and Self-discovery scales were used, as they were the most relevant to the goals of the current study. Sample items include, “There is a feeling of unity and cohesion to this group” (Cohesion, Cronbach’s alpha = .77), “When members disagree with one another, they usually say so” (Expressiveness, Cronbach’s alpha = .42), and “Personal problems are openly talked about” (Self-Discovery, Cronbach’s alpha = .46). The Group Climate Questionnaire, short form (GCQ, MacKenzie, 1983) was administered to measure impressions of social climate. Popular in the broader mental health field (Johnson, Burlingame, Olsen, Davies, & Gleave, 2005), subscales of the GCQ have demonstrated value in predicting clinical outcomes. This questionnaire has 12-items that measure the extent that a group is perceived to facilitate Engagement (5 items, Cronbach’s alpha = .75), Avoidance (3 items, Cronbach’s alpha = .48, and Conflict (4 items, Cronbach’s alpha = .82). All items are on a 7-point Likert scale with the anchors, “Not at all” to “Extremely”. Sample items of the GCQ are: “The members felt what was happening was important and there was a sense of participation” (Engagement); “The members depended on the group leader(s) for direction” (Avoidance); and “The members rejected and distrusted each other” (Conflict).

Analytic Plan

Demographic and baseline characteristics of the included and excluded participants for the current analyses were examined using chi square tests for categorical measures and *t*-tests and one-way ANOVA for continuous measures.

AA attrition predicted by AA group social dynamics.—Four logistic regressions (LR) were used to assess the extent that GCQ and GES scales predicted AA attrition. The first two of the four LR models examined if the three GES scale scores, at 3 and 6 months, separately predicted AA attrition at 3 and 6-months, respectively. The third and fourth LR asked the same question using the three GCQ scale scores, again for the respective time points. Cross-panel Pearson correlations were computed to further examine the nuances between impressions of AA social group dynamics and current and later AA meeting attendance.

Social dynamics predicting spiritual gains.—Finally, six hierarchical multiple regressions were implemented to investigate the unique associations between impressions of GES and GCQ scales and gains in spiritual practices, after controlling for baseline spiritual practices (baseline spirituality was measured in both samples, and thus was used as a covariate) and past and concurrent AA meeting attendance. The outcome measure in each of these HR was the GAATOR spirituality subscale score collected at 9-month follow-up, with baseline values of this measure entered in step one. During, step two, proportion of days of AA attendance during months 1–3 and 4–6 were entered. In the third step, the GCQ or GES scales for both 3 and 6 months were entered. Figure 1 shows the conceptual model for this part of the analysis. As shown, models were constructed longitudinally to examine the unique prediction of 3 and 6 month impressions of AA group social dynamics on pre-post changes in spiritual practices controlling for AA attendance, months 1–6.

Results

Data for 248 participants resulted from merging the two studies together. Table 1 shows the baseline characteristics of participants for each original study, comparing those who were included in this analysis versus those who were excluded. As shown, included and excluded participants were quite similar on key measures at baseline, with the exceptions that excluded participants were disproportionately male and, on average, TRACE study participants drank alcohol more intensely (DPDD) relative to participants in the TMA study.

Table 2 shows the descriptive statistics for the measures of central interest for the planned analyses. As shown, paired *t*-tests indicated that pre-post group means on all nine measures were relatively stable between the two follow-up assessments, with mean pre-post differences representing only sampling error (all $p > .05$). On average, GCQ measures revealed that participants reported AA group social dynamics were “often” engaging and “sometimes” avoidant. In contrast, on average, participants reported that AA group social dynamics were “rarely or very infrequently” perceived as having conflict. At the group level, participant responses on the GES were, on average, non-committal about AA group social dynamics. Specifically, pre and post mean values on perceptions of AA group cohesiveness, expressiveness, and extent of self-disclosure all hovered in the “unsure” range of the Likert scale (1–5).

AA Attrition Predicted by Group Social Dynamics

Participants had to report attending at least one AA meeting in the 90-day period before study recruitment to be eligible for this study. Within this context, 20.2% of the sample

discontinued AA attendance during the first three months (i.e., endorsed attrition from AA), and at the 6-month follow-up, 27.5% of the participants no longer attended AA. Seventeen participants reported AA attrition at months 3 and continued to not attend AA at the 6 month follow-up.

