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Spiritual Direction in Addiction Treatment: Two Clinical Trials

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Abstract

Spirituality has long been regarded as an important component of recovery from addiction. This article reports the findings of two controlled trials of spiritual direction as an adjunct in addiction treatment. In Study 1, 60 participants were randomly assigned to receive or not receive a 12-session manual-guided spiritual guidance (SG) intervention during and after inpatient treatment, in addition to treatment as usual (TAU). In Study 2, two cohorts of 40 each received TAU without or with SG during their inpatient stay. In both trials, contrary to prediction, SG had no effect on spiritual practices or substance use outcomes at any follow-up point. At the first follow-up in Study 1 only, those randomly assigned to spiritual direction unexpectedly showed significantly less improvement on depression and anxiety, relative to TAU controls. Limitations and implications for treatment are discussed.

Introduction

Owing in part to the international influence of Alcoholics Anonymous (AA), spirituality has long been regarded as important in recovery from addictions (Kurtz, 1987). The 12 steps of AA specifically emphasize personal searching, prayer and meditation, and conscious contact with God (Alcoholics Anonymous, 1976).

Some spiritual variables do change significantly over the course of recovery (Brown, 1990; Robinson, Cranford, Webb & Brower, 2007), although a causal relationship between these changes and abstinence is unclear (Connors, Tonigan & Miller, 2001; Tonigan, Miller & Connors, 2001). Involvement in AA rather consistently shows a modest positive relationship to post-treatment abstinence (Emrick, Tonigan, Montgomery & Little, 1993), and in Project MATCH the spiritually-focused Twelve Step Facilitation therapy (Nowinski, Baker & Carroll, 1992) yielded total abstinence rates across follow-up that were 10 percentage points higher than those for Cognitive Behavior Therapy or Motivational Enhancement Therapy (Project MATCH Research Group, 1997, 1998). Furthermore, religious involvement is inversely related to the prevalence of substance use, abuse and dependence, both concomitantly and prospectively (Gorsuch & Butler, 1976; Gorsuch, 1995; Miller, 1998). People entering addiction treatment sometimes show low levels of spiritual/religious involvement relative to the general population (Hilton, 1991; Larson & Wilson, 1980; Walters, 1957). Studies have

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also indicated an inverse relationship between substance use and the practice of meditation, both in non-clinical populations and in those undergoing addiction treatment (Aron & Aron, 1980; Marlatt & Marques, 1977). All of these findings are consistent with a relationship between spirituality and recovery.

Although attendance of 12-step meetings during and after treatment is often recommended in the United States, programs typically do little else to foster spiritual development during the acute treatment phase. There are professional disciplines devoted to facilitating human spiritual development, which could be integrated into treatment. Addiction is among the concerns addressed in pastoral care (Miller & Jackson, 1996), prompting the publication of a *Journal of Ministry in Addiction and Recovery*. There is also a longstanding tradition of spiritual direction, for which there are professional training and certification programs. Spiritual directors are not necessarily religious clergy, and as with psychotherapy, a wide array of counseling styles is evident, varying in their directiveness and linkage to specific religious traditions (Guenther, 1992; Merton, 1986).

To our knowledge, there has been no systematic evaluation of the impact of spiritual direction or pastoral care on addiction treatment outcomes. We undertook two clinical trials of manual-guided spiritual direction as an adjunct to inpatient treatment of substance use disorders. Our general hypothesis was that patients given spiritual direction in addition to normal treatment would show increased spiritual practices and experiences during this early phase of recovery, which in turn would lead to significantly greater reduction in substance abuse. Selected psychological variables were also measured as a possible mediation route for any observed intervention effects.

Study 1 Methods

Participants

Both trials were conducted in collaboration with Turquoise Lodge, a public hospital for the treatment of severe substance dependence. Average inpatient stay at the time of this study was approximately 25 days, including polydrug detoxification. Treatment as usual (TAU) consisted primarily of behavioral counseling and education groups on a variety of topics.

