Scientifically-informed recovery: what's new?

Harvard's first professor of addiction medicine, John Kelly, summarises rigorous studies by the scientific community on the clinical utility and cost offsets of mutual-help groups.

Six lessons from the past 15-20 years:

1) Substance use and related disorders are a massive health, social and economic burden
2) Mutual-help organisations help offset this burden and can be studied empirically
3) Mutual-help groups confer clinically-meaningful benefits for many different types of people over and above formal treatment
4) Mutual-help groups work through mechanisms similar to those in formal treatment
5) Mutual-help groups can reduce healthcare costs by reducing patients' reliance on professional services without detriment to, and might enhance, outcomes
6) Empirically-supported clinical interventions increase patient participation in mutual-help groups and enhance treatment outcomes.

Over the past 80 years, Alcoholics Anonymous has grown from two members to over 2million members. AA and similar organisations such as Narcotics Anonymous are among the most-sought sources of help for substance-related problems. But it is only relatively recently that the scientific community conducted rigorous studies on the clinical utility and healthcare cost-offset potential of mutual-help groups, and developed and tested professional treatments to facilitate their use.

Professionally delivered interventions designed to facilitate the use of AA and NA – Twelve-Step Facilitation – are now "empirically supported treatments" as defined by US federal agencies and the American Psychological Association. The World Health Organisation and the UK's NHS-guidance body NICE recommend their use. So let's look at six lessons learned during the past 15-20 years on how mutual-help organisations can help individuals suffering from substance use disorders (SUDs) while cutting healthcare costs.

Substance use and related disorders confer a massive health, social and economic burden.

Globally, alcohol kills 3.3 million people annually. It is the leading risk factor for death among males aged 15-59 and it is the third leading risk factor for disease burden around the world. In the US, alcohol use is the third-leading cause of preventable death and the financial impact of SUD is estimated to approach $600billion per year, stemming mostly from lost productivity, criminal justice and healthcare costs. In most developed nations, the societal response to these endemic public health problems has been multipronged, including prohibiting certain substances; attempts to reduce consumption through price controls, taxation and licensing of sales outlets (in the case of alcohol); federal, state and community prevention initiatives; and professional treatment. In addition to these considerable formal efforts, peer-led mutual-help organisations have flourished in most communities in the past 80 years, perhaps stemming from recognition at the grassroots level of the need for more flexible, rapidly accessible and ongoing support that can mitigate relapse risk at little to no cost.

Mutual-help organisations help offset this burden and can be studied empirically.

By far the largest and most researched of these peer-led mutual-help organisations is AA. Sophisticated scientific evidence supports the role of AA and similar groups in helping people to achieve abstinence and maintain recovery. We now have a strong evidence base in support of professionally delivered interventions (TSF) to effectively engage individuals with these community resources.

AA purports that the primary mechanism through which recovery from alcohol addiction is achieved is through a "spiritual awakening" which is realised by following a sequential 12-step programme. Such spiritual processes might seem antithetical to empirical study. But research over the past 20 years has shown that there are many aspects of AA and its mechanisms of action which are amenable to empirical study, including spirituality and spiritual practices.

About the author

John Kelly BS Psychology (Summa Cum Laude) PhD is Harvard University's first professor in addiction medicine, president of the American Psychological Association Society of Addiction Psychology and associate editor for the journals Addiction and the Journal of Substance Abuse Treatment. He is also founder and director of the Recovery Research Institute at Massachusetts General Hospital, programme director of the Addiction Recovery Management Service and associate director of the Center for Addiction Medicine at MGH.
He has served as a consultant to US federal agencies such as the White House Office of National Drug Control Policy, the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institutes of Health (NIH); to non-profits such as the Hazelden Betty Ford Foundation; and to foreign governments.
Dr Kelly has published over 100 peer-reviewed articles, reviews, and chapters in the field of addiction.

Studying AA empirically is not without its challenges, particularly in terms of the gold standard of treatment research: the randomised controlled trial. The tightly controlled and highly insulated context of an RCT runs counter to the way real-world AA groups are conducted. AA is attended anonymously, usually voluntarily. No records are kept about who attends and what is said. Groups vary widely in their size and content. Because AA is freely accessible in the community, it can seem unethical to randomly assign some RCT participants to attend and prohibit the attendance of others. These issues have led researchers to examine AA through other methods, such as through naturalistic, prospective, effectiveness studies which use sophisticated methods to account for self-selection biases (eg, statistical controls, propensity scores, instrumental variable analyses).

Researchers have also examined the efficacy of professionally delivered TSF treatments, which systematically encourage and facilitate 12-step meeting attendance, relative to other treatments that neither encourage nor forbid attendance. Together, these types of research show the benefits of AA attendance in a way that has both scientific integrity and real-world relevance.

Meaningful benefits for many different types of people, over and above formal treatment.

There have been hundreds of empirical studies on AA, summarised in several meta-analyses and one Cochrane review. These reviews indicate that AA is associated with a moderate effect on alcohol and other drug use that is on par with professional treatment. For some people, mutual-help group participation alone is an effective intervention for substance-use disorder.

Questions can arise as to whether AA is less suitable for certain groups of people, particularly dually diagnosed people, those taking psychotropic or anti-relapse medications, atheists or agnostics, women and youth. But the available empirical evidence suggests that, for the most part, such people benefit from participation in regular AA meetings. One exception might be people with severe impairments in psychosocial functioning and reality testing – such as SUD with schizophrenia – who might benefit more from dual-diagnosis mutual-help groups such as Double Trouble in Recovery. Similarly, although young people can benefit from attendance at AA and NA meetings, benefits can be enhanced at meetings with at least some same-aged peers.

