

## Research Article

### 12-Step Recovery: Interpersonal and Spiritual Attachment

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#### Abstract

The prevalence of substance use is a growing concern in the United States and has long lasting effects on this population. There is a growing body of research concluding that Attachment Theory may offer some new insights into addiction and addiction recovery. Relationships throughout our lifetime affect our attachment styles and insecure attachment styles are a predictor for negative psychopathology and substance use; however, few researchers have investigated the correlation of secure attachment (interpersonal/spiritual) as a major contributor to long term sobriety. Individuals can develop more attachment security over time. This may be a prominent predictor for not only stabilization, but success in recovery from substance use. 12-step recovery programs may offer some insight into the process by which its participants learn to build attachment security through their fellowship and working the 12-step. The results of this study explore the correlations between participants in 12-step recovery, length of sobriety and attachment. As to be expected, length of sobriety was highly correlated with working the 12-step. Additionally, participants with longer lengths of sobriety showed more secure interpersonal and spiritual attachment than those participants with less sobriety.

**Keywords:** Attachment; 12-step; Substance use

#### Introduction

Substance use is a national epidemic and a significant public health concern for individuals, families and society in the United States [1,2]. Current evidence-based and community-centered

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interventions have been unsuccessful in addressing the causes of addiction [3]. The ultimate costs of untreated substance use disorder (SUD) can be staggering regarding loss of life and the financial burdens individuals and society incur. These consequences of SUD include crime, healthcare expenses, and lost work productivity, which totaled more than 400 billion dollars annually [4]. In addition, considering the nature of SUD treatment, which can sometimes require multiple treatments [5] and a recent report that documents only 10% of individuals with a SUD receiving treatment [4], the rippling effects of SUD can be felt by society.

Although a small percentage of individuals receive treatment, social relationships and 12-step recovery are essential factors for many people active in substance use recovery [6]. Scholars have documented the pivotal role 12-step recovery programs such as Alcoholics Anonymous (A.A.) play in sustaining individuals' desired goals. A. A. estimates that approximately 2 million people are involved in over 120,000 groups worldwide [7]. Relational connection and service to others are components of 12-step recovery, and social support may be one of the most important contributors to the effectiveness of AA [8]. Despite recognizing the interpersonal components of 12-step recovery, little research examines the influence of attachment and 12-step outcomes for long-term sobriety.

Attachment Theory (AT) researchers have investigated attachment-related challenges and substance abuse for a decade [9-11]. Prior researchers have found that insecure attachment is a robust predictor of substance abuse [3,9,12]. Moreover, insecure attachment styles reflect the lack of ability to regulate emotions and the lack of interpersonal communication skills [4]. Whereas numerous scholars documented the adverse health-related outcomes for individuals with insecure attachment styles [13], few have investigated the pliability of attachment and earned attachment security through community efforts (i.e., groups, 12-step programs) [14,15]. Therefore, attachment styles continue to be a promising area for research and treatment. Evidence for earned attachment security [14,15] led the researchers to investigate attachment security within 12-step recovery programs. Attachment plays a vital role in long-term recovery from substance use. The exploration of attachment styles, God-attachment, and social support in recovery from negative psychological symptoms, including substance abuse, offers evidence of the positive relationships for secure attachment [1,10]. Moreover, positive correlations between changes in attachment status and therapy outcome indicate that it is worthwhile for counselors and therapists to focus on attachment when planning interventions [9,16]. There is also ample evidence that secure attachment patterns and their positive effects on exploration, mentalization, and relationships can be protective factors against vulnerabilities toward substance abuse disorders [3,17]. In this vein, an attachment perspective shows promises to make treatment and prevention of substance abuse more efficient [1,18].

The 12-step program of addiction recovery is widespread, available in person or online platforms, and has shown merit in the advancement of addiction recovery [19,20]. There are several benefits for individuals who participate in twelve steps programs; some

benefits include support in spiritual awakening, longer periods of abstinence, increased social connection, and improved mental health well-being [19-21]. For people in recovery, 12-step support groups can be a helpful tool for increasing sobriety, quality of life and social support [2,5,19,20]. Twelve-steps work involves levels of self-disclosure, attending meetings, sponsorship and service [7]. These support groups may facilitate interpersonal and intrapersonal growth (i.e., attachment constructs). This study investigates the relationship between the length of sobriety, 12-step recovery and attachment. First, we will review the tenets of AT, discuss secure vs. insecure styles, and discuss attachment avoidance and anxiety. Next, we describe the social and interpersonal benefits of 12-step recovery, how attachment is related to addiction and recovery and the current study's results. Finally, we will discuss clinical implications related to attachment-based treatment and interventions for substance use.