As patients completed acute detoxification and were judged by medical staff to be sufficiently stabilized, a counselor described the study and asked whether the patient would like to receive additional information. Only those who responded in the affirmative were identified to study staff, who then provided a detailed description of study conditions and, if appropriate, completed consent procedures. Candidates were informed that participants would be randomly assigned to be offered (or not) up to 12 individual sessions with a professional spiritual director. No information was collected regarding the number and characteristics of non-consenting patients who declined or were not offered information about the study by treatment center staff.

Eligibility criteria for study participation were intentionally broad. Participants were detoxified adults (18 or older) who met DSM-IV criteria for substance dependence with alcohol, cocaine, opiates, and/or stimulants, and had used at least one of these drugs during the prior 30 days. Because of concerns about potential impact of maintenance drugs on spiritual experiences (e.g., Goldstein, 1980), we excluded people who intended to begin or continue opioid substitution therapy with methadone or buprenorphine. Finally, we included people who resided within 60 miles of Albuquerque, and planned to remain in the area for at least one year. A total of 64 people were enrolled, including four pilot study participants.

Assessment Procedures

All study intake interviews were conducted at Turquoise Lodge, and follow-up interviews at 4, 8, and 12 months after baseline assessment were conducted in person whenever possible at the University of New Mexico Center on Alcoholism, Substance Abuse and Addictions (CASAA) by staff unaware of treatment group assignment. The Form 90-D structured interview was used to construct a continuous timeline of substance use from 90 days prior to last use through 12-month follow-up (Miller, 1996). Psychometric evaluations have supported the reliability and validity of self-report obtained via the Form 90 (Tonigan, Miller & Brown, 1994; Westerberg, Tonigan & Miller, 1998).

Because effects on patient spirituality were expected to mediate impact on substance use outcomes, we administered the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer Institute, 1999), with particular interest in its Daily Spiritual Experience (Underwood & Teresi, 2002) and Meaning in Life subscales that have been found to predict abstinence (Robinson et al., 2007), as well as its Private Religious Practices scale. Measures of potential psychological mediators included depression (Beck Depression Inventory; BDI; Beck, Steer & Brown, 1996), anxiety (State-Trait Anxiety Inventory; STAI; Spielberger, 1983), and self-esteem (Self Esteem Inventory; SEI; Coopersmith, 1981).

Treatment

Participants assigned to the experimental group received the same TAU as the control group, and in addition were offered up to 12 sessions of spiritual guidance (SG), a manual-guided form of spiritual direction designed for this population (Miller, 2004). SG was delivered by three highly experienced, certified professional spiritual directors. Anticipating potential resistance to exploring spirituality, we incorporated the clinical style of motivational interviewing (Miller & Rollnick, 2002) throughout SG.

SG was designed in collaboration with the professional spiritual directors, to resemble and yet specify their normal practice. Following an initial exploration session, patients were offered a menu of 13 spiritual disciplines from which they could choose particular spiritual exploration methods to experience and discuss in sessions and practice between sessions. Twelve of these were based on spiritual disciplines described by Richard Foster, whose book on the subject was provided to all SG patients (Foster, 1998). Described by title, they are acceptance, celebration, fasting, gratitude, guidance, meditation, prayer, reconciliation, reflection, service to others, solitude, and worship. The disciplines were chosen as familiar within the Judeo-Christian tradition most likely to be encountered among participants, and have historic roots of practice for hundreds or thousands of years. At the behest of the spiritual directors, we added “self-care” as an additional practice important in spiritual development.

The three directors proved to be already quite proficient in client-centered counseling skills that form the foundation of motivational interviewing, so that training by the first author (totaling 8 hours) could focus on instruction and practice of more advanced aspects of this approach to be integrated with their spiritual direction. None of the three had previous experience in working with substance dependent people. SG sessions included instruction of patients in basics of the chosen discipline(s), in-session practice, and negotiation of additional practice between sessions. Discussion of the patient's experience with such practice was an early priority in each subsequent session.

To establish a working relationship, the spiritual director met with each patient 1–3 times (median of 2) during the inpatient stay. They then continued on an outpatient basis for up to 12 total sessions, concluding prior to the 4-month follow-up which served as the post-treatment assessment. All sessions were audiotape recorded and monitored by the third author for fidelity,

using structured rating scales adapted from the Motivational Interviewing Skill Code (Moyers, Martin, Catley, Harris & Ahluwalia, 2003). Counselors also completed a session record form at each session indicating which disciplines had been explored.