Attrition at three months.—Considering 3-month AA attrition first, the omnibus LR test with the three GCQ scales was significant, $\chi^2(3) = 17.07, p < .001$, indicating that the model had identified systematic variance and provided good model fit. The predictors accounted for 11% of the variance in the outcome variable. In this model, only GCQ Engagement was significant ($b = 1.06$, Wald statistic = 11.52, $p < .001$), such that remaining in AA was associated with higher ratings of the “engagedness” of AA groups. Likewise, the omnibus LR test was significant when the AA attendance status variable was regressed on the three GES predictors, $\chi^2(3) = 20.46, p < .001$ (the model accounted for 13% of the variance). In this model, only GES Cohesion was significant ($b = 2.19$; Wald statistic = 10.63, $p < .001$), suggesting that remaining in AA was significantly and positively associated with stronger perceptions of the cohesiveness of AA groups.

Attrition at six months.—Both LR prediction models for the 6-month follow-up were non-significant.

Correlations of AA Attendance and Group Social Dynamics.

Table 3 presents the Pearson correlations between the six GES and GCQ scales and proportion day’s AA attendance during months 1–3 and 4–6. Several points arise in connection to Table 3. First, Table 3 is organized to provide all possible cross-sectional and temporal correlations among the predictors. To illustrate, GCQ Engagement and proportion days AA attendance were significantly associated, $r = .27$, when both were collected at the 3-month follow-up. Further, higher rates of AA attendance in months 1–3 was associated with stronger perceptions of GES Engagement at 6-months, $r = .22$. In contrast, perceptions of GCQ Engagement for months 1–3 were unrelated to later AA attendance (months 4–6) and, at 6-months, GCQ Engagement and AA attendance were unrelated, $r = .10$. Second, all four possible combinations examining the associations between the GES Self-Disclosure and the GCQ Avoidance scales and AA attendance were non-significant.

Social Dynamics Predicting Spiritual Practices

Only one of the six HR satisfied the condition that the third block (one of the GCQ or GES scales, at either 3 or 6 months) in an HR accounted for a significant increment of variance and that the slope coefficient associated with a particular social dynamic predictor was significant. Specifically, controlling for baseline spirituality score and AA attendance (months 1–6), entering GES Expressiveness accounted for 8% of the variance in the 9-month spirituality measure, $F(2, 133) = 7.39, p < .001$. Inspection of slope coefficients associated with GES Expressiveness scales at both time points (months 1–3 and 4–6) indicated that impressions of AA group expressiveness were complex. In particular, gains in spiritual practices were negatively and significantly associated with impressions of AA group expressiveness in months 1–3 ($b = -3.73, p < .001$), but significantly and *positively* associated with such impressions collected at the 6-month follow-up ($b = 3.40, p < .001$).

Discussion

Gains in AA-prescribed spiritual practices--such as acceptance and utilization of a higher power in the recovery process, prayer, and meditation--are a demonstrated mechanism accounting for the salutary effects of AA. To date, frequency of AA meeting attendance has been considered the sole catalyst accounting for such gains. Our findings suggest that perceptions of AA meeting social dynamics and, in particular, the extent that individuals sense encouragement and safety in expressing feelings in meetings, is one way that AA mobilizes spiritual gains. The change in the direction of the relationship from three to six months may indicate a migration of participants from attending meetings that are less expressive to meetings with those with greater expressiveness over time. Interestingly, expressiveness was not associated with AA attendance (months 1–3), which highlights the extent of its independent relationship with spiritual gain.

Expressiveness as Fostering Spiritual Practices

There are several possible interconnected explanations for why expressiveness may drive an increase in spiritual practices. First, it may be that as individuals are exposed to AA, hearing others' stories, which may include use of spiritual practices, becomes normalized. Thus, role modeling (Rotgers, 2003) may be an important component to how individuals acculturate in AA and subsequently subscribe to its tenets regarding spiritual growth. How AA members avoid, seek, and/or benefit from spiritual practices is a common discussion theme in AA meetings and its literature. For example, because the adoption of an AA prescribed spiritual framework is difficult for many, the core AA literature devotes chapters to the topic (e.g., "How it Works", "We Agnostics", Alcoholics Anonymous, 2001). Presumably, the more that meetings have open, disclosing discussions on spirituality, the more likely early AA affiliates will hear something relevant to their own needs, as well as to share their own personal obstacles (and successes) to achieving spiritual gains.

