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Does Initial Treatment Focus Influence Outcomes for Depressed Substance Abusers?

Michelle L. Drapkin, Ph.D., **Susan R. Tate, Ph.D.**, **John R. McQuaid, Ph.D.**, and **Sandra A. Brown, Ph.D.**
VA San Diego Healthcare System and University of California, San Diego

Abstract

Interventions for alcohol and substance dependent adults with comorbid depressive disorders are needed, but few have been empirically tested. In a randomized clinical trial of two psychotherapy interventions for these disorders, we examined whether initial focus of treatment was related to retention, substance use, and depression outcomes. Both interventions, Integrated Cognitive Behavioral Therapy (ICBT; n=105) and Twelve Step Facilitation (TSF; n=92), were delivered in group formats with entry points every four weeks at the beginning of three content-distinct modules. Entry module (i.e., initial treatment focus) was not related to percentage days abstinent, proportion of the sample abstinent, or depression symptoms for either intervention. This was true at both 12 and 24 weeks post baseline. Furthermore, attendance was similar for both treatments, regardless of initial treatment focus, with a single exception in the ICBT condition. Our findings support the use of modular formats with multiple or rotating entry points for psychotherapy group interventions.

1. Introduction

The co-occurrence of substance use disorders (SUDs) and other mental health disorders is highly prevalent, with depressive disorders being the most common comorbidity (US Substance Abuse and Mental Health Services Administration, 1999). The need for interventions specifically tailored to these comorbid disorders has been advocated, but few clinical trials have been conducted. We developed two psychotherapy interventions for individuals with comorbid SUDs and depression (Brown et al., 2006). The addiction portions of our interventions were based on the treatments utilized in the Project MATCH study: the Twelve Step Facilitation (Nowinksi, Baker, & Carroll, 1994) and the Cognitive-Behavioral Coping Skills (Kadden et al., 1994) interventions. Along with the addiction-focused Project MATCH Cognitive-Behavioral Coping Skills manual, we incorporated depression treatment from the Munoz and Miranda (1996) manual into our new Integrated Cognitive Behavioral Therapy (ICBT; Brown et al., 2006). An issue that has been raised in efficacy studies concerns the delivery method of the treatments: most research interventions are provided in an individual format, which maximizes the internal validity but limits the generalizability to standard treatment delivery scenarios (Persons & Siberschatz, 1999).

Corresponding author: Sandra A. Brown, Ph.D., Department of Psychology (0109), University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0109. Electronic mail may be sent to sanbrown@ucsd.edu. Telephone: 858.642.7563; Fax: 858.552.7414.

Group formats are not only more typical in addiction settings but are hypothesized to be more effective due to their social facilitation effects (Kadden et al., 1994; San, 1999).

Consequently, in addition to other changes we modified the Project MATCH interventions from individual to group formats. However, one difficulty associated with group formats is utilizing a single entry point for all participants, resulting in a longer waiting period for patients (in our case, once every 12 weeks). An alternative is to allow for more frequent entry points, which has the disadvantage of participants starting at different points in the interventions. Following the model put forth by Munoz and Miranda (1996), we rejected the 12-week waiting period as too long, and therefore adapted our interventions to a three-module format, each module lasting four weeks and covering distinct topics. Participants entered treatment at the beginning of any of the three modules. Our preliminary findings document similar reductions for both the ICBT and TSF interventions in substance use and depression symptoms during the 24 week active treatment phase (Brown et al., 2006). However, although these adjustments permitted group delivery of our interventions with acceptable waiting periods, they raised the question of whether treatment response might differ based on which module was received first.

The design of the current clinical trial allowed us to examine whether initial focus when entering treatment (i.e., the beginning module for each participant) affected treatment retention and outcome. ICBT was parsed out into three discrete modules: a Thoughts module, an Activities module, and an Interpersonal module. Every session, regardless of module, focused on both substance use and depression. We were, therefore, able to examine if starting with a particular component of ICBT was more effective in ultimately reducing substance use or depression, or retaining participants in treatment. Previously, others have shown that depressed individuals had similar outcomes utilizing the Munoz and Miranda (1996) manual with a modular format regardless of which module was presented first (McQuaid, Callaghan, Laumakis, Pedrelli, & Guarino, 1998).