Study 1 Results

Sample

As planned, a total of 60 patients (24 men, 36 women) were consented and randomized to form the intent-to-treat sample. Their mean age was 38.7 (± 9.8) years, and they were predominantly Hispanic (50%), White non-Hispanic (35%) and Native American (12%). Their baseline scores reflected clinically significant levels of depression, anxiety, and low self-esteem (see Table 1). The two treatment groups did not differ significantly at baseline on age, gender, ethnicity, on substance use, or any of 19 psychological and spiritual variables (all $p > .30$).

Hypothesis Testing

The primary research hypotheses regarded change over time on dependent measures pertaining to spirituality and substance use. Two co-primary substance use outcome variables were illicit drug use (percent days abstinent from all illicit drugs except marijuana), and all drug use (percent days abstinent from all illicit drugs including marijuana and from alcohol). Change over time was examined via split-plot analyses of variance, using two time points (baseline and 4-month follow-up) as a within-subjects factor and treatment group assignment as a between-subjects factor. This approach was chosen because it permits evaluation of a main effect of time (as would be expected in a study where both groups receive treatment), in addition to the effect of treatment group assignment. In this analytic approach, a differential effect of the experimental treatment would appear as a time-by-group interaction. Intent-to-treat analyses were conducted, including all cases regardless of their exposure to treatment. Secondary analyses examined effects, relative to the control group, for patients who received reasonable exposure to SG, defined as three or more sessions (of a possible 12) completed.

Treatment

Of the 30 patients assigned to SG, three attended no sessions, five attended only one, and five attended two sessions. The remaining 17 (57%) patients were considered “treated” for purposes of subgroup analyses. The mean number of sessions completed was 4.8 sessions (7.5 for those considered “treated”).

Discussion of the 13 possible spiritual disciplines was broad. Eight of them were discussed in at least 21 of the 23 cases in which any spiritual discipline was explored. Less frequent consideration was given to the use of solitude (19 cases), worship (17), service to others (6), celebration (2), and fasting (0).

On MISC codes (34), average fidelity scores (on 7-point rating scales) were $5.44 \pm .57$ for Empathy, and $4.87 \pm .54$ for MI Spirit. There were no significant differences among the three spiritual directors in ratings of adherence to protocol standards or in session length (Mean = 57 minutes), and no specific intervention was required to maintain fidelity during the trial. The mean number of sessions completed by the counselors, however, were 2.8, 4.6 and 4.9 a statistically significant difference, $F(2, 145) = 3.89$, $p < .05$. Tukey adjusted post-hoc testing revealed that counselor 1 delivered significantly fewer sessions than either counselor 2 or 3.

Substance Use Outcomes

Of all possible follow-up interviews, 86% were completed: 54 of 59 (92%) at 4 months, 49 of 59 (83%) at 8 months, and 47 of 57 (82%) at 12 months. Three patients died during the study, one shortly after intake, and two between 8 and 12-month follow-up. At no point did follow-

up rates differ significantly between treatment groups. Table 1 reports frequency of drug use at baseline and at each follow-up. There were no significant differences between treatment groups (SG vs. TAU) on the co-primary dependent measures at baseline (all $p > .05$). As shown in Table 1, there were substantial reductions in the frequency of alcohol and other drug use from baseline to 4-month follow-up. On the percent days abstinent from illicit drugs, there was a large increase over time [$F(1,52) = 31.04, p < .001$], and the group effect showed a trend favoring higher abstinence in the TAU group at both baseline and follow-up [$F(1,52) = 3.04, p < .08$]. The group by time interaction effect, where a differential effect of treatment would be observed, was not significant ($p > .20$).

Findings were similar for abstinence from all drugs including alcohol. The combined groups showed a large gain in percent days abstinent [$F(1,52) = 16.04, p < .001$], with both groups increasing by almost 50 percentage points. Neither the group nor interaction effect was significant, ($p > .20$).

