A Preliminary 6-Month Prospective Study Examining Self-reported Religious Preference, Religiosity/Spirituality, and Retention at a Jewish Residential Treatment Center for Substance-Related Disorders

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Abstract

Although there is a substantial amount of research suggesting that higher levels of religiosity/spirituality (R/S) are associated with better treatment outcomes of substance-related disorders, no studies have explored this relationship at a faith-based residential treatment center. The objective of this prospective study is to explore the relationship between R/S, self-reported religious preference, and retention at a Jewish residential treatment center for substance-related disorders. Using the Daily Spiritual Experience Scale, R/S levels were assessed for 33 subjects at baseline, 1 month, 3 months, and 6 months. Results demonstrated a significant relationship between baseline R/S level and retention at 6 months, while R/S levels were unchanged during the course of treatment. Notably, no relationship was found between self-reported religious affiliation and retention. This study demonstrates that patients' R/S level, rather than religious affiliation, is a possible predictor for better outcome at faith-based residential centers for substance-related disorders.

Introduction

The incorporation of spiritual and religious elements into the treatment of substance-related disorders is common in many therapeutic treatment settings because of their integral role in producing positive treatment outcomes.¹⁻⁴ In over 700 studies that have examined the associations among religion and spirituality, well-being, and mental health, nearly 500 of them report a significant positive association between religion and spirituality, greater well-being, and lower substance abuse, suggesting that religiosity and spirituality may be an intricate and significant aspect for the treatment of substance-related disorders.⁵ Much of this literature, however, is limited to traditional treatment centers that utilize conventional methods of intervention and little is known about the therapeutic outcomes of faith-based residential settings that incorporate religiousness and spirituality into their treatment programs. It is, therefore, challenging to generalize the current literature from traditional substance abuse residential settings to these nontraditional centers.⁶ The present study sought to fill this gap by conducting a preliminary investigation of spirituality and treatment retention at a Jewish-based residential treatment center.

Religiosity/spirituality defined

While both religiosity and spirituality contain multidimensional and often overlapping elements,⁷ several important distinctions have been made when assessing their influence on mental health status. Recently, researchers and clinicians in mental health and medical fields have conceptualized religiosity as a society-based belief system that encourages adherence to one form of religious expression and includes involvement in and acceptance of particular organizations and services.^{8, 9} Spirituality, on the other hand, refers to existential beliefs and practices aimed at cultivating a personal meaning and transcendence, with respect for a higher power.⁹⁻¹¹ Because there is still some debate about the exact meaning of these phenomena,¹² it can be argued that there is no single comprehensive definition that captures its complexity; many authors, therefore, often refer to religiosity/spirituality jointly as R/S, in an effort to be as inclusive as possible.⁹

Religiosity/spirituality, mental health, and treatment outcomes

In the field of mental health, there is substantive literature examining the impact of R/S on psychological well-being and treatment outcomes. The use of R/S practices (i.e., prayer) has shown to be effective in coping with disability, illness, and adverse life events.^{13, 14} For example, a study examining R/S preferences, beliefs, and behaviors in a sample of adults seeking treatment for anxiety and depression found that participants who thought it was important to include R/S elements into therapy reported more positive religious coping.¹⁵ Furthermore, a constellation of findings have suggested that R/S is negatively correlated with drug and alcohol abuse.³ In particular, religious commitment is consistently associated with negative drug abuse outcomes, as religious-based norms effectively discourage and reduce drug and alcohol abuse among its members.¹⁶ In another investigation of 237 substance abusers, higher levels of religiosity and spirituality were correlated with a greater optimistic life orientation, higher perceived social support, more resilience to stress, and lower levels of anxiety.² In another study of over 2,000 female twins, the reported frequency of praying and seeking spiritual comfort was inversely associated with current drinking and smoking as well as lifetime risk for alcoholism and nicotine dependence.¹⁷ These and analogous findings have been replicated elsewhere in the literature.^{1, 18-20}

Traditional versus faith-based residential treatment settings

Traditional residential centers for substance-related disorders usually incorporate conventional therapeutic methods such as contingency management, trauma-related counseling, brief intervention, anger management, motivational interviewing, cognitive

behavioral therapy, 12-step programs, and relapse prevention. According to a national survey of over 3,000 residential treatment centers for substance abuse, however, 16% utilized nontraditional therapeutic methods (i.e., the integration of religious or spiritual practices) and only 527 centers are affiliated with a religion.²¹ Given the implication that faith-based and traditional treatment interventions—while similar across multiple dimensions—show substantial differences in core elements,²² it is critical to first investigate how patients' religious identification and level of R/S impacts treatment outcomes in such settings. Doing so may improve the structure and organization of treatment programs (faith-based or traditional) in a way that will facilitate and maintain positive treatment outcomes.