The effect of the initial treatment focus and the importance of timing of change have been discussed widely in the psychotherapy treatment literature, especially for depression treatments. For example, Ilardi and Craighead (1994) observed that in seven of the eight major efficacy studies of cognitive behavior therapy (CBT) for depression, 60-70% of the total change in depression occurred within the first three weeks of the treatment and surmised that these changes were too early to be related to the “cognitive” component of CBT. Additionally, research has examined specific components of CBT (e.g., behavioral activation, automatic thoughts, etc.), comparing the effectiveness of one component over another (Jacobson et al., 1996; Zeiss, Lewinsohn, & Munoz, 1979). However, to date, there are no conclusive guidelines available as to the order of presentation of CBT interventions. Therefore, understanding the impact of initial treatment focus on outcomes has important clinical and research ramifications.

We based our comparison intervention on Twelve Step interventions, as these are one of the most widely used components of addiction treatment programs. The Twelve Step Facilitation Therapy Manual used in Project MATCH (Nowinksi et al., 1994) begins with Steps 1, 2, and 3, followed by encouragement of involvement in Twelve Step activities (attending, participating, and volunteering at meetings, readings, getting a sponsor, using telephone support). In Project MATCH, these sessions are followed by elective topics that include core topics in Twelve Step (helpful slogans and memory devices) and Steps 4 and 5. Individual delivery of Project MATCH interventions provided for presentation of these sessions in the accepted sequence for all participants, consistent with the Twelve Step premise of orderly progression through the Steps. In our Twelve Step Facilitation (TSF) modification which allowed for group delivery, one module focused on Steps 1, 2 and 3

(Steps 1-3 Module), a second module focused on core topics discussed in many AA/NA meetings and Twelve Step literature (e.g., helpful slogans and memory devices; Core AA/NA Topics Module), and the third module focused on Steps 4 and 5 (Steps 4-5 Module). The group format with entry points at the beginning of each module meant that some individuals began at a traditional Twelve Step point (i.e., Steps 1-3 Module) while others started with the Steps 4-5 Module or Core AA/NA Topics Module. It is possible that individuals who are presented Twelve Step principles in the prescribed order benefit more than individuals who receive these principles out of the accepted order. We found no research examining this unquestioned premise. However, many individuals with alcohol and substance use disorders have previously been exposed to Twelve Step programs and could benefit even when topics are presented out of the prescribed order.

The current study examined the effect of initial treatment focus (i.e., entry module) on substance use and depression outcomes in this comorbid sample. Furthermore, due to high attrition rates in alcohol and drug treatment programs (e.g., Dobkin, DeCivita, Paraherakis, & Gill, 2002; McKay et al., 1998), we also examined whether initial treatment focus affected retention in treatment.

2. Materials and methods

Participants

Participants were recruited from the Substance Abuse Mental Illness (SAMI) clinic, a dual diagnosis outpatient program at the Veterans Affairs San Diego Healthcare System (VASDHS). The study was approved by the VASDHS and the University of California, San Diego Human Research Protections Program. Consecutive referrals to the SAMI program were screened for study inclusion criteria: 1) current DSM-IV alcohol, stimulant or cannabis dependence with substance use in the prior three months, and 2) current depression symptoms and lifetime diagnosis of major depressive disorder or dysthymia independent of alcohol/substance use. Potential participants were excluded if they: 1) met criteria for bipolar disorder or a psychotic disorder, 2) met criteria for current opiate dependence through intravenous administration, 3) lived too far away to participate in twice weekly psychotherapy sessions, or 4) had significant memory impairments that would impair accurate recall for study assessments. The Project Coordinator described the study to potential participants and obtained written UCSD and VA approved informed consent. Participants agreed to be randomized to one of the two study interventions and agreed not to participate in any other treatment for depression or substance use disorders during the 24 weeks of the study treatment with two exceptions: pharmacotherapy and community Twelve Step meetings.