Spiritual practices are often centered on the concept of connection to a "higher power," a central component of 12-step based recovery (e.g., steps 2 and 3). It also may be that the expressiveness of the group somehow taps into the concept of using the group itself as a higher power. Despite the repeated references to generally monotheistic religions within meetings and AA literature, members are genuinely encouraged to find a higher power that best fits their unique recovery needs (Alcoholics Anonymous, 2001). One alternative to a religious perspective of higher power is using the group or fellowship for that role. The radical acceptance that one may feel from being able to express themselves freely within an AA group may foster the sense that an individual is "turning it over to their higher power", a behavior encouraged as a part of spiritual growth (Alcoholics Anonymous, 2001).

Aspects of Attrition

Our finding that impressions of AA group cohesiveness and engagedness were significant predictors of early AA attrition, with lower impressions of AA group cohesion and engagedness being associated with higher rates of AA disaffiliation, was also noteworthy. Interestingly, group cohesion and engagedness did not predict spiritual gains. Several studies have reported that stronger impressions of AA group cohesiveness predicted later

abstinence, and in planning this study, it seemed reasonable to infer that this action occurred because impressions of cohesiveness mobilized and supported the acquisition of spiritual practices. A priori, we hypothesized that cohesiveness implies a sense of unity, singleness of purpose, and consequently a willingness to adopt prescribed spiritual practices. This was not the case. Our findings indicated that impressions of AA group cohesiveness were primarily associated with continued AA meeting attendance, both at 3 and 6-month follow-up. Awaiting replication, it appears that impressions of AA group cohesiveness may mobilize increased engagement in the AA social network, another demonstrated mechanism of change in AA.

Potential Drivers of Social Dynamics within AA Meetings

It remains unknown which aspects of an AA meeting might facilitate perceptions of particular group dynamics. For example, the structure of the group itself (e.g., “round-robin” style where everyone who wishes to get a chance to share versus a meeting with a single speaker, also called a “qualifier,” with limited additional shares by attending members) may impact the level of perceived expressiveness, cohesion, or engagedness. Additional research is needed to help further isolate the attributes of AA that lead to specific group dynamics and subsequent outcomes. Objective measures of group structure, number of attendees (e.g., group size), group tenure (e.g., ratio of regulars vs. first time attendees), gender ratio or make-up, and specific session topics (e.g., step study) are all aspects of AA meetings that may enhance or hinder specific group social dynamics and thus are worth future exploration.

Clinical Implications

Interestingly, impressions of the cohesiveness and expressiveness of AA meetings are relatively distinct ($r = .44$), and it appears that they may be predictive of different sets of AA prescribed behaviors. Knowledge of these distinctions should be considered by professionals when encouraging AA meeting attendance or encouraging the practice of AA-prescribed spiritual practices. Professionals might specifically encourage their clients to pursue meetings where they feel most engaged and perceive a high level of cohesion and expressiveness. Reinforcing these points within formal treatment programs where peer-led or professionally facilitated 12-step meetings may occur may be important for long term clinical gains.

Limitations

Consideration of the perceived quality of AA meetings offers substantial promise for understanding how AA works, but it also presents serious challenges. Foremost, it is not feasible to obtain an *objective* measure of AA meeting social dynamics while respecting the anonymity of the individual and the autonomy of the group. We are, ultimately, faced with the question, are the perceived social dynamics in AA meetings mutually perceived with some degree of agreement or, instead, are such impressions idiosyncratic to the person? While this question remains unanswered, it is important to note that in psychotherapy research on common factors in which client perception is compared to therapist perception, such as in the case of therapeutic alliance or level of therapist empathy, client perception is the most consistent and robust predictor of therapeutic outcomes (Greenberg, Elliot, Watson, & Bohart, 2001).

