

Alcoholic/Narcotic Anonymous Program Outcome: A Systematic Review

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ABSTRACT

Background: Recovery and long-term remission are the goals of treatment for substance use disorders. Though there are many pathways to recovery, alcoholic/ narcotic anonymous program is widely recommended for people with addiction as an adjunct to professional treatment services. However, not many studies reviewed the outcome resulted from alcoholic/ narcotic anonymous program. This study aimed to systematically review the outcome of alcoholic/ narcotic anonymous program.

Subjects and Method: This article was a systematic review study conducted by searching for articles from online databases such as EBSCO, Google Scholar, PubMed, and Science Direct. PICO: 1) Populations: alcohol addict or illegal drug abuser who is the member or ever joined the alcohol or narcotic anonymous program; 2) Intervention: alcohol or narcotic anonymous program; 3) Comparison: alcohol or narcotic addict or illegal drug abuser who is not the member or never join the alcohol or narcotic anonymous program or etc; 4) Outcome: variety of outcomes such as reduce of drinking. The dependent variable is the outcome of AA programs. The inclusion criteria for this study were full articles using an observational or experimental study, with the publication year from 2000 until 31st May 2023. The data extraction was focused on relationship between AA/NA program with the outcome resulted and reported following the Preferred Reporting Items for Systematic Reviews.

Results: A total of 9 articles reviewed in this study were from USA and UK. Six studies reported there is a significant relationship between attendance at the AA/ NA program with the increase of days of abstinence. Two studies explained that attending the AA/ NA program could lower the amount and frequency of illegal drug use. Only one study discussed that the AA/ NA program could also lessen the depression that addiction causes.

Conclusion: Our review suggested that attending the AA/ NA program has benefits such as abstinence, reduced frequency or amount of substance intake, and a reduction in depression or problems brought on by using illegal substances.

Keywords: abstinence, alcoholic anonymous, alcoholism, narcotic anonymous, outcome.

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BACKGROUND

Harmful alcohol and illegal drug use is defined as unhealthy alcohol or illegal drug such as narcotic that results in adverse physical, psychological, social, or societal consequences and is among the leading risk factors for

disease, disability and premature mortality globally (Greene et al., 2023). Alcohol use disorder (i.e. alcoholism) and using illegal drug are a concerning individual and public health problem worldwide especially in low- and middle-income countries (Kelly et al.,

2020). The annual report of the World Health Organization (WHO) in 2005 reveals that there are about 255 million people addicted to opiates worldwide (WHO, 2017).

Alcoholic/narcotic anonymous (AA/NA) is a widespread and free mutual-help fellowship that helps people to recover from alcoholism and to improve their quality of life (Kelly et al., 2020). Mutual support groups place an emphasis on experiential knowledge, inter-group collaboration, and can be facilitated by peers (White, 2010). Twelve-step programmes, such as Alcoholics Anonymous (A.A), Narcotics Anonymous, and Gamblers Anonymous, are the most widely used forms of mutual support (Schuller et al., 2016).

The 12-step recovery program uses in AA/ NA meeting is predicated on abstinence from the problem substance of abuse and to a lesser extent, from all substances of abuse. Twelve-step meetings are held throughout the community and are available 7 days a week, virtually 24 hours a day in large metropolitan areas (Laudet, 2008). Meetings are typically held in public venues including libraries or places of worship (Laudet, 2008). Laudet, (2008) also explained that, there are many type of program, usually they are more specific in substance, for example are Alcohol Anonymous, Marijuana Anonymous, Cocaine Anonymous, etc.

AA or NA program program help individuals develop greater awareness and acceptance through a variety of methods (stress and coping theory). It also provides key tools (e.g., serenity prayer and Hungry, Angry, Lonely, Tired that aimed to facilitate mindful recognition of different types of distressing subjective experience) (Marcovitz et al., 2020). Originally developed in the US, NA or AA groups operate in most countries. Meetings of members are informal, no membership list is held, and anonymity is a key to ensuring that members can

participate without fear of legal or social consequences (Hopwood & Treloar, 2013).