Ninety percent of the eligible veterans who were approached to participate in the study gave informed consent. Those refusing consent included one person who expressed feeling overwhelmed by the research assessments, one person who preferred treatment to address anxiety rather than depression, and the remainder refused randomization to treatment condition. A total of 232 veterans gave informed consent and were randomized to one of the two interventions. Two participants who died during treatment were excluded from analyses. Follow-up assessments were conducted only with the portion of the sample considered to have adequate exposure to the treatments, defined as attending a minimum of 8 of the possible 36 sessions. Thus, 33 participants were dropped from analyses (9 did not attend any therapy sessions, 24 attended one, but less than 8 sessions, median = 2), and none of these participants completed the intake assessment. The percentage of dropped participants did not differ across groups (Integrated Cognitive Behavioral Therapy (ICBT) = 15.9%, Twelve Step Facilitation Therapy (TSF) = 12.5%, χ^2 (1, 230) = .53, p = .47). Dropped participants did not differ from those included in analyses on demographic variables except age:

participants who dropped out of treatment early were younger (M = 45 years, SD = 9 years) than included participants (M = 49 years, SD = 8 years; F (1,230) = 4.66, p = .03). The study sample included 197 participants, with 105 (53%) randomized to ICBT and 92 (47%) to TSF. Table 1 lists demographics by treatment group; no significant group differences were detected. Additionally, demographic variables did not differ across entry modules. Number of sessions attended was documented for all 197 participants, and 175 (89%) provided data at the 12 week assessment (2 participants refused further research participation and 20 participants were lost to follow-up).

Procedure and Description of Interventions

Participants were sequentially randomized to one of the two treatment groups, ICBT or TSF, delivered in a group format. The initial phase of both interventions lasted for 12 weeks and consisted of twice-weekly one-hour group sessions (total of 24 sessions). Each of the three modules consisted of four weeks (eight sessions), and new participants could enter at the beginning of each module. The follow-up phase lasted an additional 12 weeks, consisting of once-weekly one-hour group sessions reviewing the material presented in the initial phase (total of 12 sessions). Participants in both groups also met approximately once monthly with a SAMI psychiatrist for pharmacotherapy appointments using standard VA protocol for major depressive disorder (e.g., Selective Serotonin Reuptake Inhibitors and atypical antidepressants).

As previously noted, the ICBT intervention combined elements from two empirically validated manualized interventions: Group Therapy Manual for Cognitive-Behavioral Treatment of Depression (Munoz & Miranda, 1996) and Coping Skills Training of Project MATCH (Kadden et al., 1994). Each session followed a similar structure: (a) review of the weekly agenda and group topics; (b) review of homework; (c) presentation of didactic information and in-group skills practice; and (d) homework assignment. The Thoughts module focused on identifying and changing dysfunctional cognitions and practicing thought challenging techniques in situations that lead to depressive symptoms and/or high-risk substance relapse situations. The Activities module included material on identifying, scheduling, and evaluating the effectiveness of pleasurable activities for improving mood and managing pressures to drink or use and other risk situations. The Interpersonal module consisted of assertiveness training and effective communication skills designed to increase positive interactions and increase efficacy for coping with social pressure to drink or use.

The TSF intervention was based on the Twelve Step Facilitation Therapy Manual of Project MATCH (Nowinksi et al., 1994). As previously noted, the three modules covered were Steps 1-3 Module, Core AA/NA Topics Module, and Steps 4-5 Module. Each session included a review of readings, new didactic material, and discussion of recovery tasks including encouragement to attend community 12-step meetings regularly and acquire a sponsor. Participants were provided standard 12-step readings: AA Big Book (Alcoholics Anonymous, 1976), Twelve Steps and Twelve Traditions (Alcoholics Anonymous, 1953), and Living Sober (Alcoholics Anonymous, 1953). Depression issues were managed in relation to TSF themes and by suggesting patients address depression symptoms with the psychiatrist during medication management appointments.