Spirituality Outcomes

The SG intervention was hypothesized to influence substance abuse outcomes by increasing spiritual functioning on three measures: daily spiritual experiences, meaning in life, and private religious practices. Was the SG intervention successful in this regard? Here there were no significant effects of time, group, or their interaction (all $p > .40$, see Table 1), and only a time by group interaction trend for daily spiritual experiences; $F(1, 37) = 3.00, p = .091$. In essence, neither SG nor TAU patients showed significant change on these measures.

Psychological Outcomes

On psychological measures an unexpected and significant separation of groups occurred at 4-month follow-up, such that the TAU group showed substantial improvement in anxiety and depression, whereas the SG group did not. As a result, the SG group evidenced significantly higher rates of depression [$t(37) = -3.93, p < .001$] and state anxiety [$t(37) = -3.95, p < .001$], relative to TAU. These differences in anxiety and depression, not present at baseline, maintained in direction but were no longer significant at 8 and 12 months. Self-esteem showed significant improvement across 12 months in both groups, $F(3,22) = 21.40, p < .001$, with no between-group differences at any follow-up point.

Analyses of the Treated Subsample

Was the failure to find an effect of SG due to lack of exposure to the treatment? Here comparisons were made between patients who attended at least three sessions of SG versus the TAU group, recognizing that this is no longer a random group contrast. In no analysis did findings differ from those reported above. The treated group showed a slight increase in anxiety and depression, and reductions in alcohol and other drug use that were not significantly different from those in the TAU group.

Study 2 Methods

In an attempt to increase exposure of the treatment group to the SG intervention by delivering it during the inpatient stay, a second clinical trial was conducted at the same treatment facility (Forcehimes, 2007). In this study, regular clinical staff of the facility were trained to deliver manual-guided SG. Because inpatients have considerable contact with each other during their stay, randomization was deemed infeasible due to potential contamination of treatment groups. We therefore adopted a cohort design, and increased the sample size to 80 to further enhance power to detect differences. All participants again consented to be in a trial in which they would receive TAU, and might or might not also receive SG as additional treatment. The first 40 who enrolled received TAU alone. After enrollment of 40, we allowed a one-month wash-out period

for the last of these participants to be discharged, and trained program staff to deliver SG. The first two authors provided a total of 24 hours of training to nine program staff who agreed to deliver SG during participants' inpatient stay. In Study 2, up to 12 sessions could be provided prior to discharge, and two counselors were assigned for each participant, usually one from daytime staff and one from night staff, to facilitate the completion of sessions. Two follow-up interviews were conducted, at 3 and 6 months after intake. Otherwise the screening, recruitment, consent, treatment protocol, assessment procedures, and hypotheses directly replicated those for Study 1.

Counselors and Quality Assurance Procedures

Of the nine staff trained, seven participated in delivering SG. Six of the seven providers were women who held a master's degree in psychology, social work, or a related discipline. The seventh was male with a bachelor's degree in psychology. All seven completed the full 24 hours of training. During the SG treatment phase, the second author met monthly with the seven providers to review and clarify components of the protocol.

All sessions were again audiotaped, and the first session with every patient was coded using the Motivational Interviewing Treatment Integrity coding system (Moyers, Martin, Manuel, Hendrickson & Miller, 2005). There were no significant differences in clinician ratings of adherence to protocol standards or in session length (Mean = 32 minutes). An additional 10% of all subsequent sessions were selected at random to be monitored for adherence to the SG protocol, in order to prevent drift.

Study 2 Results

Sample

The full complement of 80 patients (42 men, 38 women) was recruited to form the intent-to-treat sample. Their mean age was 38.1 (± 11.2) years, and by self-identified ethnicity they were Hispanic (56%), White non-Hispanic (28%), Native American (6%), African American (3%) and other (7%). These baseline scores again reflected significant levels of depression, anxiety, and low self-esteem (see Table 1). The two treatment groups did not differ significantly at baseline on age, gender, ethnicity, or on substance use or psychological variables (all $p > .30$), although mean family income was significantly lower in the SG cohort (\$11,765 + 15,354) than in the TAU cohort (\$24,608 + 25,716), $p < .001$.