Retention as a predictor of treatment outcomes

One method to assess treatment effectiveness at residential settings is to examine retention rates. Retention represents length of stay in treatment or rate of treatment completion and is one of the most reliable predictors of patient outcomes after discharge.^{23–25} Studies investigating treatment retention have found that a patient's length of time in treatment corresponds with sustained reduction in substance abuse and improvements in social functioning. In addition, a host of studies have demonstrated that higher retention rates are associated with prolonged rates of abstinence, lower chance of relapse, decreased likelihood for primary drug use and postdischarge arrest, and increased employment rates.^{23, 26, 27} Others have also indicated improved mental health, decreased risk for sedative or stimulant dependence as well as lifetime depression in patients who complete their treatment program compared to those who drop out early.²⁸ These findings suggest that it is important to promote retention in treatment settings in order to enhance posttreatment outcomes. One way to do so is to identify the possible barriers to treatment completion that are unique to a specific population or type of setting.

Since there is limited data examining factors predicting retention rates at faith-based residential treatment centers, the purpose of this study is to begin a preliminary examination of the influence of religious preference and R/S level on treatment completion. The primary objective of this prospective study is to explore whether there is a relationship between the level of R/S, including religious preference, and patient retention at a Jewish residential treatment center for substance-related disorders. The secondary objective of this study is to determine whether the patients' R/S level changed during the course of treatment.

Methods

Study setting

This study was conducted at Beit T'Shuvah, a Jewish-themed residential substance abuse treatment center in Los Angeles, CA, USA with 120 beds. This center uses an integrative approach that utilizes cognitive behavioral therapy, 12-step programs, Jewish spirituality, and art therapy. Although the duration of residential treatment varies with the individual, it usually lasts six months. During treatment, residents have an addiction counselor, a spiritual counselor, a therapist, and a psychiatrist. It is also mandatory for residents to attend Torah study and religious services. Torah study is taught by a rabbi for 30 minutes daily, while religious services take place on Friday nights and Saturdays for a few hours each day. Although Beit T'Shuvah consists of an on-site synagogue, it is not affiliated with a particular Jewish denomination and accepts individuals regardless of religious preference or religious belief.

Individuals are excluded from the center if they are under the age of 18, in need of medical detoxification, have a severe eating disorder, have a severe psychotic disorder that requires acute hospitalization, or have persistent aggressive behavior that would interfere with group

living. The program is not recommended for those who do not understand English. According to their website, the cost of treatment at Beit T'Shuvah is \$3,500 per month for in-state residents and \$5,500 for those who are out-of-state, but the center does not decline service to individuals based on inability to finance their stay.

Participants

Recruitment took place from January 2009 to September 2009 using flyers distributed to patients at the initial intake and posted at the residential setting. Self-selected participants interested in the study called the research assistant for information about the eligibility criteria and scheduled an interview for initial screening.

Clients were eligible to participate if they were between 18 and 65 years of age and agreed to attend follow-up sessions. Participants were excluded if they lacked the capacity to make informed medical decisions, were unable to read and write English, had been enrolled in the program for more than two weeks, were either a student or staff from the authors' university, were serving a court-mandated treatment, or had a known medical condition that would prevent them from participating in the entire protocol (e.g., blindness, pregnancy, terminal medical illness, etc.). Participants were given a \$5 gift certificate to a local chain coffee shop for every session.

This study was planned to span a window of one year, and the sample size was predetermined at 30–40 participants, which was the estimated patient count at the site during this time span. With 8–12 clients admitted to the center per month, 4–6 clients were expected to be interested in participating in the study, and 2–3 of the clients were expected to be eligible to participate per month. Participants completed consent forms before the start of the study. The UCLA Institutional Review Board granted ethical approval for the project.