All treatment was provided by two therapists (a more senior clinician and a doctoral level practicum student). Therapists changed every 1-2 years, were trained in both ICBT and TSF treatments, and typically switched from one condition to another every 6-12 months to counterbalance therapist effects. They met weekly with a study Co-Investigator for supervision, which included videotape review to monitor adherence to the treatment condition.

Research Assessments

Research assessments were conducted at intake, at the end of the initial phase of treatment (12 weeks post baseline), end of follow-up treatment (24 weeks post baseline), and quarterly thereafter for one year. Current analyses include intake and 12 and 24 weeks post baseline assessments.

Measures

Clinical diagnoses—The Composite International Diagnostic Interview (CIDI, Robins et al., 1998) was developed by the World Health Organization to provide a structured interview format for assessing psychiatric symptoms. We administered the computerized interview and scoring version of the CIDI at intake. The CIDI identifies symptoms occurring solely in the context of alcohol and substance use and thus distinguishes between independent and substance induced psychiatric disorders. All participants were required to meet lifetime criteria for a major depressive disorder independent of substance involvement to be included in the study.

Substance Use—The Timeline Followback (Sobell & Sobell, 1992) modified to incorporate substance use was used to measure alcohol and drug use for the three months prior to treatment entry and for the initial 12 weeks of treatment. The quantity of alcohol consumed was assessed for each day and other substances were coded dichotomously (abstinence versus any use for each substance) for each day. The TLFB has been shown to be valid and reliable in addiction treatment samples and with psychiatric patients (e.g., Carey, Carey, Maisto, & Henson, 2004; Fals-Stewart, O'Farrell, Freitas, McFarlin, & Rutigliano, 2000; Maisto, Sobell, & Sobell, 1979). For current analyses, percentage days abstinent for the initial 12 weeks following treatment entry and the second 12 week period were calculated from the TLFB to evaluate the effect of starting module on substance use outcomes. If a research follow-up assessment was missed, the TLFB assessment was completed at the next follow-up assessment for both time periods.

Depression Symptoms—The Hamilton Depression Rating Scale (HAM-D, Hamilton, 1960) was used to assess depression symptoms for the preceding week. The HAM-D is a structured clinical interview consisting of 21-items scored on a 0 – 4 point scale (range 0 – 84). The HAM-D has been evaluated in alcohol dependent populations, with demonstrated sensitivity and specificity (Willenbring, 1986). For the current study, the summed total HAM-D score was used as the dependent variable for evaluating effect of starting module on depression outcomes.

Data Analytic Plan

Analyses were conducted separately for the two treatment groups as the interventions and modules in each were qualitatively different. The three modules in each intervention were coded and used as predictors of outcomes (attendance, depression symptoms, and percentage days abstinent). As previously noted, analyses for attendance were restricted to the portion of the sample that had attended at least one psychotherapy session. For treatment outcomes (substance use and depression), analyses were conducted on the portion of the sample with research follow-up assessments, designated as those participants who had attended at least eight sessions. ANOVAs were used to compare number of sessions attended, HAM-D scores, and percentage days abstinent by treatment starting module. We also controlled for baseline severity of depression for the depression analyses. Chi-square analyses were used to examine dichotomously coded abstinence versus any use by entry module.

