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THE ROLE OF SPIRITUALITY AND RELIGIOUSNESS IN AIDING RECOVERY FROM ALCOHOL AND OTHER DRUG PROBLEMS: AN INVESTIGATION IN A NATIONAL U.S. SAMPLE

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Abstract

Background: More Americans than ever before are identifying as “spiritual but not religious”. Both spirituality and religiousness (S/R) are of interest in the addiction field as they are related to alcohol and other drug (AOD) problems and are central to some recovery pathways. Yet, little is known overall about S/R identification among people in recovery, the role these play in aiding recovery, and whether they play more or less of a role for certain sub-groups (e.g., men/women, different races/ethnicities; those with treatment or 12-step histories).

Method: Nationally representative cross-sectional sample of US adults (N=39,809) screening positive to the question, “Did you use to have a problem with alcohol or drugs but no longer do?” (final weighted sample *n*= 2,002). Weighted Chi-Square and Poisson-distributed generalized linear mixed models tested for differences in S/R and for differences across subgroups on extent of: 1) religious, and, 2) spiritual, identification, and the extent to which these had aided recovery.

Results: Participants reported being mostly moderately spiritual and religious, and that, overall, religion had not helped them overcome their AOD problem. In contrast, spirituality was reported as either not helping at all, or having made all the difference. Substantial differences were observed by race-ethnicity across both spirituality and religiousness, and to a lesser degree between men and women. Black Americans reported substantially more S/R than Whites and that these often made all the difference in their recovery. The exact opposite trend was observed for White and Hispanic Americans. Prior professional treatment and 12-step mutual-aid use were both related to greater spirituality, but not religiousness.

Conclusion: Overall, spirituality but not religion, appears to play a role in aiding recovery particularly among those with prior treatment or 12-step histories, but women and men, and racial-ethnic groups in particular, differ strikingly in their religious and spiritual identification and the role these have played in aiding recovery. These differences raise the question of the potential clinical utility of S/R in personalized treatment.

Keywords

addiction; recovery; spirituality; religion; substance use disorder

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Introduction

The potential medical and psychological benefits of religious and spiritual involvement have been postulated for centuries but examined empirically only more recently regarding their potential role in recovery from a variety of health conditions (e.g., Fincham et al, 2018; Gurak et al, 2017; Jim et al, 2015) and trauma and stress (Pargament et al, 1998; Henslee et al, 2015). Regarding substance use and addiction, most spiritual-religious (S/R) traditions globally either proscribe against any use of intoxicating substances, or if permitting use, frown upon heavy use because it can be deleterious to health and cause intoxication that in turn can lead to transgressions. Consequently, these socio-cultural rules and mores inherent in different S/R traditions have been associated with lower levels of onset of harmful and hazardous substance use (Burdette et al., 2018, Medlock et al., 2017, Park et al., 2017, Sussman et al., 2013). Also, perhaps more than with any other psychiatric illness, S/R practices and beliefs have long been associated with alcohol and other drug addiction and recovery (Kelly and White, 2011, Connors et al., 2008, Dunlop and Tracy, 2013, Galanter, 2006, Kelly et al., 2011b, Krentzman et al., 2013). The American Society of Addiction Medicine (ASAM), for example, includes spirituality in its definition of addiction ("Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations…". American Society of Addiction Medicine, 2011). it is plausible that the disinhibiting pharmacological properties inherent in alcohol and other drugs of misuse, or the increasing impaired cognitive control over regulating substance use despite harmful consequences—a hallmark of addiction—produce behavior incongruous with individuals' own moral code or values, which subsequently leads to remorse, guilt, and shame. This is perhaps part of the reason that so many severely affected individuals seek S/R frameworks that facilitate atonement for past transgressions (Kelly et al., 2011b). This may be especially true for those with a S/R background. On the other hand, religion may harm others. For many, tacit opposition to, or active rebellion against, their prior S/R background may be cited as an actual reason for starting, or continuing to engage in substance use, and may be perceived as a hindrance rather than a help in changing addictive behavior (Weber and Pargament, 2014).

Of note, the most well-known and well attended worldwide addiction recovery mutual-help organization, Alcoholics Anonymous (AA), has at its core an emphasis on spirituality and spiritual change as major mechanisms necessary for successful recovery (Kelly, 2017, AA, 2001, Tonigan et al., 2013). This approach has given rise to myriad other 12-step-based organizations based on AA's original structure addressing a broad range of compulsions and addictions that have proven popular among individuals with substance and behavioral addictions (Humphreys, 2004, Kelly and Yeterian, 2013). Although empirically, the research in this area indicates AA supports abstinence and reduces relapse risk by mobilizing salutary social, cognitive, and affective changes, it is nevertheless associated with increased S/R practices, which have been shown to partially explain AA's beneficial effects on reducing relapse risk (Kelly et al., 2011b). S/R practices may have other indirect benefits beyond reducing or ending substance use, such as increasing psychological well-being and reducing

depression symptoms, supporting emotion regulation, and aiding coping with the stresses of everyday life (Pargament et al, 1990; Kelly, 2017, Kelly et al., 2011a).