Procedure

The screening session was conducted within two weeks after admission to the residential center, the subsequent baseline assessment was conducted within one week after the screening session, and the follow-up assessments were conducted at one, three, and six months after the baseline session. All assessments were conducted by a research assistant with a Master's degree. The screening session lasted approximately 2 hours and each follow-up session was approximately 30 minutes. Each session was conducted in a private room at the residential center. Data collection occurred from January 2009 to January 2010. Urine toxicology tests were conducted at all follow-up sessions to examine successful adherence to treatment. Participants were excluded from the study if they tested positive for illicit drug use or no longer met the eligibility criteria.

Screening session

During the screening visit, participants learned more about the study, completed consent forms, demographic questionnaires (including religious preference), the Mini-International Neuropsychiatric Interview Version 2.0 (MINI), and the Addiction Severity Index—Fifth Edition (ASI).

The MINI is a short, 15-minute structured diagnostic interview used for screening 17 psychiatric disorders.²⁹ The validity and reliability of this instrument is comparable to longer diagnostic tools and clinical judgments.^{30, 31} The MINI was used to screen for psychiatric comorbidity and examine its relationship with retention, as a large number of people with a substance related disorder have psychiatric comorbidities.^{32, 33} Clients with comorbid psychiatric conditions are more likely to discontinue treatment^{34, 35} and most

addiction treatment providers are unable to provide care for them due to insufficiency of resources available.³³

The ASI is a structured interview used to gather information about seven components linked to substance abuse (e.g., medical history, employment/support status, drug and alcohol use, legal background, family history, family/social relationships, and psychiatric problems). This valid and reliable instrument can help service providers develop treatment plans per patient with a calculated composite score for every component.^{36, 37} Although these scores are correlated with several repercussions associated with substance-related disorders (e.g., quality of life),³⁸ no link has been found between these scores and the motivation to change or treatment readiness.^{39, 40} In this study, the ASI was used to examine the overall addiction severity of this sample and determine whether a relationship existed between composite scores and retention.

Follow-up sessions

The Daily Spiritual Experience Scale (DSES) is a 16-item self-administered questionnaire used to examine the daily importance of religiosity and spirituality.^{9, 41} Over 70 published studies have used the DSES to examine R/S levels both cross-sectionally and longitudinally.⁴² Specifically, the literature on alcohol-related disorders has established a strong association between DSES scores and alcohol use, such that higher DSES scores are correlated with lower posttreatment alcohol consumption.^{43, 44} Questions on the DSES inquire about the respondent's frequency (many times a day, every day, most days, some days, once in a while, or never) of R/S experience (e.g., feel God's presence, experience a connection to all of life, find strength in religion or spirituality, ask for God's help in the midst of daily activities). For respondents who are not comfortable with referencing God, the questionnaire explicitly states "they should substitute another word that calls to mind the divine or holy." Continuum scores range from 16 to 100; a score of 16 indicates the highest level of R/S, while 100 represents the lowest. In this study, the DSES was used to explore the relationship between level of R/S and retention and to examine whether R/S levels changed for subjects who stayed in the program compared to those who dropped out.

Analysis

SPSS 18.0 was used to enter and analyze participant data. Subjects were classified into two groups: those who completed six months of treatment and those who dropped out before six months of treatment. Six months of treatment was chosen because it is the typical planned treatment stay at Beit T'Shuvah and has been used by other studies.^{28, 45} Statistical analyses (chi-square test, Fisher's exact test, or *t* test for independent samples) were conducted to determine if the two groups were statistically different based on demographic or psychiatric characteristics. Next, mean scores, standard errors, and 95% confidence intervals for DSES were calculated and reported for the two groups at baseline and follow-up sessions. A one-way ANOVA was conducted to determine whether there was a difference in DSES scores between the two groups at baseline. To determine whether R/S levels changed during treatment, means, standard errors, and 95% confidence intervals were calculated for the two groups at baseline and at one, three, and six months. For those subjects who dropped out, the last observed value was carried over under the assumption that their R/S level did not change. This procedure was used in several treatment studies examining outcome measures.⁴⁶ In addition, paired sample *t* tests were conducted to compare DSES scores at baseline to scores at one, three, and six months within each group (subjects who dropped out before 24 weeks versus those who stayed). Marginal means with standard errors were plotted.