3. Results

Substance Use

The TLFB assessment was available for 175 participants at 12 weeks, and 156 participants at 24 weeks. We did not find a significant effect of initial treatment focus on percent days abstinent (PDA) at 12 weeks in either the ICBT or TSF group, F (2, 91) = 1.54, $p = .22$ and F (2, 78) = 0.35, $p = .71$, respectively. Similarly, we did not find a significant effect of initial treatment focus on PDA at 24 weeks in either the ICBT or TSF group, F (2, 77) = .46, $p = .63$ and F (2, 73) = 0.39, $p = .68$, respectively. We also did not find an effect of initial treatment focus on the proportion of the sample completely abstinent for the first 12 weeks for either ICBT or TSF groups, χ^2 (2, 94) = .81, $p = .67$ and χ^2 (2, 81) = 3.21, $p = .20$, respectively or the second 12 weeks (24 week assessment), χ^2 (2, 80) = 1.24, $p = .54$ and χ^2 (2, 76) = .66, $p = .72$, respectively. Descriptive statistics are presented in Table 2 for ICBT and TSF groups.

Depression

The HAM-D assessment was completed for 160 participants at 12 weeks and 134 participants at 24 weeks. The effect of initial treatment focus on depression outcomes at 12 weeks was also not significant for either the ICBT or TSF group, F (2, 82) = 2.12, $p = .13$ and F (2, 72) = .75, $p = .48$, respectively. Similarly, significant differences were not detected at 24 weeks in ICBT or TSF, F (2, 67) = .59, p = .56, and F (2, 61) = 1.10, p = .34). Secondly, we analyzed effect of initial treatment outcome on depression scores controlling for baseline depression levels, and again found no differences (ICBT at 12 weeks: F (2, 80) = 2.66, p = .08; TSF at 12 weeks: F (2, 70) = 1.92, p = .15; ICBT at 24 weeks: F (2, 65) = .68, p = .51; TSF at 24 weeks: F (2, 59) = 2.67, p = .08). Means and standard deviations are presented in Table 2. Cut-off scores on the HAM-D indicative of depressive disorders vary, but scores higher than 20 are generally considered clinical levels of depression symptoms. Although the HAM-D scores of participants in both treatment groups decreased from intake depression levels (Brown et al., 2006), the means in Table 2 suggest that participants continued to experience high levels of depression symptoms.

Treatment Retention

We examined treatment retention in three ways: number of sessions attended in patient's entry module (range 1-8), total number of sessions attended in all three modules (i.e., first 12 weeks of treatment, range 1-24), and total number of sessions attended in full 24 weeks of treatment (three modules plus 12 weeks of follow up treatment, range 1-36). Initial treatment focus (i.e., entry module) did not significantly affect the number of sessions patients attended in their entry module for ICBT or TSF, F (2, 104) = 1.51, $p = .23$ and F (2, 91) = .68, $p = .48$, respectively. Similarly, we did not find an effect of initial treatment focus on total number of sessions attended in first 12 weeks of treatment (i.e., all three modules) for ICBT or TSF, F (2, 104) = 2.27, $p = .11$ and F (2, 91) = 1.43, $p = .24$, respectively. Finally, initial treatment focus had an effect on total number of sessions attended in full 24 weeks of treatment in ICBT, F (2, 104) = 3.21, $p = .04$. Post-hoc analyses revealed that patients who started in the Interpersonal Module attended more sessions that patients who started in the Thoughts Module, $p = .04$. However, we did not find a significant effect of initial treatment focus on total number of sessions attended in 24 weeks of treatment for the TSF condition, F (2, 91) = 1.29, $p = .28$. See Table 3 for descriptive statistics and a summary of these findings.

4. Discussion

This study was designed to explore the effect of initial treatment focus on outcome for two treatment protocols developed for patients with comorbid depression and substance use disorders. Both interventions had content-distinct rotating modules: Integrative Cognitive Behavioral Therapy (ICBT) and Twelve Step Facilitation Therapy (TSF). We found that the initial treatment focus was not associated with substance use and depression outcomes in either intervention. These results provide support for this clinically useful rotating, modular entry format for treatment groups given that participants starting at different points had similar outcomes.

