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## **Determining the Relative Importance of the Mechanisms of Behavior Change within Alcoholics**

### **Anonymous: A Multiple Mediator Analysis**

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## ABSTRACT

**Aims:** Evidence indicates AA participation reduces relapse risk but less is known about the mechanisms through which AA confers this benefit. Initial studies indicate self-efficacy, negative affect, adaptive social networks, and spiritual practices are mediators of this effect, but because these have been tested in isolation, their relative importance remains elusive. This study tested multiple mediators simultaneously to help determine the most influential pathways. **Design:** Prospective, statistically controlled, naturalistic investigation examined the extent to which purported mechanisms (i.e., self-efficacy, negative affect, social networks, and spirituality/religiosity) mediated the effect of AA attendance on alcohol outcomes controlling for baseline outcome values, mediators, treatment, and other confounders. **Setting:** Nine clinical sites within the United States. **Participants:** Adults (N=1,726) suffering from alcohol use disorder (AUD) with varying levels of severity initially enrolled in a randomized study with two arms: Aftercare (n=774); and Outpatient (n=952) comparing three outpatient treatments (Project MATCH). **Measurements:** AA attendance during treatment; mediators at 9 months; and, outcomes (Percent Days Abstinent [PDA] and Drinks per Drinking Day [DDD]) at 15 months. **Findings:** Among outpatients the effect of AA attendance on alcohol outcomes was explained primarily by adaptive social network changes and increases in social abstinence self-efficacy. Among more impaired aftercare patients, in addition to mediation through adaptive network changes and increases in social self-efficacy, AA lead to better outcomes through increasing spirituality/religiosity and by reducing negative affect. The degree to which mediators explained the relationship between AA and outcomes ranged from 43%-67%. **Conclusion:** AA facilitates recovery by mobilizing several processes simultaneously, including influential social change and spirituality/religiosity.

**Keywords:** Alcoholics Anonymous; social network; Spirituality; self-help groups; alcoholism; alcohol dependence; addiction; depression