Other methodological limitations influence the conclusions that can be drawn from this study. First, participants were asked to answer questions about the meeting they attend most or their home group, which could have changed over time. It may be that social dynamics of the meetings prompted such a change. Unfortunately, these nuances of the relationship of participants to a particular AA meeting were not captured. Analyses also do not rule out rival explanations for relationships with AA attendance and spiritual gains, as all possible confounders were not included. For example, cohesion did not predict AA attendance at 6 months. One explanation for this could be that cohesion and engagement are more critical for initiation of AA, but other unmeasured factors are more influential over AA attendance at 6 months. Another potential limitation of the study might be the relatively low Cronbach's alpha, a measure of how well items measure a singular construct, for the Expressiveness scale. This alpha is inconsistent with use of this measure across samples. It may be that this sample did not see Expressiveness as a unitary construct; nevertheless, the scale remained sensitive enough to yield a significant finding. It may be that the group dynamics within AA meetings are less understood than the dynamics of other groups. Finally, findings are limited in their generalizability to the extent to which this sample is representative of AA members at large. Unlike the demographics reported on the *Alcoholics Anonymous 2014 Membership Survey* (https://www.aa.org/assets/en_US/search/p-48-aa-membership-survey), our samples included a larger proportion of females (around 50% compared with 38%) and a much smaller proportion of White participants (around 35% compared with 86%). Thus these findings might only apply to AA members and groups with large proportions of women and non-White participants.

Conclusion

Together, these findings provide evidence that the *qualities* of AA meetings may be as important as the sheer volume of meetings attended in mobilizing an AA change mechanism. This is an important advancement beyond the dose-response model typically used in understanding how and why AA is beneficial for many problem drinkers. It would appear that the therapeutic effects of AA social dynamics are far more complex than hypothesized—with distinct social dynamics affecting AA drop-out or group maintenance, spiritual practices, and outcomes. Different social dynamics may play unique roles in distinct mechanisms of change within AA. In sum, findings suggest that impressions of the qualities of AA meeting are important in understanding why some problem drinkers remain in AA during early affiliation and also in mobilizing prescribed spiritual practices—two known predictors of long term abstinence.

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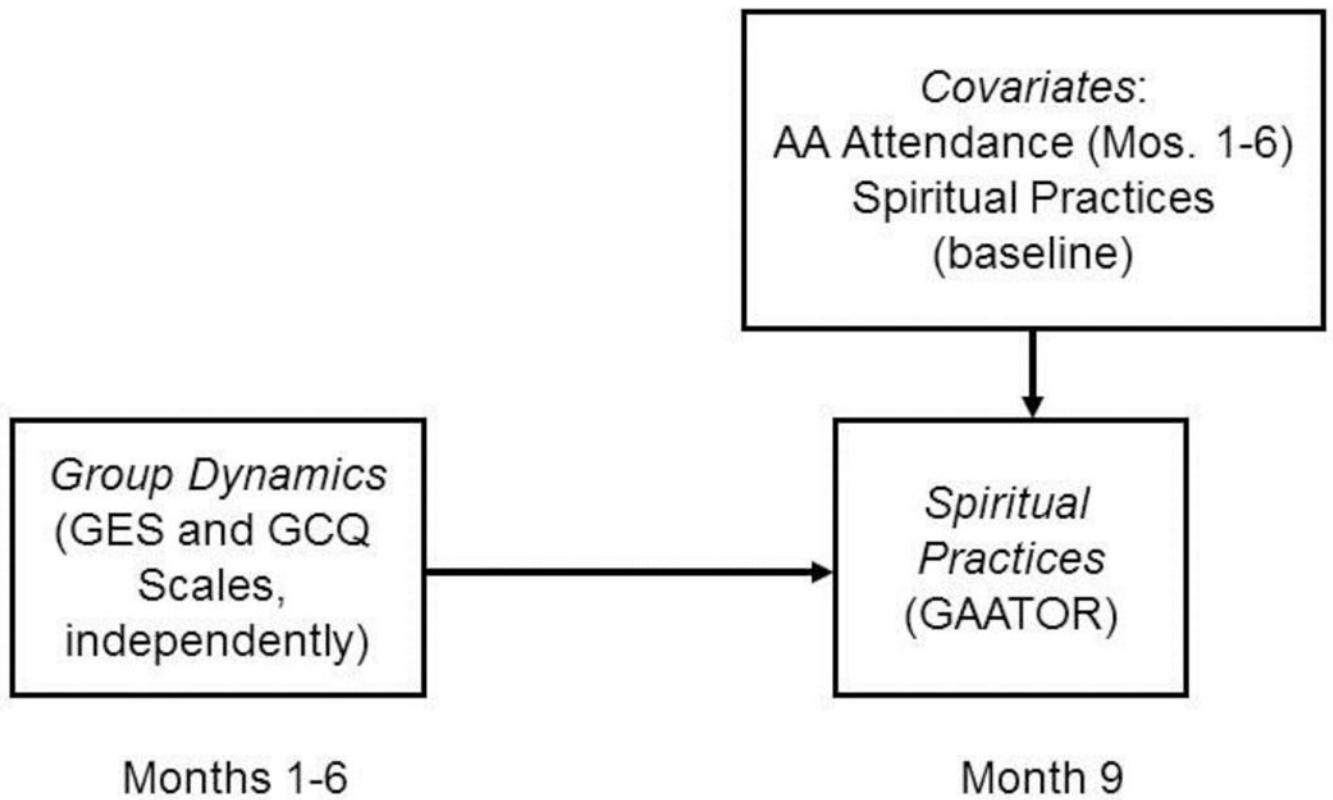