Results

Retention rates

Thirty-three subjects participated in this study and completed the screening session (Fig. 1). Fifty-five percent ($n=18$) of the subjects were retained at 12 weeks, while 36% ($n=12$) of the subjects were retained at 24 weeks (Fig. 1). These retention rates are comparable to studies with larger sample sizes which have demonstrated a 57% retention at three months for a sample of 187 subjects²⁸ and a 37% retention at six months for a sample of 342 subjects.⁴⁵ In this study, out of the 21 subjects who dropped out before six months, 81% ($n=17$) optionally left the treatment, 10% ($n=2$) were forced out of the program for inappropriate behavior, 5% ($n=1$) declined to continue participation in the study, and 5% ($n=1$) were removed from the study due to positive drug results from urine toxicology tests.

Sample characteristics

The average age of the sample was 29 years old ($SD=11.17$) and the majority were male (64%), Caucasian (94%), unemployed (67%), single or never married (55%), and reported no income (42%) (Table 1). Fifty-two percent ($n=17$) reported Judaism and 42% ($n=14$) answered “none” for religious preference. According to the MINI, 56% ($n=19$) of the subjects screened positive for a mood disorder, 48% ($n=16$) screened positive for an anxiety disorder, 9% ($n=3$) screened positive for a psychotic disorder, 45% ($n=15$) screened positive for suicidality, and 91% ($n=30$) screened positive for a substance-related disorder. The most common substance-related disorders included alcohol ($n=18$), cocaine ($n=16$), marijuana ($n=16$), and narcotics ($n=15$). According to the ASI, employment and support component scores were most severe. More detailed sample characteristics are available upon request.

Retention, demographics, and psychiatric comorbidities

Statistical analyses (chi-square and Fisher’s exact tests) did not reveal any differences among demographic variables, including religious preference, in subjects who dropped out before six months compared to subjects who remained in treatment for at least six months (Table 1). In addition, there was no statistically significant relationship ($p<0.05$), determined by chi-square or Fisher’s exact tests, between retention and the presence of any psychiatric comorbidity (data not shown). Finally, independent sample t tests did not reveal a significant difference on the ASI component scores between the subjects who remained in treatment for six months and those who dropped out before six months (data not shown).

Religiosity and spirituality

The baseline DSES mean score for participants who remained in treatment for six months was 46.00 ($SE=4.51$) and the baseline DSES mean score for those who dropped out before six months was 63.83 ($SE=4.873$). A one-way ANOVA demonstrated a significant difference between these two groups at baseline ($F(14,11)=7.213$, $p=0.013$, effect size=0.481) (Table 2). No significant difference was found between DSES scores at baseline and different time points (one month, three months, and six months) for either group (Table 2 Fig. 2).

Discussion

This study examined the relationship between religious preference and level of R/S, and rate of retention at a Jewish-themed residential treatment center for substance-related disorders. Findings from this preliminary study demonstrate that, although self-reported religious preference was not associated with retention, patients who were retained for six months or longer had significantly higher R/S levels. This study reaffirms previous findings that demonstrate an association between R/S levels and positive treatment outcomes for

substance-related disorders.^{2, 47–50} Additionally, these findings show that this relationship is maintained in religious-themed centers.

The findings are clinically relevant in terms of enabling treatment providers at faith-based residential centers to better identify patients who may be more likely to drop out. It may be assumed that patients with a different religious preference than the faith-based residential setting may experience challenges conforming to the environment. As a result, these patients may have tenuous therapeutic alliances with providers and services, which may lead to increased rates of attrition. However, this study demonstrated that the patients' R/S level, rather than self-reported religious preference, was correlated with retention.

One negative finding from this study was the lack of change in R/S levels during the course of treatment. Although a similar study also did not document changes in R/S levels at a traditional residential treatment center for substance abuse,⁵¹ the static R/S levels of patients in this sample is surprising because of the requirement to participate in daily Torah study. Torah teachings suggest that, "the world is based on three things: Torah, service to God, and deeds of loving-kindness"⁵² and the DSES measures these components with regard to the frequency of experiencing such beliefs. Other studies have described "spiritual awakening" by patients recovering from substance-related disorders⁵³ and have demonstrated increased spirituality during successful 12-step involvement,^{54–56} including spiritual growth for recovering patients who were abstinent.⁵⁷

Limitations

The main limitation of this study is the sampling design (convenience sample at one location) and sample size, which may compromise the generalizability of these findings to other residential treatment settings. However, this sample had two main similarities with other samples drawn from larger studies: First, this sample consisted of similar rates of common comorbid psychiatric disorders found in larger studies with substance-abusing populations.⁴⁵ Second, retention rates for patients in this study were comparable to studies with larger sample sizes.^{28, 45} Since Jewish-themed residential settings for substance-related disorders are scarcely located across the USA and this study had many similarities to larger ones, the sampling design, size, and results may still be appropriate for a preliminary investigation.