Within the public health and treatment realm for substance use disorder (SUD), several clinical studies have shown that S/R behaviors and beliefs are protective against onset of substance use and SUD, and are also associated with reduced relapse risk during and following treatment (Zemore and Kaskutas, 2004, Kaskutas et al., 2014, Kelly et al., 2011b). We have found that those with more severe alcohol or other drug (AOD) problems may be more likely to use S/R therapeutically to aid recovery, perhaps because they are more severely impaired and more open to S/R ideas (Kelly and Hoeppner, 2013). Of note too, is the increase in America of the number of people who identify as “spiritual but not religious” (Mercadante, 2014, Kurtz and White, 2015). Thus, these constructs (spirituality vs religiousness), while correlated, may represent different beliefs, behaviors, and experiences. There are many formal definitions of religion and what it means to be “religious”. In essence, to be religious typically involves following a set of well-defined beliefs and practices associated with a deity or deified being. Definitions of religiousness can also include the term “spirituality”, without explicitly defining it. In contrast, “to be spiritual” (but not necessarily religious), implies a broader recognition of powers greater than oneself (e.g., the universe, nature) and a broad array of associated beliefs and practices that may or may not fit within the realm of different religions and are more likely to be self-defined and self-governed.

Little is known from a systematic scientific standpoint about these phenomena among the broad array of individuals who have successfully resolved a significant AOD problem. How these individuals engage with, or draw meaning from, S/R and to what extent these beliefs and practices have played a role in their successful AOD problem resolution is largely unknown. Also, little is known regarding whether these variables are more important for certain demographic and clinical subgroups than others. Black African Americans for example, may have a strong sociocultural Baptist tradition with family rituals and customs centered around the church community that suggest S/R could play a more important role in recovery than other groups (Chatters et al., 2008, Chatters et al., 2009) and S/R is a central focus of 12-step programs like AA. Greater knowledge in this area may help uncover helpful recovery S/R paths or influences that might be emphasized and amplified for certain individuals or subgroups seeking recovery.

To this end, the current investigation examined these phenomena in a national U.S. sample of individuals who reported overcoming a significant AOD problem (Kelly et al, 2017). Specifically, we: 1) estimated the degree to which recovering individuals report being spiritual or religious 2) estimated the degree to which recovering individuals report that spirituality or religiousness helped them in recovery, 3) tested whether there were differences in 1) and 2) above based on demographic (sex; race-ethnicity) and clinical (history of formal treatment and/or 12-step participation) variables.

Method

Procedures

The National Recovery Survey (NRS) recruited a nationally representative sample of U.S. noninstitutionalized adults who had resolved an AOD problem. As described in Kelly et al. (Kelly et al., 2017), the research team contracted with an internationally-recognized survey company, GfK, to recruit individuals that resolved an AOD problem from their KnowledgePanel, which uses address-based sampling to randomly select individuals from 97% of all U.S. households based on the U.S. Postal Service's Delivery Sequence File. See http://www.knowledgenetworks.com/knpanel/docs/knowledgepanel(R)-design-summary-description.pdf for more information on GfK's probability based sampling methodology.

Participants were screened between July and August 2016. Of the 25,228 individuals screened, 2,002 answered yes to the AOD problem resolution screening question, "Did you use to have a problem with drugs or alcohol, but no longer do?" and were determined to be valid responders, comprising the analyzable study sample. In order to produce unbiased estimates of population parameters from these respondents, survey weights were used. While reflecting the selection probabilities of sampled units, weighting also attempts to compensate for nonresponse and under-coverage (see Kelly et al, 2017 for more details). All study procedures were approved by the Partners HealthCare Institutional Review Board.

Measures

Demographic Characteristics: Demographic data was derived both from GfK's existing KnowledgePanel data (collected prior to the survey) as well as from survey data for variables not assessed by GfK. Regarding existing demographic data, participants reported the following: a) age; b) level of education (less than high school; high school; some college; bachelor's degree or higher), race/ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other/Non-Hispanic, 2+ Races/Non-Hispanic, Hispanic), gender (Male, Female), household income (less than $25,000, $25,000-$49,999, $50,000-$74,999, $75,000-$99,999, $100,000 or greater), marital status (married, widowed/divorced/separated, never married, living with partner), and current employment status (yes/no).

Treatment and other recovery support services: This questionnaire assessed history of participation in inpatient or residential treatment, outpatient addiction treatment and mutual-help organizations (MHOs) (Institute of Behavioral Research, 2002). If they responded yes to a treatment service, they then reported the number of treatment episodes. We assessed lifetime attendance to help with their AOD problem at 11 different MHOs (e.g., AA, SMART Recovery, LifeRing Secular Recovery). For each MHO attended, participants reported, a) whether they ever attended regularly (at least once per week), b) number of meetings attended in the past 90 days, and c) age of first attendance.

Spirituality/Religiousness: The survey included three items assessing participants' spirituality and three assessing their religiousness. For each domain, participants reported the extent to which they considered themselves spiritual/religious on a Likert scale from 1 = *not spiritual/religious at all* to 4 = *very spiritual/religious* (Idler et al., 2003). They also

reported on a Likert scale from 1 = *have not helped at all* to 5 = *made all of the difference*, how influential their spiritual/religious beliefs and practices were in resolving their AOD problem, and whether their spirituality/religiousness had increased, decreased, or stayed the same since they resolved their AOD problem.

Analyses

We estimated: 1) The degree to which recovering individuals report being spiritual or religious, 2) the degree to which recovering individuals report their spirituality or religiousness helped them overcome their problem with AOD, 3) the degree to which demographic (e.g., sex, race-ethnicity) and/or clinical subgroups (e.g., those with histories of formal treatment, and/or 12-step participation) differed in their spirituality and religiousness, and 4) the degree to which demographic and/or clinical subgroups differed in the degree to which spirituality or religiousness helped them overcome their AOD problem. Weighted chi square analyses were employed to test the null hypothesis that frequencies were equal across categories. Post hoc tests of independence for categorical variables were conducted using multiple comparison. Effects of sex and race on these measures were explored using weighted, Poisson distributed, generalized linear mixed models with least square means post hoc testing and Tukey-Kramer correction to account for test-wise alpha inflation.