For decades, AA has often been dismissed as superstitious, backwards and lacking in evidence of effectiveness (Kelly & Abry, 2021). Dale et al., (2019), suggest that the effectiveness of AA/NA for Indigenous peoples is unclear because there is a lack of empirical knowledge on the acceptability and outcomes of addiction recovery mutual support groups for Indigenous peoples.

The current study systematically reviews the variety of outcome from NA/AA program such as abstinence, reduce in frequency, quantity, or any other related problem because of drinking, and other symptoms come from alcoholism and illegal drug user such as depression.

SUBJECTS AND METHOD

1. Study Design

This study uses a systematic review study design. The Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) standards were followed for conducting this systematic review (Hutton et al., 2015). Only English language-based literature was used in an electronic search of EBS-CO, PubMed, Google Scholar, and Science Direct from their establishment year 2000 until May 31, 2023. The search term used was (Alcohol Drinking) OR (Alcoholism) AND (Alcoholic Anonymous) AND (Narcotic) AND (Outcome) AND (Observational studies) AND (Clinical trials). Additionally, to find any pertinent studies, we manually examined the referenced articles of earlier review papers.

2. Inclusion Criteria

All studies were included if they met the following eligibility criteria: a) articles discussing about the outcome resulted from alcohol or narcotic anonymous program; b) primary studies including observational and experiment study; c) the subjects of research are

general population; d) and studies published in English only.

3. Exclusion Criteria

Case series, case reports, reviews study, editorials, and studies not meeting the inclusion criteria were excluded.

4. Study Extraction

Each manuscript was evaluated by looking at the journal in which it was published as well as its main characteristics. Table 1 provides a summary of this information.

5. Data Synthesis

The following element's purpose of study, study design, sample characteristics, and results were used to extract the results of each article's characteristics into a matrix (Table 1).

RESULTS

A total 811 articles were found after a preliminary search of the four electronic databases. All the articles were imported into Mendeley, and the results from the databases were merged, obtaining 317 articles. Using a duplicate removal tool (Mendeley), 494 duplicates were removed. Screening of the abstracts, remaining articles identified 65 unrelated articles. Of the remaining 12 articles, 9 studies met the inclusion criteria, and 3 studies were excluded. The findings of our literature search are summarized in Figure 1.

Study by Bond et al., (2003); Gossop et al., (2008); Muñoz & Tonigan, (2017); Timko et al., (2000); Tonigan et al., (2013), (2020) explained that, there is a significant relationship between attendance at program with the increase of days of abstinence. Gossop et al., (2003) and Karriker-Jaffe et al., (2018) suggested that people with addiction who received a 12-step recovery from AA or NA program can reduce their quantity and frequency of using illegal substance such alcohol or opiate. Furthermore, we only found 1 article discussed about the effect of AA or

NA program in reducing the depression from people with alcoholism (Wilcox & Tonigan, 2018).

DISCUSSION

In this review we discussed the effectiveness of AA and NA program in improving the outcome of substance use disorder. Based on the result, we obtain the most common outcome are abstinence, reducing in frequency or quantity of substance consumption, and the decrease of depression or problems caused by stated of drunkenness or stoned.

Majer et al., (2022) suggest that recovery capital among those involved with 12-step fellowships such as AA and NA should be assessed by examining abstinence -specific components such as representative involvement in 12-step groups and social support that is abstinence-specific. Meanwhile, Hystad & Wangenstein, (2022) stated that eventhough some of the participants in AA and NA continued to use substances in some way, some reported that such use did not affect them negatively and what is perceived as an actual relapse or a failed treatment outcome is highly subjective. In addition, complete sobriety might not necessarily be the best or the only way to measure the substance use disorder treatment. An improvement in the quality of life and well-being, even when core symptoms are still present, may be considered a successful treatment outcome.

The majority of AA and NA is an American phenomena. However, given that AA and NA is a truly worldwide organization and that its 12-step program has been widely adopted and adopted globally, it is possible to adapt and embrace AA and NA's 12-step program across cultural boundaries (Anonymous, 1955; Mäkelä et al., 1996).

