

What Science Tells Us About Treatment of Addiction

A Response to a Recent "Debunking" of the 12-Step Program

Posted Apr 07, 2014

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[Online publication](#)

In a recent National Public Radio show on WBUR Radio Boston, Dr. Lance Dodes discussed his new book which attempts to debunk the science related to the effectiveness of 12-step mutual-help programs, such as Alcoholics Anonymous (AA), as well as 12-step professional treatment, claiming that these approaches are almost completely ineffective and even harmful in treating substance use disorders.

What he claims has very serious implications because hundreds of people are dying every day as a result of addiction and if the science really does demonstrate that the millions of people who attend AA and similar 12-step organizations each week are really deluding themselves as to any benefit they may be getting, then this surely should be stated loud and clear.

It turns out that rather than support Dr. Dodes' position, the science actually supports the exact opposite – AA and 12-step treatments are some of the most effective and cost-effective treatment approaches for addiction.

Substance use disorders are common, difficult to treat, costly to society, and highly stigmatized. And, indeed, because of the pain, trauma and heartache they cause in families due to loss of work, disruption in relationships, and death by overdose, suicide, or motor vehicle accidents, we are all invested in finding pathways to recovery.

It is baffling to us that Dr. Dodes would publicly undermine methods scientifically proven effective.

Why then, would anyone debunk care that works? Unfortunately, many treatments surrounding highly charged problems themselves are stigmatized and become easy targets for attack. People are desperate for help, and will seek whatever sounds appealing and hopeful, no matter how ill founded. And the best place to promote one's own agenda is to devalue other established means of care. We believe this is the agenda for Dr. Dodes.

In his book, *The Sober Truth: Debunking the Bad Science Behind 12-Step Programs and the Rehab Industry*, Dr. Dodes commits the same misguided offenses he condemns. His critique of the science behind treatment of addiction is deeply flawed, and his own model of approach to solve the "problem of addiction" ironically has no independent scientific proof of effectiveness, particularly in comparison to other methods of treatment.

However, we are not here to debunk Dr. Dodes. We want to address some of the pronouncements he made on the Radio Boston show and in his book in order to convey what informed and well-conducted science tells us about how to care for individuals and families who struggle with addiction.

Here is what he states, what he fails to mention and what is incorrect:

1. 12-Step programs do not work and are not backed by science.

Despite Dr. Dodes' claims that AA and 12-step treatments are largely ineffective and probably harmful, there is overwhelming evidence that AA and treatments that facilitate patients' engagement with groups like AA are among the most effective and best studied treatments for facilitating addictive behavior change. This conclusion is consistent with the view of prominent organizations such as the National Institute of Health (NIH), the Substance Abuse and Mental Health Services Administration (SAMHSA), the American Psychiatric Association (APA), and the Department of Veterans Affairs Health Care System (VAHCS), all of whom recommend patients' participate in AA or similar groups to aid recovery.

Dr. Dodes begins his criticism of AA and related treatment by citing a 1991 study conducted by Walsh and colleagues published in the prestigious *New England Journal of Medicine* (you can download the article for free nejm.org to see for yourself). In this paper the treatment of a large number of individuals with alcohol problems

were studied. Dr. Dodes noted in his book that compulsory inpatient treatment had the best outcome compared with AA alone. But what he failed to mention was that the inpatient unit was a 12-step based program with AA meetings during treatment, and requirements to attend AA meetings three times a week after discharge in the year following treatment. Importantly, too, when one compared the alcohol outcomes (average number of daily drinks, number of drinks per month, number of binges, and serious symptoms of alcohol use), AA alone was just as good as the AA-based inpatient treatment. Yet Dr. Dodes used this study to demonstrate that AA is poor while inpatient treatment is good - a bizarrely distorted as well as misleading and incorrect interpretation of the study's findings.

Dr. Dodes then cites a review article from another prestigious entity, the Cochrane Collaboration, to condemn AA and 12-step treatment. The Cochrane group is considered by health professionals to be the "gold standard" of good scientific procedure in its series of reviews. The article mentioned reviewed 8 studies from 1991-2004.

He concluded from this important paper, comparing AA and 12-step treatment to other approaches, such as cognitive-behavioral relapse prevention therapies, that it was ineffective. However, the study actually concluded that AA and 12-step treatment was shown to be as effective as anything else to which it was compared. For a look at this paper see www.onlinelibrary.wiley

Perhaps not surprisingly, given his agenda, Dr. Dodes doesn't acknowledge the more recent randomized controlled trials of addiction treatment (that is studies in which individuals with addictions were randomly assigned to different treatment approaches, comparing outcomes. See pubmed/19207347; pubmed/19309183; pubmed/19581057) These studies show that 12-step treatment improves outcomes by up to 20% for as long as two years post-treatment via its ability to engage patients in AA and that 12-step based treatments also tend to produce much higher rates of continuous abstinence via their ability to engage people with AA and its focus on abstinence.