Results

Participant characteristics (out of 2,002) are presented in Table 1. Men and women were both well-represented in the sample. Large proportions of young adults and mid-life stage adults were also present; almost 40% were racial/ethnic minorities (see table 1).

Extent of Spiritual and Religious endorsement overall among participants

Spirituality—Figure 1 (top) characterizes participant spirituality. There were significant differences across endorsement categories (χ^2[3, N= 1947]= 132.58, p< .0001) with participants more likely to report being ‘moderately spiritual’ in comparison to ‘not at all spiritual’ (p< .0001), or ‘slightly spiritual’ (p= .003). Spirituality was moderated by race (F [4, 1977]= 10.37, p< .0001), with Black non-Hispanic participants endorsing greater spirituality than White non-Hispanic participants (t [1977]= 6.35, p< .0001), Hispanic participants (t [1977]= 4.79, p< .0001), and Other non-Hispanic participants (t [1977]= 2.85, p= .04), after Tukey-Kramer correction (Figure 2, top-left). All other post hoc race comparisons for spirituality were non-significant (p>. 05).

Sexes differed in their reported levels of spirituality, with women endorsing greater spirituality than men (F [1, 1980]= 15.62, p< .0001).

Religiousness—As depicted in Figure 1 (top), there were differences across endorsed categories (χ^2[3, N= 1966]= 109.86, p< .0001) with participants significantly more likely to endorse being ‘moderately religious’ compared to ‘not at all religious’ (p< .0001), ‘slightly religious’ (p< .0001), or ‘very religious’ (p< .0001). Notably, religiousness varied by race (F [4, 1986]= 13.27, p< .0001; Figure 2, bottom-left). After Tukey-Kramer correction to control for test-wise alpha inflation, Black non-Hispanic participants were shown to endorse greater

religiousness than White non-Hispanic participants (t [1986]= 7.26, p< .0001), Hispanic participants (t [1986]= 4.28, p< .0001), and Other non-Hispanic participants (t [1986]= 3.20, p= .01). All other post hoc race comparisons for religiousness were non-significant (p>. 05).

Religiousness did not significantly vary by sex (p> .05).

Degree to which spirituality and religiousness helped participants overcome addiction

Spirituality—Omnibus (χ^2 [4, N= 1962]= 21.09, p< .001) and post hoc tests indicated participants were more likely to endorse their spiritual beliefs or practices ‘have not helped at all’, or ‘making all the difference’ in comparison to helping ‘moderately’, or ‘a lot’ (p’s< .05). At the same time, participants were not more likely to endorse that their spiritual beliefs or practices ‘have not helped at all’, in comparison to ‘made all the difference’ (p> .05) with regards to them overcoming their problem with AOD (Figure 1, bottom).

Participant endorsement of spiritual beliefs and convictions helping them overcome their problem with AOD was moderated by race (F [4, 1981]= 29.52, p< .0001), with post hoc Tukey-Kramer correction indicating that Black non-Hispanic participants endorsed that their spiritual beliefs or practices were more important for them overcoming their problem with AOD than White non-Hispanic participants (t [1981]= 10.63, p< .0001), Hispanic participants (t [1981]= 7.42, p< .0001), Other non-Hispanic participants (t [1989)=]4.85, p< .0001), and 2+ Races non-Hispanic participants (t [1981]= 4.33, p= .0002; Figure 2, top-right).

Sexes differed in the degree to which their spirituality helped them overcome their problem with AOD, with women endorsing spirituality being more important for them overcoming their problem with AOD than men (F [1, 1984]= 19.23, p< .0001).

Religiousness—Omnibus (χ^2 [4, N= 1974]= 163.62, p< .0001) and post hoc tests indicated participants were significantly more likely to indicate that their religious beliefs and convictions ‘had not helped at all’ in terms of them overcoming their problem with AOD, than had “helped a lot’ (p< .0001), or ‘made all the difference’ (p< .0001; Figure 1, top).

Participant endorsement of religious beliefs and convictions helping them overcome their problem with AOD was moderated by race (F [4, 1989]= 35.71, p< .0001), with post hoc testing with Tukey-Kramer correction indicating that Black non-Hispanic participants were more likely to endorse that their religious beliefs and convictions had helped them overcome their problem with AOD than White non-Hispanic participants (t [1989]= 11.80, p< .0001), Hispanic participants (t [1989]= 6.90, p< .0001), Other non-Hispanic participants (t [1989]= 4.70, p< .0001), and 2+ Races non-Hispanic participants (t [1989]= 4.47, p< .0001; Figure 2, bottom-right). Additionally, Hispanic participants were more likely to endorse that their religious beliefs and convictions were important for helping them overcome their problem with AOD than White non-Hispanic participants (t [1989]= 3.12, p= .02). All other post hoc race comparisons were non-significant (p>. 05).

Sexes differed in the degree to which their religiousness helped them overcome their problem with AOD (F[1, 1992]= 13.19, p= .0003), with women indicating their religious beliefs and practices were more important for them overcoming their problem with AOD than for men.

Spirituality and religiousness among those who did and did not use formal treatment, or 12-step mutual-aid programs

Participants who did and did not use formal treatment to overcome their problem with AOD were not significantly different in terms of their religiousness (F[1, 1989]= 0.02, p= ns), however, participants who used formal treatment did endorse greater spirituality than those who did not use formal treatment (F[1, 1980]= 5.92, p= .02).