The second limitation of this study is related to the challenges associated with instruments used to assess R/S levels.^{58, 59} Because the DSES does not provide cutoff scores for a categorical classification, it is clinically challenging to use this instrument to quickly identify patients who may drop out due to low R/S levels. Still, the DSES questionnaire can be used by clinicians as an initial measurement of a patient's R/S level. Lastly, because the study did not take into account other confounds that may have affected retention rates, the findings are limited in scope and warrant further investigation of specific factors that may influence treatment completion. For example, some studies have noted the importance of treatment readiness and motivation to change in retention outcomes; because level of spirituality has been positively associated with treatment readiness,^{60, 61} findings from this study may have pointed to treatment readiness, not spirituality, as the stronger predictor of retention.

Implications for Behavioral Health

With these findings in mind, providers at Jewish-themed and other religious-themed residential settings for substance-related disorders may provide more effective treatment to nonspiritual/nonreligious patients by implementing a client-centered approach based on their R/S levels. This approach is not novel; the Joint Commission on Accreditation of Healthcare

Organizations requires the administration of a spiritual assessment.⁶² Furthermore, investigators have discussed the importance of assessing R/S levels in the scientific literature.⁶³ This technique should not aim to raise R/S levels, as results from this study indicate that R/S levels remain constant during treatment and corroborate previous research findings.⁶⁴ Rather, innovative nonreligious/nonspiritual adjunct approaches that attempt to raise retention rates^{61, 65} should be incorporated. One example involves client-shared decision-making, which helps improve therapeutic alliance in patients with substance-related disorders.⁶⁶ Since incompatible R/S levels between the clients and providers may lead to problems with therapeutic alliance and, therefore,^{67, 68} greater attrition,^{69, 70} shared decision-making systems may be especially beneficial in this population. This approach also encompasses higher client participation, leading to greater client satisfaction and a greater sense of goal achievement.⁷¹ Overall, information from this study will help faith-based treatment providers incorporate specific elements into their programs to improve the likelihood of treatment completion.

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Figure 1.
Flow diagram

Figure 2.
DSES scores (marginal means with ± 1 standard error)

Table 1

Demographics

	Subjects who dropped out before 6 months (<i>n</i> =21)	Subjects who were retained for 6 months or longer (<i>n</i> =12)	Total (<i>n</i> =33)
Age (years)			
Mean	28.19	31.17	29.27
Standard deviation	10.40	12.66	11.17
Gender			
Male	14	7	21
Female	7	5	12
Self-reported religion			
Jewish	9	8	17
Other	1	1	2
None	11	3	14
Ethnicity			
White	19	12	31
Other	2	0	2
Employment			
Employed	2	1	3
Student	2	3	5
Retired, disabled, unemployed	16	7	23
No response	1	1	2
Income			
\$0	9	5	14
\$1–25,000	3	5	8
\$25,001–50,000	4	0	4
>\$50,001	5	2	7
Marital status			
Married or living with partner	4	1	5
Separated or divorced	5	5	10
Single/never married	11	7	18

Chi-square test, Fisher's exact test, or independent sample *t* tests did not reveal a difference between demographic variables based on the 6-month retention status

Table 2

Daily Spiritual Experience Scale

			95% confidence interval	
	Mean	Standard error	Lower bound	Upper bound
Subjects retained for 24 weeks or longer				
Baseline	46.000	4.511	36.690	55.310
1 month	47.357	4.909	37.225	57.489
3 months	46.571	4.084	38.143	55.000
6 months	46.571	3.956	38.407	54.736
Subjects who dropped out before 24 weeks				
Baseline	63.833	4.873	53.777	73.890
1 month	60.667	5.303	49.723	71.611
3 months	66.250	4.411	57.146	75.354
6 months	66.333	4.273	57.515	75.152

Analysis demonstrated a significant statistical difference in DSES mean scores between subjects who dropped out before 6 months and subjects who were retained for 24 weeks or longer at baseline (independent sample *t* tests: $F=7.213$, $p=0.013$, effect size=0.481). Paired sample *t* tests did not reveal a statistically significant difference between baseline DSES scores and different time points for either group