## Method

### Procedure and Participants

Participants (N = 78) were recruited for this study from Alcoholics Anonymous (AA), Narcotics Anonymous (NA), or Celebrate Recovery (CR) program members in the Central Florida area. Participants' age ranged from 20 to 60 years old. Most (n=32) were between 20-30 years; next (n=25) were between 31-40 years; and lastly, (n=21) were between 41 and above. 38 participants identified as male, and 40 as female. Participants' length of sobriety ranged from 0 months to over 300 months: most (n=35) were 0-6 months sober; next (n=26) were 7-14 months, and 25 months or more (n=27).

A general announcement was made to the group attendees about the research, and interested volunteers were subsequently provided the surveys in person after the meeting. To participate in the survey, inclusion criteria included: (a) 18 or older, (b) in recovery from substance abuse, and (c) attending twelve-steps recovery meetings. Demographic information included: (a) age, (b) gender, (c) length of sobriety, and (d) if they have completed working the 12 steps at least once. Paper and pencil surveys were handed out to participants who met the inclusion criteria. Participants completed a questionnaire addressing sobriety length, 12-step participation, God attachment, and interpersonal attachment. The questionnaire included: Experiences in Close Relationships Scale [22] and the Attachment to God Scale [23].

## Data Analysis

### Research Question #1

**Did participants' working through all 12 steps of a 12-step program represent a robust, statistically significant predictor of length of sobriety?**

Simple linear regression was used to assess the predictive ability of study participants working through all 12-step statuses for subsequent lengths of sobriety represented in months. The results show that 15.19% of the variance in length of sobriety in months is explainable by completing a 12-Step Program. The "Yes" category 12-Step Program completion status was statistically significantly predictive of the length of sobriety represented in months ( $B = 52.58$ ,  $t(76) = 3.69$ ,  $p < 0.001$ ), indicating that moving from the "No" to "Yes" category of 12-Step Program completion status will increase the mean value of the length of sobriety in months by 52.58 units on average.

Table 1 is a summary of findings for the predictive model used to evaluate study participant completion of 12-Step program status for the subsequent length of sobriety represented in months.

Model	B	SE	95.00% CI	$\beta$	t	p
(Intercept)	7.84	8.69	[-9.47, 25.15]	0.00	0.90	0.370
12-Step Program Completion	52.58	14.25	[24.19, 80.96]	0.39	3.69	< 0.001

**Table 1:** Predictive summary table: 12-step program completion status predicting length of sobriety (represented in months).

### Research Question #2

**To what degree does participant subsequent AGI and ECR scale scores predict "Length of Sobriety"?**

Multiple Linear Regression (MLR) was used to assess the predictive abilities of the constructs of AG Avoidant, AG Anxiety, ECR Avoidant and ECR Anxiety for length of sobriety represented in months. The predictive model was statistically significant,  $F(4,71) = 3.51$ ,  $p = 0.01$ ,  $R^2 = 0.17$ , indicating 16.51% of the variance in length of sobriety represented in months is explainable by the confluence of the constructs of AG Avoidant, AG Anxiety, ECR Avoidant and ECR Anxiety. ECR Anxiety was statistically significant in predicting length of sobriety ( $B = -10.53$ ,  $t(71) = -2.02$ ,  $p = 0.047$ ), indicating that on average, a one-unit increase of ECR Anxiety will decrease the value of the length of sobriety in months by 10.53 units.

Table 2 summarizes the results of the regression model.

Model	B	SE	95.00% CI	$\beta$	t	p
(Intercept)	127.74	30.71	[66.50, 188.98]	0.00	4.16	< 0.001
AG Avoidant	-11.31	6.20	[-23.67, 1.05]	-0.20	-1.82	0.07*
AG Anxiety	0.32	7.18	[-14.01, 14.64]	0.01	0.04	0.97
ECR Avoidant	-8.21	5.79	[-19.77, 3.34]	-0.17	-1.42	0.16
ECR Anxiety	-10.53	5.22	[-20.93, -0.13]	-0.25	-2.02	0.047*

**Table 2:** Predictive summary model: Length of sobriety predicted by AG Avoidant, AG Anxiety, ECR Avoidant and ECR Anxiety.