Similarly, participants who did and did not regularly attend 12-Step meetings to overcome their problem with AOD were not significantly different in terms of their religiousness, (F[1, 1989]= 1.44, p= ns), however, participants who regularly attended 12-Step meetings did endorse greater spirituality than those who did not regularly attend 12-Step meetings (F[1, 1980]= 14.58, p< .0001).

Degree to which spirituality and religiousness helped participants overcome their problem with AOD among those who did and did not use formal treatment, and 12-Step programs

Compared to participants who did not use formal treatment, those who did use formal treatment were significantly more likely to endorse that their spiritual (F[1, 1984]= 17.77, p< .0001), and religious convictions (F[1, 1992]= 4.19, p= .04) helped them overcome their problem with AOD.

Participants who regularly attended 12-Step meetings were also significantly more likely to endorse that their spiritual (F[1, 1984]= 42.85, p< 0001; Figure 3, top), and religious (F[1, 1992]= 24.10, p< .0001; Figure 3, bottom) beliefs and convictions helped them overcome their problem with AOD.

Discussion

In this nationally-representative sample of individuals who had resolved a significant AOD problem, participants reported being mostly moderately spiritual and religious, and that overall, religion had not helped them overcome their AOD problem. In contrast, participants tended to report that spirituality either had not helped at all, or had made all the difference in their recovery. Most strikingly, however, was the observation that these responses were so substantially different by race-ethnicity (across both spirituality and religiousness), and to a lesser degree also different across men and women (on spirituality only). Regarding the relationship between prior professional treatment, community 12-step mutual-help use, and spirituality and religiousness, prior treatment and prior 12-step were both unrelated to religiousness, but both significantly related to greater spirituality. Finally, compared to those not reporting use of treatment or 12-step, those who did use treatment or 12-step were more likely to report that spirituality, and to a lesser degree religiousness had helped them overcome their AOD problem.

Of note, findings revealed how much more spiritual and religious Americans of Black race-ethnicity are compared to other races. Noteworthy too, was that for White participants, there was a clear declining relationship in the importance of the role that both spirituality and religiousness had played in the recovery; for Black participants, it was the opposite—only a very small proportion of Blacks reported that spirituality or religion had not helped at all, with ever increasing proportions reporting that it helped a lot and had, in for many, made all the difference. This disordinal interaction is striking from a phenomenological, cultural, and potentially, clinical and recovery support services, perspective. The exact mechanisms through which religion and spirituality may play such an important perceived role in AOD recovery for Black Americans remains to be clarified, as it is not immediately obvious how such beliefs and practices might reduce relapse risk and aid recovery so strongly (Kelly and Greene, 2014). It is plausible that, consistent with social control theory (Ross, 1901), making new prosocial bonds and adopting transformative spiritual/religious beliefs and practices that proscribe intoxication or illegal drug use could help explain this. Alternatively, the encouragement for personal disclosure and re-unification with a strong socially-oriented community and support that increase meaning and purpose (Krentzman et al., 2010), help extricate these individuals from substance-using social networks and thereby reduce exposure to drug cues and direct offers. Further research is needed to understand more about the exact reasons why this be particularly helpful for Black Americans in recovery. These findings also may have important implications for treatment matching, with Black Americans potentially benefitting from a greater clinical focus on, and linkage to, spiritual and religious recovery support resources. Conversely, for White Americans, more secular approaches may be emphasized in order to attract and engage them and foster long-term recovery. Future research should examine this matching possibility.

In addition, although not as stark a difference as between Blacks and Whites in the role that spirituality and religiousness played in aiding AOD problem resolution and recovery, men and women also differed, with women reporting that spirituality and religiousness played a more important role in aiding their recovery than did men. Other research has found S/R gender differences (e.g., Krentzman 2017; Maselko and Kubzansky, 2006), but it is unclear the exact reasons for such difference. This should be explored in more detail.

As might be expected, 12-step participation was related to both spirituality and religiousness with a marked linear association between spirituality and its reported helpfulness in aiding participants' AOD problem resolution, and a more curvilinear association for religiousness. Specifically, there was a larger number of 12-step attendees who reported that religion had not helped at all compared to 12-step attendees who reported that spirituality had not helped at all. On the other hand, for 12-step non-attendees, the association between the perceived role that both spirituality and religiousness played in recovery was not substantially different, with the exception of "not helping at all" where 12-step non-attendees were much more likely to answer affirmatively. This fits with other work showing that spirituality/religiousness is a significant, but not strong predictor of future 12-step participation (Winzelberg and Humphreys, 1999). There are several other factors which may be more salient and important in terms of 12-step participation.

Limitations

The study's findings should be considered in light of important limitations. Reported findings here rely on self-report, are largely descriptive, limited in detail, and reflect perceptions about the role that spirituality and religiousness have played in aiding recovery; we cannot surmise from these cross-sectional data the actual salutary role these spiritual/religious factors may have had on recovery – only their perceived value. Also, because the definition of spirituality and religion was not provided and was left to participants to define it is possible that participants may have been confused as to their distinctness. It should be kept in mind also that the term "resolution of an AOD problem" that we use in this paper may overlap with, but not necessarily signify diagnostic remission. This study was intended to capture the broader population of individuals who perceive at least some kind of self-defined problem with AOD use, including those with substance use disorder. This level of AOD problem severity has high public health significance because there are a large proportion of individuals who engage in consequential AOD use (e.g., drive while intoxicated/get a DUI), but do not meet diagnostic criteria for AOD disorder. Our study is cross-sectional and correlational, therefore, appropriate caution should be taken when making inferences about dynamic changes in the same individuals, as well as any causal connections among variables. Future research should attempt to capture dynamic shifts longitudinally in the same individuals over time to shed more light on these preliminary findings.