These negative findings, although not conclusive given some of the limitations discussed below, suggest that initial treatment focus is not a significant component of treatment outcome. The importance of initial treatment experience, particularly generic therapeutic effects, as a factor in whether patients do well or remain in treatment has been documented (e.g., Zhang, Friedmann, & Gerstein, 2003). Our results demonstrate that this initial experience is likely not contingent on the content of treatment and support the use of a multiple entry points without sacrificing the effectiveness of a treatment program. It is important to note, however, that depression symptoms may have responded to the psychopharmacological treatment for depression provided to all participants.

Results from the ICBT and TSF groups are interesting independently, as well. In the past, research has focused on identifying critical components of CBT. For example, Jacobson and colleagues (1996) found that depressed individuals had similar outcomes regardless of whether they underwent Behavior Activation only, Automatic Thoughts only, or a full CBT treatment package (including both Behavioral Activation and Automatic Thoughts). In the present study, we found that, for the most part, the order of our ICBT modules did not affect treatment outcomes for comorbidly depressed and substance dependent individuals. The one exception is that we found that individuals in the ICBT group who began in the Interpersonal module attended more sessions than individuals who began in the Thoughts modules (24 compared to 18) over the full 24-weeks of treatment. This finding was the only significant finding that emerged from our analyses and is interesting because the difference emerged when considering attendance in the full 24 weeks and not when we examined the first 12 weeks. It is possible that the Thoughts module was more difficult for patients and led them to attend less sessions during treatment and that our sample size led to negative findings for the first 12 weeks of treatment. Alternatively, early training in interpersonal skills may facilitate engagement in the group process and increase the participant's ability tolerate the group. These hypotheses have not been explicitly examined by other researchers. However, Bellack and colleagues (1982) have shown that a social skills training intervention for depressed individuals (similar to our Interpersonal module examined here) led to less dropout than the other treatments they were investigating (medication and a more general psychotherapy intervention). Understanding the association between an interpersonal intervention and increased attendance needs to be explored in future studies.

A component focus is rarely applied to Twelve Step interventions. That individuals need to start with Step 1 and continue stepwise through the Twelve Step program is presumed. Our results support benefits from Twelve Step programs even when order does not match the same ascribed 12-Step sequence (two-thirds of the time, in our case). Although formal treatment programs and “working the steps” presume orderly progression, individuals are exposed to a variety of initial topics when attending community Alcoholics Anonymous/ Narcotics Anonymous meetings.

Our findings are important for treatment delivery systems that often struggle with ways to optimally serve their patients. The modular group entry paradigm significantly reduces waitlist delays while maintaining the effectiveness of the interventions. This is also relevant to clinical researchers who are often challenged with balancing external and internal validity. Our group treatment more closely resembles real-world settings, making it more readily disseminable, as well as optimizing management of our research protocol.

Limitations and Future Directions

Our study is not without limitations. Although we were able to examine the effect of initial treatment focus on outcome, modules were not presented in random order. That is, in order to facilitate entry into the treatment program, patients entered at the beginning of whatever module was next, with the modules always presented in the same order to prevent patients from repeating and/or missing a module. Consequently, there were only three possible orders of modules and what we present as “initial treatment focus” is confounded by the module that patients were last exposed to immediately prior to completion of the assessment. Future studies examining a random order of modules may provide added insight. We also examined only outcomes in the relative short-term (i.e., 24 weeks). It would be important for future studies to examine longer outcomes. Additionally, we have substance use and depression outcomes available only for patients who attended at least eight treatment sessions. Finally, while we considered our sample size adequate to conduct the analyses reported here, a larger sample size should be used to replicate negative findings. We also have some limitations to generalizability. Patients were predominantly male, older veterans. The setting, although moving more towards an effectiveness model of research, still has some discrepancies between a standard treatment delivery system. Most therapists had received prior training in cognitive behavior therapy and were familiar with addictions and depression research. All received weekly supervision from an expert in the treatment. These two factors may explain part of the similarities across modules.