Finally, in the largest randomized controlled study of treatment for alcohol use disorder ever undertaken (Project MATCH), which he does mention, he fails to state that compared to the cognitive-behavioral and motivational enhancement treatments included in that study, the 12-step treatment had more than double the number of patients who were continuously abstinent at 1 year after treatment and about one third more at 3 years after treatment.

2. No consideration of cost or access to care:

A couple of other points. Dr. Dodes fails to mention cost. Unlike psychoanalysis and other treatments, AA is free, and can be accessed almost anywhere at any time in the United States and many other countries (notably at high risk relapse times when professionals are not available like weekends, holidays, and evenings). In fact, studies published in prestigious peer-reviewed scientific journals have found that 12-step treatments that facilitate engagement with AA post-discharge can not only produce about one third higher continuous abstinence rates, but also 64% lower health care costs (see: pubmed/11371720) in doing so, compared to cognitive-behavioral treatments.

With the current pressure to configure a leaner and more cost-effective health care system, it is these kinds of double bonus effects that we are looking for. Twelve step treatment and AA appear to provide them.

So, the evidence indicates that 12-step programs actually do work and are readily available!

3. 12-step programs are no better than doing nothing.

But, in addition, Dr. Dodes then goes on to try and make the case that 12-step treatment for substance use disorder is no better than doing nothing; apparently implying that if we actually just stood back and waited for people with substance use disorder they would overcome addiction at the same rate as our current best efforts. Presumably, his own approach to addiction treatment would work best? Unfortunately, his own method promoted in the show and in his book has not a single scientific study to demonstrate its effectiveness.

4. 12-step programs are no more than "religious" efforts that reinforce powerlessness and helplessness

His book and comments are so far off the track of scientific research he doesn't realize that for the past several years the addiction research field has moved beyond asking whether AA and 12-step treatment works, to investigating how and why they work. We have now discovered that the reason why so often 12-step based interventions do better is that they engage people with groups like AA which increase people's ability to cope with

the demands of recovery, and foster critically important social network changes, within the communities in which they live every day. For some, AA also has been shown to work by increasing spirituality which helps people reframe and take a different viewpoint on stress, such that instead of being seen as a negative it becomes viewed as the fertilizer that fuels personal growth.

Dr. Dodes complains that AA's focus on admitting powerlessness over one's addiction is a step in seeking a "higher power" and he interprets this literally as seeking God. For some, this is true and helpful. For others, particularly those for whom spirituality is not appealing, it is seeking help from the AA fellowship (i.e., for some "GOD" can stand for "Group Of Drunks, or 'Good Orderly Direction'), and acknowledging that one cannot solve the problem alone; what Carl Jung called, "the protective wall of human community". Strength comes from assuming personal accountability and responsibility to a group, one's AA sponsor and, most importantly, to one's self. This process empowers individuals to make the changes.

5. Genetics do not play a role in addictions. They are not diseases.

Appearing in a blog on the Dodes webpage, there is an assertion that genetics have no role in addictions. This assertion once again contradicts scientific evidence. Research demonstrates that about half of the risk for addiction is conferred by genetics. But the environment is critical too. Like many diseases, the condition is caused by a personal biological vulnerability coupled with environment exposure and experiences.

6. Dr. Dodes makes false claims that have grave implications

In summary, while arrogantly claiming to "debunk the bad science behind 12-step programs" Dr. Dodes instead reveals an unsophisticated, selective, and superficial review of the research and shows himself to be either unable or unwilling to effectively critique the studies that he uses to support his own assertions. From a clinician who professes to care about individuals suffering from addiction, Dr. Dodes' conclusions are not only incorrect, they are irresponsible, reckless, and may have grave consequences.

For the families who have a loved one struggling with addiction, life is beyond tragic. Nights are sleepless while many wait for the proverbial shoe to drop. Will someone be killed by your son, daughter or spouse getting behind the wheel? Will you get the often-awaited call in the middle of the night that your child was found dead in her apartment? We know these stories. We hear them on the news daily.

What can we do to prevent the scourge of addiction? And what can we do when it appears in a family member. Surely, we all want a magic bullet. But we also want care that is based on sound scientific research and evidence-based treatments. There are no cures. But there is hope for recovery, sobriety, and, while not being cure-alls themselves, research demonstrates that AA and 12-step treatments are some of the most effective and cost-effective approaches to addressing chronic diseases of addiction in our society.

This blog was first posted on CommonHealth.org

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