Conclusions

Spirituality and religiousness are of theoretical, empirical, and cultural interest in the area of AOD problems, as they have been shown to play a role in the onset and offset of such problems, and in AOD recovery. In this nationally-representative sample of individuals who have resolved an AOD problem, this study found overall moderate levels of spirituality and religiousness, and differences between men and women in the degree to which spirituality and religiousness aided recovery. There were also stark and dramatic differences along racial-ethnic lines in the endorsement of spiritual and religious beliefs and practices and in the role spirituality and religion had played in helping them overcome their AOD problem. Most strikingly, compared to other racial-ethnic groups, Black Americans appear to be much more spiritual and religious and report that spirituality and religiousness had made all the difference in aiding their recovery. Similar to other research on Black American spiritual and religious beliefs regarding and treatment (Johnson et al., 2005), findings here may have implications for including spiritual/religious concepts and linkages in treatment and recovery support service settings for Black Americans suffering from AOD problems. That said, there is of course high variability among Black American spiritual and religious beliefs, attitudes, and behaviors. Thus, individual assessment should be conducted to uncover the utility of such spiritual and religious emphasis or linkages to related services.

References

Alcoholics Anonymous 2001. Alcoholics anonymous: The story of how Many thousands of men and women have recovered from alcoholism, New York, NY, Alcoholics Anonymous World Services.

American Society of Addiction Medicine. 2011. Definition of Addiction [Online]. Available: https://www.asam.org/resources/definition-of-addiction [Accessed].

Burdette AM, Webb NS, Hill TD, Haynes SH & Ford JA 2018. Religious Involvement and Marijuana Use for Medical and Recreational Purposes. J Drug Issues, 48, 421–434. [PubMed: 29899577]

Chatters LM, Taylor RJ, Bullard KM & Jackson JS 2009. Race and Ethnic Differences in Religious Involvement: African Americans, Caribbean Blacks and Non-Hispanic Whites. Ethn Racial Stud, 32, 1143–1163. [PubMed: 20975850]

Chatters LM, Taylor RJ, Jackson JS & Lincoln KD 2008. Religious Coping Among African Americans, Caribbean Blacks and Non-Hispanic Whites. J Community Psychol, 36, 371–386. [PubMed: 21048887]

Connors GJ, Walitzer KS & Tonigan JS 2008. Spiritual change in recovery. In: Galanter M & Kaskutas LA (eds.) Research on Alcoholics Anonymous and spirituality in addiction recovery. Recent developments in alcoholism. New York, NY: Spring Science + Business Media.

Dunlop WL & Tracy JL 2013. Sobering stories: narratives of self-redemption predict behavioral change and improved health among recovering alcoholics. J Pers Soc Psychol, 104, 576–90. [PubMed: 23437925]

Fincham FD, Seibert GS, May RW, Wilson CM, Lister ZD. 2018. J Marital Fam Ther 1;44(1):138–149. doi: 10.1111/jmft.12241. Epub 2017 Jun 7. [PubMed: 28589560]

Galanter M 2006. Spirituality and addiction: A research and clinical perspective. The American Journal on Addiction, 15, 286–292.

Gurak KK, Weisman de Mamani A, Ironson G. 2017 Do es religiosity predict attrition from a culturally-informed family treatment for schizophrenia that targets religious coping? J Consult Clin Psychol. 10;85(10):937–949. doi: 10.1037/ccp0000234. [PubMed: 28956949]

Henslee AM, Coffey SF, Schumacher JA, Tracy M, Norris FH, Galea S. 2015. Religious Coping and Psychological and Behavioral Adjustment After Hurricane Katrina. J Psychol.;149(6):630–42. doi: 10.1080/00223980.2014.953441. Epub 2014 Oct 2. [PubMed: 25275223]

Humphreys K 2004. Circles of recovery: Self-help organizations for addictions, Cambridge, UK, Cambridge University Press.

Idler EL, Musick MA, Ellison CG, George LK, Krause N, Ory MG, Pargament KI, Powell LH, Underwood LG & Williams DR 2003. Measuring multiple dimensions of religion and spirituality for health research: Conceptual background and findings from the 1998 General Social Survey. Research on Aging, 25, 327–365.

Institute of Behavioral Research 2002. TCU Comprehensive Intake (TCU CI), Fort Worth, Texas Christian University, Institute of Behavioral Research. Available at ibr.tcu.edu.

Jim HS, Pustejovsky JE, Park CL, Danhauer SC, Sherman AC, Fitchett G, Merluzzi TV, Munoz AR, George L, Snyder MA, Salsman JM. 2015 Religion, spirituality, and physical health in cancer patients: A meta-analysis. Cancer. 11 1;121(21):3760–8. doi: 10.1002/cncr.29353. Epub 2015 Aug 10 [PubMed: 26258868]

Johnson KS, Elbert-Avila KI & Tulsky JA 2005. The influence of spiritual beliefs and practices on the treatment preferences of African Americans: a review of the literature. J Am Geriatr Soc, 53, 711–9. [PubMed: 15817022]

Kaskutas LA, Borkman TJ, Laudet A, Ritter LA, Witbrodt J, Subbaraman MS, Stunz A & Bond J 2014. Elements that define recovery: the experiential perspective. J Stud Alcohol Drugs, 75, 999–1010. [PubMed: 25343658]

Kelly JF 2017. Is Alcoholics Anonymous religious, spiritual, neither? Findings from 25 years of mechanisms of behavior change research. Addiction, 112, 929–936. [PubMed: 27718303]

Kelly JF & Greene MC 2014 Toward an enhanced understanding of the psychological mechanisms by which spirituality aids recovery in Alcoholics Anonymous. Alcoholism Treatment Quarterly, 32, 299–318.