In summary, our findings suggest that groups with rolling, modular admissions such as are described here (i.e., starting with one component of treatment) result in similar effects across entry points. The pragmatic and theoretical implications of these findings are important for both clinicians and clinical researchers.

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Table 1
Demographics and Patient Characteristics by Treatment Type

	Treatment Type		
	TSF (n = 92)	**ICBT (n = 105)**	**Total (N = 197)**
Gender (% male)	90%	92%	91%
Mean Age (SD)	48 (8)	49 (7)	49 (8)
Years Education (SD)	13 (2)	13 (2)	13 (2)
Marital Status			
Married	17%	9%	13%
Never married	21%	29%	25%
Divorced, separated, or widowed	62%	63%	62%
Ethnicity			
Caucasian	70%	74%	72%
African-American	15%	14%	15%
Hispanic	10%	9%	9%
Other	5%	3%	4%
Lifetime Substance Disorders			
Alcohol Dependence	90%	94%	92%
Cannabis Dependence	30%	32%	31%
Stimulant Dependence	58%	57%	57%
Other Drug Dependence	19%	24%	22%

Table 2

Initial Treatment Focus (i.e., Entry Module) and Outcomes for ICBT and TSF groups

			Entry Module			
			Thoughts	**Activities**	**Interpersonal**	
		Weeks post baseline	***M (SD)***	***M (SD)***	***M (SD)***	***p***
ICBT	% Days Abstinent	12	89 (19)	87 (19)	94 (11)	.22
		24	86 (25)	82 (32)	89 (21)	.63
	% of Sample Abstinent	12	52	41	48	.67
		24	61	46	50	.54
	Depression (HAM-D)	12	22.4 (13.1)	28.0 (14.5)	28.7 (10.5)	.13
		24	22.0 (11.8)	26.2 (14.5)	24.4 (12.1)	.56
			Entry Module			
			Steps 1-3	Core AA/NA Topics	Steps 4-5	
		Weeks post baseline	*M (SD)*	*M (SD)*	*M (SD)*	*p*
TSF	% Days Abstinent	12	90 (21)	93 (18)	94 (18)	.71
		24	90 (21)	91 (14)	86 (24)	.68
	% of Sample Abstinent	12	50	65	76	.14
		24	55	57	45	.72
	Depression (HAM-D)	12	22.3 (11.5)	24.6 (12.9)	26.7 (14.3)	.48
		24	17.7 (9.5)	17.1 (8.6)	21.7 (12.5)	.34

Table 3

Attendance as a Function of Initial Treatment Focus (i.e., Entry Module) for ICBT and TSF Groups

		Entry Module			
		Thoughts (n=37)	**Activities (n=34)**	**Interpersonal (n=34)**	
		M (SD)	***M (SD)***	***M (SD)***	***p***
ICBT	# of Sessions Attended in Respective Entry Module	6.0 (2.0)	6.8 (2.0)	6.2 (2.1)	.23
	# of Sessions Attended in First 12 Weeks of Treatment	14.0 (6.6)	16.4 (6.2)	16.8 (5.6)	.11
	# of Sessions Attended in Full 24 Weeks of Treatment	18.3 (9.1)	21.5 (8.0)	23.5 9.3	.04*
		Entry Module			
		Steps 1-3 (n=37)	Core AA/NA Topics (n=31)	Steps 4 & 5 (n=24)	
		M (SD)	*M (SD)*	*M (SD)*	*p*
TSF	# of Sessions Attended in Respective Entry Module	6.1 (2.7)	6.4 (2.9)	5.5 (2.5)	.51
	# of Sessions Attended in First 12 Weeks of Treatment	15.2 (6.5)	16.4 (7.3)	13.1 (7.5)	.24
	# of Sessions Attended in Full 24 Weeks of Treatment	21.0 (9.7)	22.3 (9.8)	17.7 (10.2)	.22

* Post-hoc analyses revealed that individuals who started in the Interpersonal module attended more sessions that individuals starting in the Thoughts module, $p = .04$.