Mutual-help groups work through mechanisms similar to those in formal treatment.

Over 20 years ago, the Institute of Medicine called for more research on how AA works. A recent review of the research on the mechanisms of change in AA revealed that AA helps people to attain and maintain recovery through multiple mechanisms, many of which are also activated by formal treatment. Most consistently and strongly, AA appears to work through mobilising adaptive changes in the social networks of attendees – for instance, decreasing pro-drinking social ties and increasing pro-abstinence social ties – and enhancing coping skills and self efficacy for abstinence in high-risk social situations.

ADDICTION

RECOVERY

By the end of this presentation at Recovery Plus, delegates were able to:

1) list the main research findings on addiction and mutual-aid recovery groups
2) cite/forward relevant research references
3) identify the clinical components shown to yield optimum outcomes
4) be able to apply approaches described in the presentation to your own practice, in a practical way.

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DB

Among more severely alcohol-impaired people, AA also appears to work by enhancing spiritual/religious practices, reducing depression and increasing peoples' confidence in their ability to cope with negative affect. Thus, AA appears to work through diverse mechanisms and might work differently for different people.

Mutual-help group participation can reduce healthcare costs and could enhance outcomes.

Substance dependence is recognised as a chronic, relapsing condition which typically requires multiple episodes of care over long periods of time. Sadly, individuals' access to professional healthcare resources is often limited to short periods of time by insufficient funds. In the US and UK, government policies have an ever-increasing impetus to reduce healthcare costs and create a more cost-effective system. Mutual-help groups are a crucial adjunct to professional treatment, as they can be attended for as long as necessary at no cost except for voluntary contributions.

Not only are 12-step organisations self-supporting and inexpensive to attend, but research shows that involvement in 12-step organisations can reduce the need for more costly professional treatments – while improving outcomes.

One study found that people who attended only AA had overall treatment costs substantially lower than people in outpatient treatment, at no detriment to their substance use outcomes and despite experiencing more drinking-related consequences at the start of the study. Similarly, a large prospective study of over 1,700 substance-dependent males found that those in professional 12-step treatment participated in community-based AA and NA meetings much more after treatment than those from professional cognitive behavioural therapy treatment programmes, who relied more heavily on professional services. This translated into a two-year saving of over $7,000 per patient, again without compromising abstinence rates. In fact, patients treated in the 12-step programmes had one-third higher rates of abstinence than those treated in the CBT programmes at two-year follow-up (demographic and clinical severity indicators were equivalent at baseline).

Clinical interventions can grow participation in mutual-help groups and enhance outcomes.

Since AA and related organisations appear to be effective and cost-effective recovery resources, the question arises as to how clinicians can best facilitate their patients' engagement with them. Many SUD counsellors report that they refer their patients to 12-step meetings, but the degree to which they provide facilitation efforts beyond a simple referral is unclear. Growing research on TSF interventions suggests that taking a more intensive and proactively encouraging approach to facilitating attendance can be beneficial for patients. Clinicians monitor and discuss patients' reactions to meetings and explore reasons for nonattendance.

TSF can be delivered in many formats, including as a standalone treatment, brief intervention or part of another treatment. Studies show that clinicians using these more intensive facilitation efforts can substantially increase the likelihood that patients will become and stay involved in these organisations. One early study found that, when therapists actively linked patients with current 12-step group members by having them speak over the phone during a session and make arrangements to attend a meeting, every patient attended at least one meeting in the month after referral. In contrast, when patients were simply given information and encouraged to attend, not one person did.

In Project Match, participants in TSF treatment attended AA at a significantly higher rate than those in the CBT and motivational enhancement therapy conditions in treatment and during the first three months of follow-up. Another RCT compared standard 12-step referral, in which patients were given a schedule of meetings and encouraged to attend, to intensive referral, which included directly linking the patient with a current AA/NA member and addressing patient concerns about attendance. At six-month follow-up, those in the intensive referral condition became more involved in several aspects of the 12-step programme. For example, they were more likely to have a sponsor.

Importantly, studies have shown that TSF has a positive impact on patients' substance use outcomes. In Project Match, for example, TSF was as effective as more empirically supported CBT and MET at reducing alcohol use post-treatment and at one-year follow-up – and more effective at the three-year follow-up. Moreover, TSF was superior to CBT and MET at increasing rates of continuous abstinence. Similar findings have been demonstrated in several other RCTs using various forms of TSF. These studies consistently show that TSF interventions produce outcomes superior to control conditions. As a result of this growing empirical support, TSF was recently recognised as a "well supported treatment" by the Division of Clinical Psychology of the American Psychological Association and added to SAMHSA's National Registry of Evidence-Based Practices and Programmes in 2008.

Where the research is now.

The often-passionate debate about the pros and cons of mutual-help organisations seldom references the accumulating body of scientific literature amassed over the past 25 years. This "empirical awakening" and related science base supports the effectiveness of 12-step mutual-help organisations and the efficacy of TSF interventions for reducing substance-related problems. Other non-12-step mutual-help groups such as Smart might provide similar benefits, but await more extensive empirical study. The chief strength of community mutual-help organisations might lie in their ability to provide effective, easily accessible, free, long-term recovery support which is responsive to undulating relapse risk. As we move to improve quality and healthcare efficiency and effectiveness, awareness of the important role mutual-help organisations and related professional interventions can play in a recovery-oriented system of care will enhance the proficiency of our overall response to the burden imposed by substance-related harms.