Treatment

The length of inpatient stay for those assigned to SG was 24.3 days (± 6.88), and not significantly different from that for the TAU group (26.8 ± 7.93). This allowed, on average, 14 inpatient days after detoxification and consent in which to complete SG sessions. Of the 40 patients assigned to SG, three attended no sessions, seven attended only one session, and seven attended only two sessions. The remaining 24 (60%) patients were considered "treated" for purposes of subgroup analyses, and on average they completed 3.9 sessions of a possible 12. The mean number of sessions completed by the entire Study 2 SG cohort (2.9) was disappointingly lower than that for Study 1 (4.8).

Of the 13 spiritual disciplines offered in this intervention, participants discussed nine in at least 20 of the 27 cases in which any spiritual discipline was explored. Most frequent consideration was given to the disciplines of prayer, meditation, guidance and worship. Less frequent consideration was reported for the disciplines of reconciliation (12), solitude (10), gratitude (10), celebration (3), and fasting (1). Of the 115 SG sessions delivered, protocol adherence coding was completed for 46 (40%). On MISC codes (Moyers et al., 1003), average fidelity

scores were $5.02 \pm .99$ for Empathy, and 4.78 ± 1.40 for MI Spirit, quite similar to those for Study 1.

Follow-up Completion

Follow-up interviews at 3 months were completed with 65 of the 80 participants (81%), of which 56 were conducted in person and seven by telephone. The follow-up completion rates in TAU (85%) and SG groups (78%) did not differ significantly. At the 6 month follow-up period, interviews were completed with 62 of the 80 participants (78%), of which 44 were conducted in person and 18 by telephone. The completion rate in TAU (80%) and SG groups (75%) again did not differ significantly.

Substance Use Outcomes

The frequency of substance use before and after treatment is reported in Table 1. As in Study 1, both groups showed significant ($p < .001$) decreases in substance use over time, with no significant differences between groups on the co-primary dependent measures at baseline (all $p > .05$). Significance of group differences was again analyzed via a group by time repeated measures analysis of variance. No effects of the experimental treatment (SG) emerged in these ANOVAs as an interaction of group by time for all illicit drugs and alcohol at 3-months, $F(1,63) = .835$; $p = .364$, or 6-months, $F(1,58) = 1.29$; $p = .260$, and findings were similar for abstinence from illicit drugs other than marijuana at both follow up points.

Chi-square tests were conducted for total abstinence rates during follow-up by cohort, with direction of differences consistently favoring the SG group. At 3 months, although the groups were separated by 15 to 19 percentage points (e.g., 59% in TAU and 74% in SG for alcohol; 71% in TAU and 90% in SG for cocaine, and 24% in TAU and 42% in SG for all drugs except tobacco) none of these were statistically significant (all $p > .05$). These patterns of total abstinence rates were generally maintained at 6-months (e.g., 59% in TAU and 72% in SG for alcohol; 74% in TAU and 89% in SG for cocaine, and 27% in TAU and 48% in SG for all drugs except tobacco), and remained non-significant (all $p > .05$).

Spiritual Outcomes

As in Study 1, it was hypothesized that the SG intervention would influence substance use outcomes by increasing daily spiritual experiences, meaning in life, and private religious practices. The group by time interaction indicated that SG participants increased somewhat more from baseline to 3-month follow-up on Daily Spiritual Experiences $F(1,53) = 4.146$; $p = .047$, relative to the TAU cohort. This higher endorsement of Daily Spiritual Experiences remained at 6-month follow up $F(1,47) = 4.924$; $p = .04$. Daily spiritual experiences did not, however, mediate a relationship between SG and substance use outcomes at 3 months ($F(1,30) = .025$; $p = .875$) or 6 months ($F(1,29) = .094$; $p = .644$). No significant changes over time or between groups were observed for meaning in life or private religious practices.