### Research Question #3

**Do participant AGI and ECR "Attachment Security" values predict the likelihood of 12-step program completion?**

Binary logistic regression was used to predict the likelihood of study participant completion of a 12-Step Program using AGI and ECR attachment values as constructs. The overall predictive model was statistically significant ( $\chi^2(2) = 10.66$ ,  $p = 0.005$ ), indicating that the constructs of AGI and ECR attachment security exerted a statistically significant effect on the odds of completing a 12-Step Program. The effect of the AG Avoidance was statistically significant ( $B = -0.73$ ,  $OR = 0.48$ ,  $p = 0.004$ ) in predicting the likelihood of completing a 12-Step Program, indicating that a one-unit increase in AG Avoidance decreases the odds of completion of a 12-Step Program by approximately 51.79%.

Table 3 contains a summary of the predictive model used for the constructs of AG and ECR Avoidant in predicting the likelihood of completing a 12-Step program.

Model	B	S.E.	$\chi^2$	p	OR	95.00% CI
(Intercept)	1.24	0.96	1.69	0.19	-	-
AG Avoidant	-0.73	0.25	8.20	0.004**	0.48	[0.29, 0.79]
ECR Avoidant	0.20	0.19	1.19	0.28	1.23	[0.85, 1.77]

**Table 3: Predictive model summary table:** Constructs of AG Avoidant and ECR Avoidant predicting completion of a 12-step program.

#### Research Question #4

#### Does “Completion Status” of 12-step programming impact participant perception in the subscales of AGI “Avoidant”, AGI “Anxious”, ECR “Avoidant” and ECR “Anxious”?

A Multivariate Analysis of Variance (MANOVA) was used to assess the effect of 12-Step Program completion status upon the constructs of AG Avoidant, AG Anxiety, ECR Avoidant and ECR Anxiety. The main effect for 12-Step Program completion status was statistically significant ( $F(4, 71) = 3.33, p = 0.02, \eta^2 p = 0.16$ ), indicating that the linear combination of the constructs of AG Avoidant, AG Anxiety, ECR Avoidant, and ECR Anxiety was significantly different between the levels of 12-Step Program completion status.

Table 4 contains a summary of the finding for the MANOVA.

Variable	Pillai	F	df	Residual df	p	$\eta_p^2$
Completion_12_Step	0.16	3.33	4	71	0.02*	0.16

**Table 4: MANOVA summary table:** Constructs of AG Avoidant, AG Anxiety, ECR Avoidant and ECR anxiety by 12-step completion status.

\* $p < .05$

#### Follow-up post hoc analyses

Follow-up post hoc testing using univariate ANOVAs was conducted to determine the precise source of statistical significance identified in the omnibus MANOVA analysis. As a result, the construct of AG Avoidant represented the only construct reflecting a statistically significant effect by study participant’s 12-Step Program completion status.

#### AG avoidant finding

An Analysis of Variance (ANOVA) was conducted to evaluate the degree to which there were statistically significant differences in the construct of AG Avoidant by study participant’s 12-Step Program completion status. As a result, the finding was statistically significant ( $F(1, 76) = 9.60, p = 0.003$ ), indicating there were significant differences in AG Avoidant among the levels of 12-Step Program completion status (Table 5). The eta squared ( $\eta^2$ ) was 0.11, indicating 12-Step Program completion status explains 11% of the variance in the construct of AG Avoidant. The means and standard deviations of the ANOVA analysis are presented in table 6.

#### Discussion

This study examined the relationship between 12-step completion, attachment styles and sobriety length in individuals in recovery. The results suggest that a longer period of sobriety is associated with a greater degree of secure attachment. Specifically, participants that ranged from 0-6 months of sobriety were 45.7% securely attached, while those sober for 24 months or longer showed 70.6% securely

Model	S.S.	df	F	p	$\eta_p^2$
Completion Status 12-Step Program	11.42	1	9.60	0.003**	0.11
Residuals	90.45	76			

**Table 5: Analysis of variance summary table:** AG Avoidant by completion of 12-step program status.

Completion Status	M	SD	n
No	3.71	1.17	49
Yes	2.92	0.94	29

**Table 6: Mean, standard deviation, and sample size for AG Avoidant by completion of 12-step program status.**

attached. Participants who participated in their recovery program longer showed more security than those participants that were early in their recovery. Participants who were sober for 6-23 months were 42.0% securely attached - similar to the 0-6 month sobriety population. Early sobriety may be a transitioning period in attachment styles as participants learn to navigate new interpersonal relationships and new emotional regulation tools that have not yet been refined. As people continue in recovery, they may have ongoing opportunities to establish healthy relationships supporting recovery. Through sponsorships and peer relationships, 12-step group participation may improve attachment.