Figure 1.
Conceptual model for the impact of social dynamics on spiritual practices.

Table 1

Descriptive Statistics on Included and Excluded Study Participants by Parent Study at Baseline

	TMA Study		TRACE Study		p-value
	Included (n=114)	Excluded (n=16)	Included (n=34)	Excluded (n=219)	
Male	49%	88%	50%	69%	.01
White	35%	38%	26%	36%	.75
Age	39.2 (9.7)	34.7 (8.3)	40.8 (9.2)	38.3 (9.8)	.17
Years Education	12.6 (3.2)	11.9 (1.7)	12.5 (2.4)	12.8 (2.8)	.61
ADS ¹	48.4 (10.0)	44.4 (10.3)	49.8 (9.1)	48.6 (9.3)	.34
PDA ²	.54 (.31)	.70 (.31)	.57 (.32)	.53 (.30)	.13
DPDD ³	14.1 (9.2)	13.4 (8.7)	16.7 (8.6)	17.9 (13.2)	.03
Prop. AA ⁴	.16 (.19)	.25 (.26)	.12 (.12)	.18 (.19)	.13
Spiritual Practices ⁵	20.1 (7.7)	18.1 (8.6)	21.4 (9.5)	18.8 (8.7)	.24

¹Alcohol Dependence Severity²Proportion abstinent days 90 days before baseline³Number drinks per drinking day⁴Proportion days of AA attendance 90 days before baseline⁵Total score Religious Behaviors and Background

Table 2

Descriptive Statistics for Months 1–6 of Primary Measures of Interest (N = 148): Means (SD)

	Months 1–3	Months 4–6	p-value
Percentage of Participants Attending AA	79.8%	72.5%	--
Proportion of Days of AA Attendance	.24 (.31)	.22 (.28)	.48
GAATOR Spiritual Practices	11.7 (5.8)	12.0 (5.5)	.63
AA Group Dynamics			
GES Cohesion	3.4 (.49)	3.4 (.46)	.46
GES Expressiveness	3.2 (.46)	3.2 (.41)	.57
GES Self-Discovery	3.4 (.50)	3.4 (.46)	.41
GCQ Avoidance	4.1 (1.1)	4.0 (.98)	.46
GCQ Engagement	4.6 (1.1)	4.5 (1.0)	.14
GCQ Conflict	2.9 (1.2)	2.8 (1.2)	.45

Note: AA=Alcoholics Anonymous; GAATOR= General Alcoholics Anonymous Tools of Recovery; GES=Group Environment Scale; GCQ= Group Climate Questionnaire.

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Table 3

Bivariate Correlations between Perceptions of AA Group Social Dynamics and Frequency of AA Meeting Attendance

AA Group Dynamics	AA Attendance Months 1–3	AA Attendance Months 4–6
Group Environment Scale (GES)		
Cohesion Months 1–3	.28*	.17*
Cohesion Months 4–6	.20*	.24*
Expressiveness Months 1–3	.06	.02
Expressiveness Months 4–6	.07	.18*
Self-Discovery Months 1–3	.00	–.03
Self-Discovery Months 4–6	.11	.13
Group Climate Questionnaire (GCQ)		
Avoidance Months 1–3	–.04	–.06
Avoidance Months 4–6	.01	.04
Engagement Months 1–3	.27*	.10
Engagement Months 4–6	.22*	.10
Conflict Months 1–3	–.20*	.10
Conflict Months 4–6	–.14	–.15