Psychological Outcomes

Overall, scores on psychological variables in Study 2 were similar between groups and time periods (See Table 1), except for depression scores in the SG group at the 6-month follow up period. At 3 months, depression scores remained stable at a level of moderate depression, self-esteem remained low, and state anxiety remained high, with no significant mean differences between cohorts when controlling for baseline scores ($p > .05$). At 6 months, depression scores in the SG group were significantly lower ($p < .001$) relative to the TAU group, though anxiety remained high and self esteem remained low, with no significant mean differences between cohorts when controlling for baseline scores ($p < .05$).

Analyses of the Treated Subsample

Post-hoc analyses were conducted between patients who attended at least three sessions of SG (N=24) versus the TAU group. The analyses of this subset of the treated group compared to the TAU group did not show any changes in psychological, spiritual or substance use variables that differed from the findings reported above at either follow up period.

Discussion

In the absence of any prior clinical trials, our prediction of improved outcomes with spiritual direction was based on the widely-expressed view that spirituality is a key component of recovery from addiction. Particularly within the program of AA, continued practice of spiritual disciplines such as prayer and meditation is recommended and regarded as important to maintain conscious contact with God as well as sobriety. We therefore designed and tested an intervention specifically intended to facilitate recovery, grounded in centuries-old spiritual disciplines.

Contrary to prediction, we found no significant impact of the spiritual intervention on substance use outcomes. Substantial and parallel increases in abstinence were found for patients receiving only inpatient TAU and those given TAU plus SG. On average, both groups showed an increase of about 50 percentage points in days abstinent from illicit drugs and alcohol.

The intervention may not have been inert, however, in that during follow-up in Study 1, those offered SG unexpectedly showed significantly less reduction in anxiety and depression. That is, SG if anything sustained anxiety and depression at follow-up, relative to TAU in Study 1. This was not reflected in differential substance use outcomes, but was the largest treatment by time interaction finding. It is certainly not unprecedented for spiritual exploration to evoke anxiety, depression, and a reconsideration of self-esteem. Periods of strong distress have been described as a “dark night of the soul” phase in spiritual formation (Pargament, Murray-Swank, Magyar & Ano, 2005). This between-group mood difference was not observed in Study 2, where SG was delivered by program staff rather than professional spiritual directors.

In understanding the absence of an effect, one possibility to be entertained is the null hypothesis: that there is no effect to be detected. The relevance of spirituality in addiction treatment outcome has been questioned (Milam & Ketcham, 1984), and has been based primarily on anecdotal and correlational evidence. A randomized trial of intercessory prayer for those in addiction treatment similarly showed no effect on outcomes, and patients who reported knowing someone who had been praying for them showed significantly more post-treatment substance use after controlling for baseline levels (Walker, Tonigan, Miller, Comer & Kahlich, 1997). One possibility, then, is that targeting spiritual mechanisms is ineffective in altering substance abuse. A caveat here is the very limited range of spiritual interventions that have been tested to date.

It is important to note that the SG intervention tested in this trial failed to increase spiritual practice or experience, and thus the first step of mediation was not met (Baron & Kenny, 1986). We anticipated that SG would enhance spiritual experience and increase personal spiritual practices during follow-up, which in turn would impact substance use outcomes. A more persuasive test would be one in which the intervention does impact the hypothesized mediator of change. Nevertheless, it is clinically informative that we experienced such difficulty in completing sessions with patients who had consented to the treatment, and that SG failed to alter even the spiritual variables.

Why might the intervention have failed to yield any benefit? One possibility is that the intensity was too low. . Considerable effort and persistence were required even to achieve the few

sessions completed. We made regular reminder calls, and provided bus tokens and taxi vouchers to overcome transportation obstacles. Nevertheless, although up to 12 sessions were offered, only 3–5 were completed on average, with only 59 percent of patients receiving three or more sessions.

Another possibility is that the intervention was offered too early in the recovery process. Patients entered this trial right out of detoxification, and most were dealing with a plethora of life problems and crises during and after treatment. Spiritual growth is at the summit of Maslow's (1943, 1970) hierarchy of needs, and these patients were facing much more urgent problems that are lower on the hierarchy. It is possible that the optimal time for fostering spiritual growth is not early, but later in recovery. Within the 12 steps of AA, the daily practice of prayer and meditation is found at step 11. In a multisite clinical trial (Project MATCH Research Group, 1993), measures of spirituality did not mediate alcohol treatment outcomes at 1 year, even within a Twelve-Step Facilitation Therapy condition where spiritual growth was hypothesized to be an active mechanism (Connors et al., 2001; Tonigan et al., 2001). Over longer follow-up, however, spirituality at 3 years did predict sustained AA affiliation, which in turn predicted drinking outcomes at 10 years (Tonigan, 2003).