Based on Krentzman et al., (2010), here's some implications for practice: 1) en-

hance motivation for recovery and help individuals to accept support: must want recovery and be willing to accept help from others; 2) expose individuals to aa and na; 3) hold 12-step program meetings at on-site treatment locations; 4) help individuals become socialized to the aa experience; 5) encourage participation during and directly after treatment; 6) encourage 12-step involvement, not just 12-step attendance; 7) encourage a minimum of three meetings a week; 8) become knowledgeable about the variety of mutual aid recovery groups in the community.

There have been several reviews about the same topic with this study, including (Kelly & Abry, 2021; Kelly et al., 2020),

however a those only limited to a significant substance which is alcohol.

Based on the results and discussion above, it can be concluded that abstinence, lowering frequency or amount of substance consumption, and a reduction of depression or troubles brought on by using substances that aren't legal are some benefit from attending the AA and NA program.

The usefulness of AA/NA for people in low- and middle-income nations is still unidentified nevertheless, as there is a shortage of empirical data on the acceptability and results of mutual support groups for addiction recovery. We advise the government to put more effort in advertising this service among those struggling with addiction.

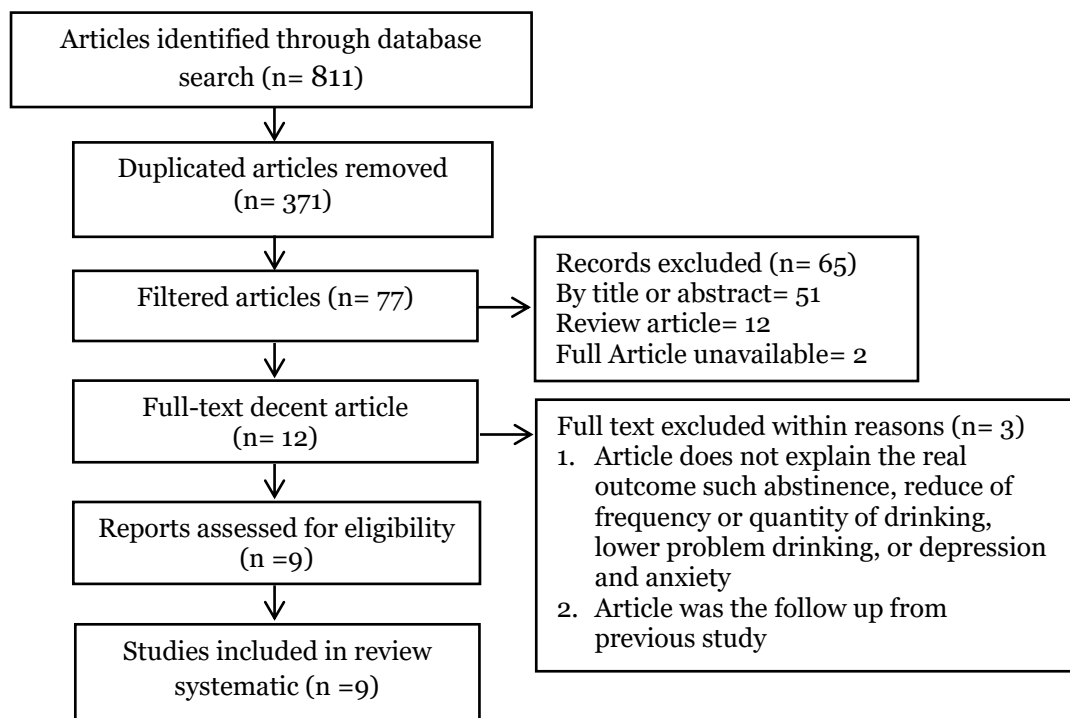


Figure 1. Results of Prisma Flow Diagrams

Table 1. Article Search Results

Author (Year)	Title	Method	Results	Conclusion
Bond et al., (2003)	The persistent influence of social networks and alcoholics anonymous on abstinence	A longitudinal, prospective cohort design	Abstinence after 90 days treatment (OR= 1.35; CI= 1.10-1.56; p= 0.01)	A involvement and the type of support received from AA members were consistent contributors to abstinence 3 years following a treatment episode
Gossop et al., (2003)	Is Attendance at Alcoholics Anonymous Meetings After Inpatient Treatment Related to Improved Outcomes? A 6-Month Follow-Up Study	A longitudinal, prospective cohort design	Frequency of drinking (Mean= 8.6; SD= 13.1; p< 0.05); Quantity of drinking (Mean= 6.0; SD= 8.6;p< 0.05); Number of alcohol problems at follow-up (Mean= 9.9; SD= 8.2;p= 0.78)	Significant improvements in drinking behaviours (frequency, quantity and reported problems), psychological problems and quality of life were reported.
Gossop et al., (2008)	Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: a 5-year follow-up study	A longitudinal, prospective cohort design	Abstinence from opiates was increased throughout the 5-year follow-up period compared to pre-treatment levels. There was no overall change in alcohol abstinence after treatment but clients who attended NA/AA were more likely to be abstinent from alcohol at all follow-up points	NA/AA can support and supplement residential addiction treatment as an aftercare resource