Kelly JF & Hoeppner BB 2013. Does Alcoholics Anonymous work differently for men and women? A moderated multiple-mediation analysis in a large clinical sample. Drug Alcohol Depend, 130, 186–93. [PubMed: 23206376]

Kelly JF, Hoeppner BB, Bergman BG & Vilsaint CL 2017. Recovery from substance use disorder in the Uniterd States: Prevalence, characteristics, and pathways from the first national probability-based sample Alcoholism: Clinical and Experimental Research, 41, 179A.

Kelly JF, Stout RL, Magill M & Tonigan JS 2011a. The role of Alcoholics Anonymous in mobilizing adaptive social network changes: A prospective lagged mediational analysis. Drug and Alcohol Dependence, 114, 119–126. [PubMed: 21035276]

Kelly JF, Stout RL, Magill M, Tonigan JS & Pagano ME 2011b. Spirituality in recovery: A lagged mediational analysis of Alcoholics Anonymous' principal theoretical mechanism of behavior change. Alcohol Clin Exp Res, 35, 454–63. [PubMed: 21158876]

Kelly JF & White WL 2011. Recovery management and the future of addiction treatment and recovery in the USA. In: Kelly JF & White WL (eds.) Addiction Recovery Management. New York, NY: Humana Press.

Kelly JF & Yeterian JD 2013. Mutual-Help Groups for Alcohol and Other Substance Use Disorders. In: BS M & EE E (eds.) Addictions: A Comprehensive Guidebook. New York: Oxford University Press.

Krentzman AR 2016. Longitudinal Differences in Spirituality and Religiousness between Men and Women in Treatment for Alcohol Use Disorders. Psycholog Relig Spiritual.;9(Suppl 1):S11–S21. doi: 10.1037/rel0000096. Epub Aug 8. [PubMed: 29250216]

Krentzman AR, Cranford JA & Robinson EA 2013. Multiple dimensions of spirituality in recovery: a lagged mediational analysis of Alcoholics Anonymous' principal theoretical mechanism of behavior change. Subst Abus, 34, 20–32. [PubMed: 23327501]

Krentzman AR, Farkas KJ & Townsend AL 2010. Spirituality, Religiousness, and Alcoholism Treatment Outcomes: A Comparison between Black and White Participants. Alcohol Treat Q, 28, 128–150. [PubMed: 22707846]

Kurtz E & White W 2015. Recovery Spirituality. Religions, 6, 58.

Maselko J, Kubzansky LD. Gender differences in religious practices, spiritual experiences and health: results from the US General Social Survey. 2006. Soc Sci Med. 6;62(11):2848–60. Epub 2005 Dec 15. [PubMed: 16359765]

Medlock MM, Rosmarin DH, Connery HS, Griffin ML, Weiss RD, Karakula SL & McHugh RK 2017. Religious coping in patients with severe substance use disorders receiving acute inpatient detoxification. Am J Addict, 26, 744–750. [PubMed: 28836712]

Mercadante LA 2014. Belief without borders: inside the minds of the spiritual but not religious, New York, Oxford University Press.

Pargament KI, Smith BW, Koenig HG, Perez L. 1998. Patterns of positive and negative religious coping with major life stressors. J Sci Study Religion;37:711–725

Park CL, Masters KS, Salsman JM, Wachholtz A, Clements AD, Salmoirago-Blotcher E, Trevino K & Wischenka DM 2017. Advancing our understanding of religion and spirituality in the context of behavioral medicine. J Behav Med, 40, 39–51. [PubMed: 27342616]

Ross EA 1901. Social Control; a survey of the foundations of order, New York, The Macmillan Company; London, Macmillan & Co., ltd.

Sussman S, Milam J, Arpawong TE, Tsai J, Black DS & Wills TA 2013. Spirituality in addictions treatment: wisdom to know…what it is. Subst Use Misuse, 48, 1203–17. [PubMed: 24041182]

Tonigan JS, Rynes KN & McCrady BS 2013. Spirituality as a change mechanism in 12-step programs: A replication, extension, and refinement. Substance Use & Misuse, 48, 1161–1173. [PubMed: 24041178]

Weber SR, Pargament KI. 2014 The role of religion and spirituality in mental health. Curr Opin Psychiatry. Sep;27(5):358–63. doi: 10.1097/YCO.0000000000000080.