Still another possibility is that spirituality changes in systematic ways over the course of recovery, but is not particularly responsive to interventions that are intended to “push the river.” Many people recovering from substance use disorders, including members of Alcoholics Anonymous, report transformational experiences that seem to occur spontaneously rather than as the product of an intervention, and that often have substantial spiritual, even mystical features (Miller & C’de Baca, 2001; Forcehimes 2004). If spiritual formation is a developmental phenomenon that unfolds naturally over time, like cognitive or moral development, it may not be amenable to acute interventions designed to speed up the process.

There is reason for confidence in the findings of this study. Outcome variables were carefully measured by independent interviewers, fidelity of interventions was good, and 82% of all possible follow-up interviews were completed. The studies were powered to detect a medium between-group effect size that would be sufficiently large to be of clinical interest (Cohen, 1988; Miller & Manuel, in press). Null findings were replicated across two study designs, and the direction of differences was in many cases opposite to prediction. We thus found no evidence for a beneficial effect of this spiritual counseling approach during the acute phase of addiction treatment. Different and more intensive spiritual counseling might increase daily spiritual practices, spiritual experience and meaning, and thereby influence substance use outcomes. Given the magnitude of changes that occur in early recovery, however, we believe that a more promising approach is to focus on spiritual development after a period of stabilization in which other basic needs have been addressed. Within a long-term care perspective, spiritual direction may fit better in later recovery, with a goal of maintaining and broadening the initial gains of sobriety.

Finally, looking for the optimal timing of an intervention may just be a wrong way of thinking about how to facilitate spiritual formation over the course of recovery. Like the 12-step programs, world religions tend to emphasize lifelong practice and growth rather than short-term fixes. Within Alcoholics Anonymous, sobriety has long been understood not as mere abstinence, but as an emergent process of character development that involves intertwining physical, psychological and spiritual changes. Substance abuse programs, in contrast, have often focused on acute events such as 28-day inpatient or intensive outpatient treatment, the course of which is a very small window within a lifetime (Vaillant, 1995). Spiritual development is characteristically a lifelong process. In this regard, it may have been naive to expect enduring effects from such brief intervention, an error mirroring the broader model of

curing a chronic condition with an acute treatment episode (McLellan, McKay, Forman, Cacciola & Kemp, in press).

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Table 1
Dependent Measures Before and After Treatment