Attachment styles can take time to change. Even more so, beginning new relationships can create moments of vulnerability. Through the early stages of recovery, people are likely to be learning new effective coping strategies, what safe healthy relationships look like, and beginning to learn to trust themselves and others. In this sample, long term sobriety from substance abuse is associated with lowered anxiety and lowered avoidance within interpersonal relationships. These findings are consistent with a recent meta-analysis which indicates insecure attachment may be a vulnerability factor for substance use, but close relationship quality is a promising line of inquiry in research on substance use disorder risk [9].

While working through the 12 steps was associated with long-term sobriety, results from this study indicate that completing the 12 steps showed a significant correlation to a secure attachment to God. This finding is congruent with previous research suggesting that spirituality and long-term sobriety are correlated [8]. In most 12-step programs, there is a significant focus on the intervention of a higher power / God as a foundation for the process. The 12-step program completion was associated with a decrease in God attachment avoidance; 12-step completion did not evidence statistically significant correlations with ECR avoidance or anxiety.

Attachment style plays a vital role in the recovery process from substance abuse [10,17]. In the context of 12-step recovery groups, group leaders or sponsors may serve as a secure attachment figure for those in the recovery process [1]. AA literature emphasizes sponsorship as providing a confidential, long-term relationship. Sponsorship and peer relationships could facilitate healthy internal working models for those in recovery. A strong attachment-focused component in a multi-modal recovery intervention with clinicians, family members, sponsors, and other volunteers may provide additional internal resources for recovery [1]. Given that 12-step support groups operate

in nearly every community in the US and many around the world [7], it will provide an opportunity for researchers to examine the topic further. Community-based support is a cost-effective approach to providing practical support to individuals struggling with substance use. While 12-step programs present opportunities for researchers, research with the 12-step approach has some inherent challenges because each group is unique in its size, region, and participants, and many of the participants may be participating in other treatment programs simultaneously [8]. However, the social structure inherent in the 12-step approach - sponsors and group meetings - is a natural environment to integrate concepts of IWMs supported by recent research [24,25].

Our research reflected more secure attachments among those participants who had been sober for 24 months or longer than among those sober for a shorter time. Earlier in sobriety, attachment to God was more secure than interpersonal attachment was. Perhaps this is in part due to the early steps of AA focusing on God / higher power and self-evaluation. Because the God / higher power entity is not strictly defined by AA, there is the possibility that God / higher power may be construed as continuously available and supportive to the person in recovery. If this is the case, God may be the ultimate positive attachment figure for re-organization of IWMs. As with interpersonal relationships, if those pursuing recovery develop a sense of God / higher power as a reliable source of acceptance and strength, this may cultivate additional internal resources toward recovery-positive behavior. These increased internal resources may provide further support for navigating interpersonal relationships.

These implications have practical application. An attachment approach to recovery or a strong attachment component in a multi-modal recovery intervention with clinicians, family members, sponsors, and other volunteers may provide additional internal resources for those in recovery. Family relationships are often strained when a member has a substance use disorder, and family members may avoid connection or engage in unhealthy attachment behaviors as a consequence. Awareness and education in attachment positive behaviors may help both family members and individuals in recovery toward wellness both individually and within the family system. Persons in recovery who receive social support can better regulate emotion, make more effective decisions, and engage in more interpersonally effective behavior, reducing reactivity to the triggers to use substances. More effective coping and reduced substance use could create a greater openness to and resilience within interpersonal relationships. It is likely that the relationship between attachment and recovery is complex, not linear.

## Conclusion

Twelve-steps recovery programs have proliferated since the inception of AA. Even when persons with substance use disorders receive treatment in other modalities, 12-step groups are recommended as an adjunct to treatment. Twelve-steps programs encourage participants to entrust themselves to God / higher power and ultimately improve their contact with the higher power. Participants are also encouraged to repair relationships with those around them. In this study, working through all the 12 steps were associated with a longer length of sobriety as measured by the AGI, participants who completed the 12 steps displayed more secure / less avoidant God attachment. Furthermore, a longer length of sobriety was associated with more secure / less anxious and less avoidant interpersonal relationships as measured by

the ECR. The pattern of increased secure attachment associated with working through all 12 steps and with longer sobriety suggests that IWMs may be restructured into more healthy attachments through the connections formed in recovery groups through collaboratively working the 12 steps. Twelve-steps groups should continue to be recommended as appropriate for substance users to support recovery.

## Declaration of Conflicting Interests

The authors declare that they have no known conflicts of interest.

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