Karriker-Jaffe et al., (2018)	Effects of Treatment Type on Alcohol Consumption Partially Mediated by Alcoholics Anonymous Attendance	A longitudinal, prospective cohort design	Inpatient clients consumed less alcohol after treatment than outpatient clients (B [95% CI] = -0.95 [-1.67, -0.23])	AA involvement was a significant mediator of the relationship between treatment type and alcohol consumption, with inpatient clients being more involved in AA and also drinking less after treatment than outpatient clients

Munoz et al., (2017)	Alcoholics Anonymous-Related Benefit for Urban Native Americans: Does Urban Native American Gender Moderate AA Engagement and Outcomes?	Cross-sectional study	Proportion Abstinent Days for female participants after 90 days in AA (b = 0.27; p= 0.04), males (b = 0.96; p= 0.05).	Urban Native Americans significantly reduced their drinking over the study period, and AA attendance explained, in part, increased abstinence of study participants.
Timko et al., (2000)	Long-term outcomes of alcohol use disorders: comparing untreated individuals with those in alcoholics anonymous and formal treatment	A longitudinal, prospective cohort design	Abstinent for helped individuals (%= 55.4; $\chi^2=14.43$; $p<0.001$); Abstinent for untreated individuals (%= 28.8.4; $\chi^2= 14.43$; $p<0.001$). No drinking-related problems for helped individuals (%= 65.1; $\chi^2= 7.75$; $p<0.01$); No drinking-related problems for untreated individuals (%= 45.8.4; $\chi^2= 7.75$; $p<0.01$).	Individuals who obtain help for a drinking problem, especially relatively quickly, do somewhat better on drinking outcomes over 8 years than those who do not receive help
Tonigan et al., (2013)	Longitudinal Study of Urban American Indian 12-Step Attendance, Attrition, and Outcome	Longitudinal Study of Urban American Indian 12-Step Attendance, Attrition, and Outcome	Proportion Abstinent Days for American Indian participants after 90 days in AA (Mean = 0.83; SD= 0.27), non-Hispanic White (Mean = 0.77; SD= 0.33).	Community-based 12-step program attendance is associated with drinking reductions among urban American Indians
Tonigan et al., (2019)	Urban American Indian Adult Participation and Outcomes in Culturally Adapted and Mainstream Alcoholics Anonymous Meetings	Cross-sectionals	Proportion Abstinent Days at baseline (Mean= 0.58; SD= 0.29). Proportion Abstinent Days in AA program after 6 months (Mean= 0.86; SD= 0.15).	Alcoholic Anonymous attendance is the model approach and assists adults in reducing their drinking.
Wilcox et al., (2018)	Changes in depression mediate the effects of AA attendance on alcohol use outcomes	A longitudinal, prospective cohort design	Reductions in depression (6 months) mediated the effects of AA attendance (3 months) on later drinking (drinks per drinking day) (9 months) (b = -0.02, boot CI [-0.055, -0.0004])	Depression reduction is a mechanism by which AA attendance leads to reductions in alcohol use

AUTHORS CONTRIBUTION

Arief Wahyudi Jadmiko is the main author who select research topics, search for articles, process articles, and create publication manuscripts.

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CONFLICT OF INTEREST

There is no conflict of interest in this study.

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