Winzelberg A & Humphreys K 1999. Should patients' religiousness influence clinicians' referral to 12-step self-help groups? Evidence from a study of 3,018 male substance abuse patients. Journal of Consulting and Clinical Psychology, 67, 790–794. [PubMed: 10535246]

Zemore SE & Kaskutas LA 2004. Helping, spirituality and Alcoholics Anonymous in recovery. J Stud Alcohol, 65, 383–91. [PubMed: 15222595]

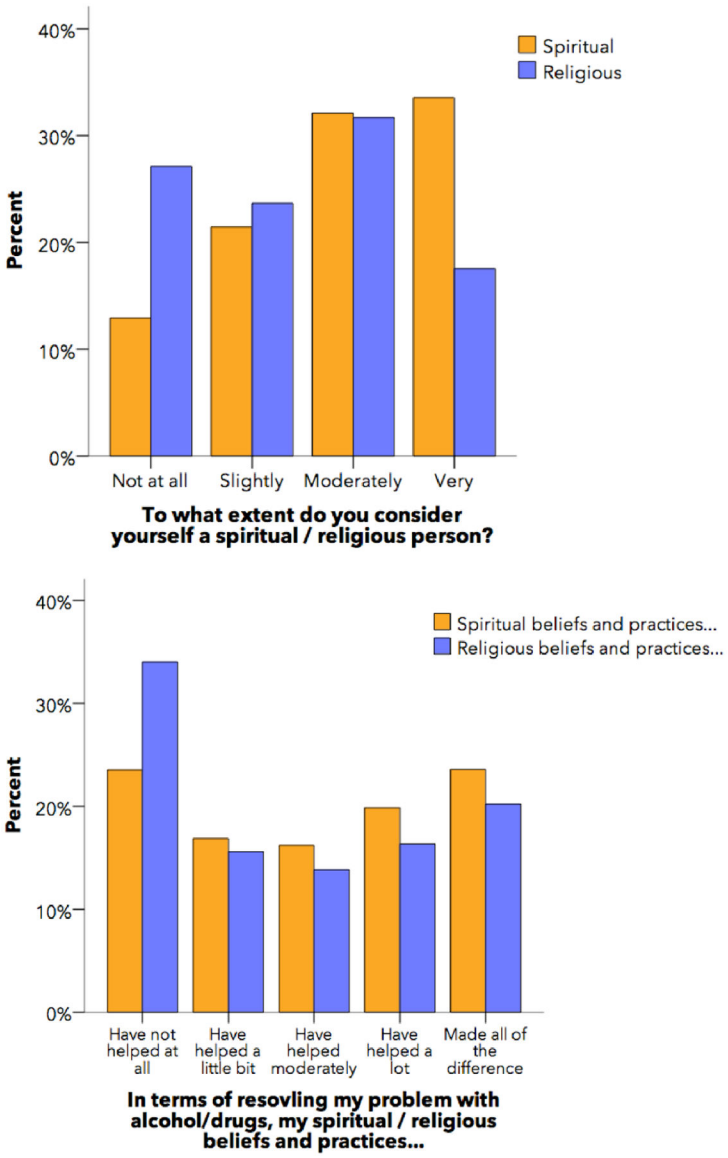

Figure 1:
Distribution of participant spirituality and religiousness (top).