	Pre-Treatment N Mean (SD)	3–4 Months ¹ N Mean (SD)	6–8 Months ² N Mean (SD)	12 Months N Mean (SD)
PDA ³ Illicit Drugs				
Study 1 TAU ⁴	30 55.1 (44.7)	27 81.6 (31.8)	23 72.5 (38.5)	23 80.2 (33.5)
Study 1 SG ⁵	30 45.2 (45.7)	27 67.8 (36.2)	26 61.6 (37.8)	21 67.1 (38.7)
Study 2 TAU	40 46.0 (42.2)	34 68.4 (34.7)	30 63.0 (42.2)	--
Study 2 SG	40 42.1 (37.9)	31 74.3 (37.0)	24 63.6 (42.1)	--
PDA All Drugs				
Study 1 TAU	30 19.8 (26.1)	27 71.1 (5.8)	23 64.6 (39.8)	23 60.1 (43.3)
Study 1 SG	30 11.1 (20.2)	27 56.7 (37.1)	26 40.7 (34.7)	21 50.4 (42.8)
Study 2 TAU	40 17.0 (25.0)	34 63.9 (34.1)	30 53.1 (42.4)	--
Study 2 SG	40 18.2 (20.5)	31 68.2 (36.5)	24 46.9 (41.4)	--
Depression (BDI)				
Study 1 TAU	30 20.1 (13.4)	26 16.2 (14.0)	20 16.0 (12.5)	21 14.0 (14.7)
Study 1 SG	30 23.1 (12.4)	18 24.4 (11.8)	20 20.7 (12.0)	20 20.2 (15.2)
Study 2 TAU	40 21.0 (11.8)	27 20.6 (15.3)	24 21.6 (18.0)	--
Study 2 SG	40 19.4 (9.7)	28 19.3 (21.6)	24 12.95 (11.2)	--
Trait Anxiety (STAI)				
Study 1 TAU	29 49.0 (13.0)	25 44.2 (13.5)	19 44.2 (12.7)	20 40.9 (14.6)
Study 1 SG	30 51.0 (13.6)	18 50.3 (10.9)	20 49.0 (11.1)	20 48.5 (13.2)
Study 2 TAU	40 51.1 (23.1)	27 50.5 (15.0)	24 45.8 (5.3)	--
Study 2 SG	40 49.0 (10.7)	27 45.1 (12.4)	24 44.1 (6.84)	--
State Anxiety (STAI)				
Study 1 TAU	29 46.1 (15.9)	25 38.4 (13.6)	19 43.6 (14.6)	20 37.0 (14.1)
Study 1 SG	30 46.5 (15.6)	18 46.9 (15.1)	20 46.1 (13.7)	20 44.7 (13.6)
Study 2 TAU	40 51.1 (13.3)	27 50.8 (15.0)	23 44.9 (6.5)	--
Study 2 SG	40 45.9 (12.2)	26 43.0 (13.2)	25 44.4 (7.2)	--
Self-Esteem (SEI)				
Study 1 TAU	30 54.8 (22.8)	26 53.84 (22.85)	20 27.00 (32.36)	20 13.20 (19.21)
Study 1 SG	30 55.6 (24.0)	18 54.00 (21.35)	20 28.20 (24.26)	20 16.40 (13.91)
Study 2 TAU	40 47.7 (20.2)	27 48.4 (26.0)	23 45.9 (27.2)	--
Study 2 SG	40 41.7 (17.6)	28 44.5 (30.4)	24 39.8 (22.6)	--
Daily Spiritual Experiences				
Study 1 TAU	30 21.1 (7.0)	24 25.04 (7.79)	21 27.05 (7.73)	21 27.04 (7.73)
Study 1 SG	30 23.7 (7.6)	18 22.78 (6.5)	20 24.9 (8.6)	20 24.90 (8.2)
Study 2 TAU	40 18.6 (6.9)	28 18.3 (8.7)	24 16.65 (9.1)	--
Study 2 SG	38 20.3 (6.0)	28 17.6 (7.3)	25 15.05 (8.1)	--
Meaning in Life				
Study 1 TAU	30 5.9 (1.3)	24 6.1 (1.3)	20 6.0 (1.5)	21 6.1 (1.2)
Study 1 SG	30 6.0 (1.1)	18 2.8 (1.3)	20 6.0 (.9)	20 6.0 (1.2)
Study 2 TAU	40 4.1 (1.6)	28 4.1 (1.7)	24 4.5 (1.4)	--
Study 2 SG	40 3.7 (1.2)	28 3.7 (1.3)	25 3.4 (1.2)	--
Private Religious Practices ⁶				
Study 1 TAU	30 20.0 (8.5)	24 20.87 (6.5)	21 22.65 (6.9)	21 22.76 (9.0)
Study 1 SG	30 21.0 (8.3)	18 21.22 (7.1)	20 20.75 (8.2)	20 19.75 (7.6)
Study 2 TAU	40 22.1 (7.5)	28 22.4 (8.8)	24 21.0 (8.6)	--
Study 2 SG	39 21.7 (9.0)	28 22.0 (8.1)	25 21.7 (8.4)	--

¹ Follow-up 1 was at 4 months in Study 1, and at 3 months in Study 2

² Follow-up 2 was at 8 months in Study 1, and at 6 months in Study 2

³ PDA = Percent Days Abstinent

⁴ TAU = Treatment as usual

⁵ SG = Spiritual Evocation Counseling

⁶ On this measure, lower scores indicate higher rates of private religious practices