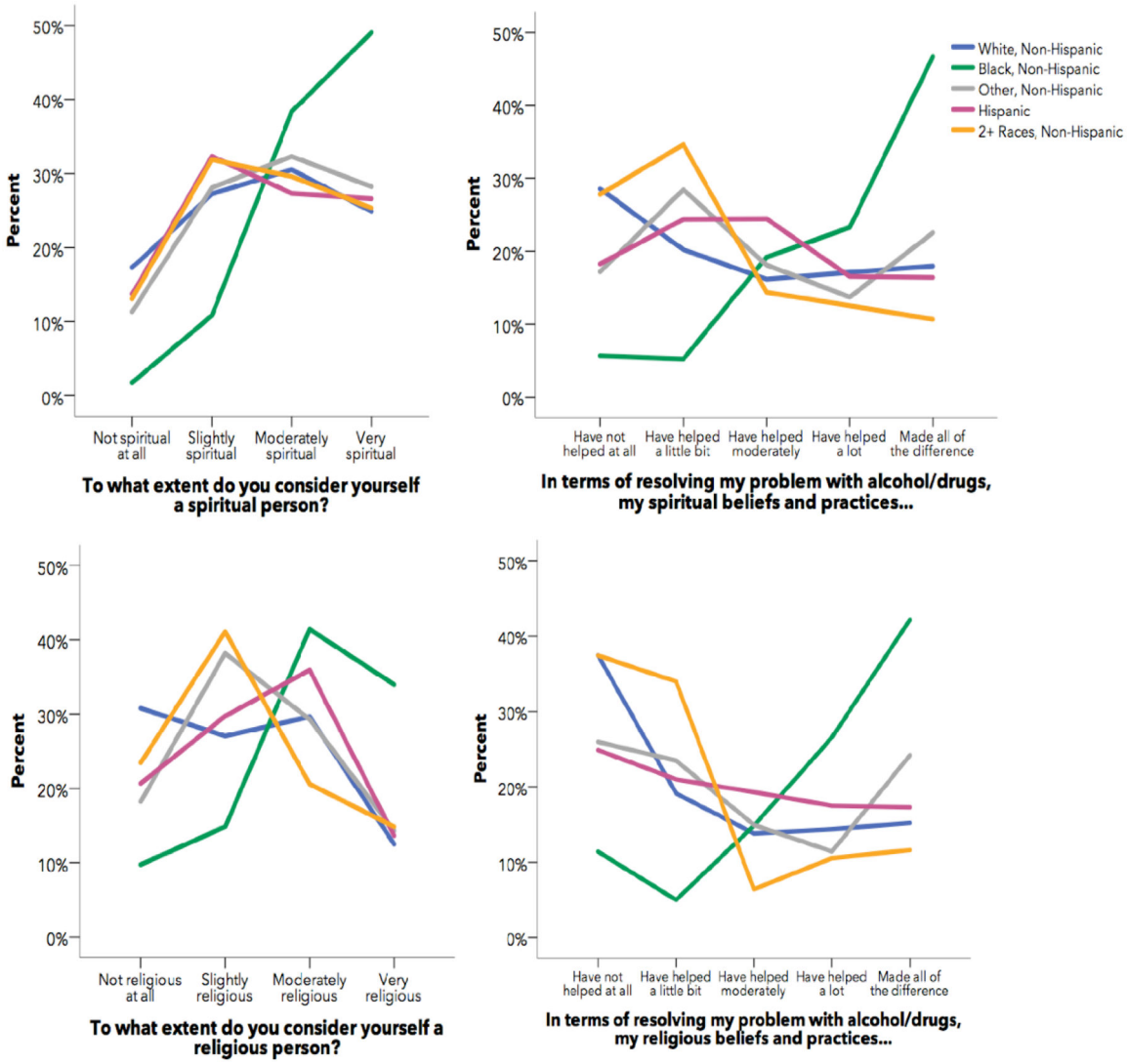

Figure 2:

Distribution of participant spirituality (top-left) and religiousness (bottom-left) by race/ethnicity.

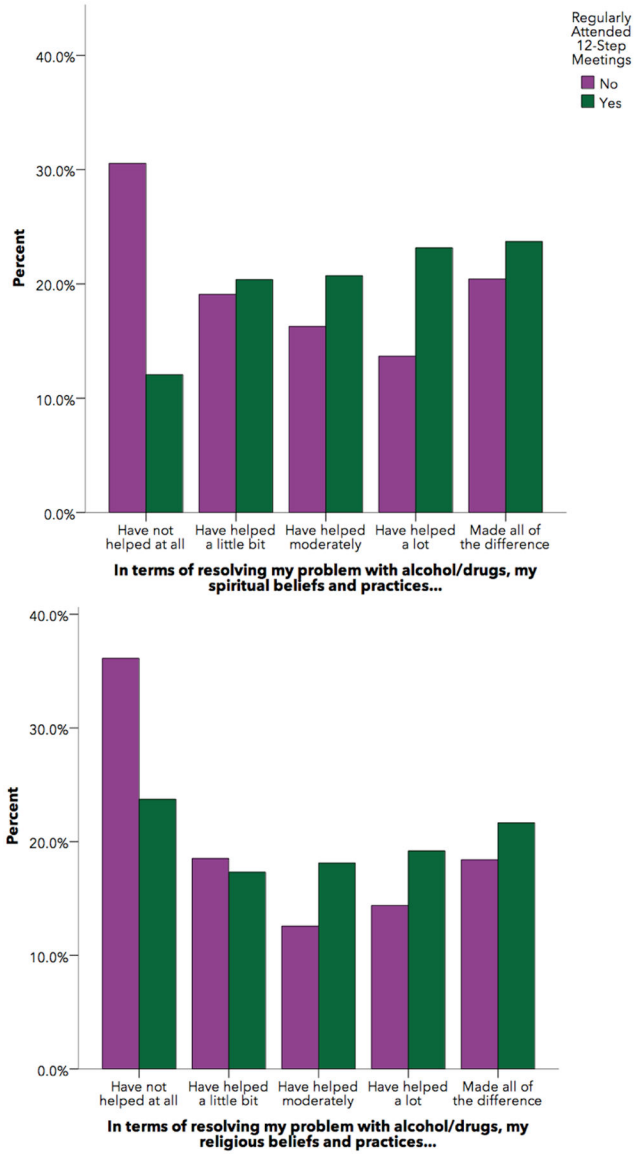

Figure 3:

Distribution of degree to which spirituality (top) and religiousness (bottom) helped participants overcome their problem with alcohol or other drugs among participants who did or did not regularly attend 12-Step meetings.

Table 1.

Sample demographics, participant spirituality and religiousness, and 12-step group participation.

	Weighted %	SE
Gender		
Female	40.0	1.53
Male	60.0	1.53
Age		
18–24 (emerging adulthood)	7.1	1.16
25–49 (young adults)	45.2	1.63
50–64 (mid-life stage adults)	34.7	1.43
65+(older adults)	13.0	0.76
Race and Ethnicity		
White, Non-Hispanic	61.4	1.64
Black, Non-Hispanic	13.8	1.19
Other, Non-Hispanic	5.8	0.92
Hispanic	17.3	1.38
2+ Races, Non-Hispanic	1.7	0.30
Spirituality		
Not spiritual at all	14.1	1.16
Slightly spiritual	26.0	1.48
Moderately spiritual	31.1	1.50
Very Spiritual	28.7	1.39
Religiousness		
Not religious at all	25.3	1.39
Slightly religious	26.7	1.46
Moderately religious	32.2	1.52
Very Religious	15.8	1.11
Degree to which spirituality helped participant overcome problem with alcohol and other drugs		
Have not helped at all	22.7	1.35
Have helped a little but	19.4	1.34
Have helped moderately	17.9	1.31
Have helped a lot	17.4	1.16
Made all the difference	21.6	1.28
Degree to which religiousness helped participant overcome problem with alcohol and other drugs		
Have not helped at all	31.0	1.47
Have helped a little but	18.0	1.30
Have helped moderately	14.8	1.20
Have helped a lot	16.3	1.18
Made all the difference	19.7	1.23
12-Step Group Attendance		
Alcoholics Anonymous (AA)	34.6	1.49
Narcotics Anonymous	17.5	1.23

	Weighted %	SE
Cocaine Anonymous (CA)	2.3	0.43
Crystal Methamphetamine Anonymous (CMA)	0.8	0.37
Marijuana Anonymous (MA)	0.9	0.43