

Addictions Mutual Aid in the UK – an overview of the evidence

By Richard Phillips. With commentaries by John F. Kelly, PhD. and William White.

Introduction

Over the last few years, UK government policy has focussed on increasing the proportion of people with addictions who exit the treatment system and sustain abstinent treatment goals. (1)(2)(3)

There is an emerging consensus that engagement with Mutual Aid will improve recovery outcomes and that treatment services should do more to introduce service users to this form of support. (4)(5)(6)(7)(8)

In this review, we are particularly concerned with the evidence base for those Mutual Aid organisations that have a strong presence in the UK and are mentioned explicitly by NICE when defining Mutual Aid: Alcoholics Anonymous (AA), Narcotics Anonymous (NA) and SMART Recovery. (5)

The vast majority of peer reviewed studies into Mutual Aid are from the USA and focus specifically on AA. There are a smaller number of studies into NA and a handful about SMART Recovery. Studies reported here are from the USA and based on the study of AA unless otherwise stated.

It cannot readily be assumed that these research findings will generalise to AA in the UK, to other substances of dependence, to other 12 step fellowships and to none 12 step groups such as SMART Recovery. This document considers whether the nature and extent of evidence suggests the findings are *likely* to generalise, whether Mutual Aid will improve recovery outcomes for people in the UK context. Some of the significant methodological challenges inherent in this task are described in Appendix A.

What is Mutual Aid?

Mutual Aid is the process of giving and receiving non-clinical and non-professional help to achieve long-term recovery from addiction. (9) Mutual Aid groups are composed of people who share the same problem, give and receive support as part of the group, are organised by members, value experiential knowledge and charge no fees. (10) Mutual Aid is usually considered to be a distinct activity from informal peer support and 'Recovery Community Organisations'. (11)

Does engagement with mutual aid improve recovery outcomes?

There is strong evidence that attendance at Mutual Aid, including NA, is associated with improved recovery outcomes; (12) there is evidence that this relationship is causal (13)(14)(15) and there is emerging evidence for the effectiveness of SMART Recovery. (16)

There is strong evidence, emerging in the UK,(17)(18) that engaging with both treatment and Mutual Aid results in better outcomes than either alone. (19)(20)(21)(22)(23) For some people, probably those with less serious problems, there is evidence that Mutual Aid alone may be sufficient. (22)

Can professionals increase engagement with Mutual Aid?

There is strong evidence that treatment professionals can improve engagement with Mutual Aid, including NA (24)(25)(26)(27) and emerging evidence for SMART Recovery (28). There is emerging evidence that 'information only' based approaches are insufficient and that a more structured and assertive approach is needed. (27)

There is emerging evidence that *coerced* attendance at Mutual Aid is counter-productive, with worse outcomes than treatment as usual. (29)

There is emerging evidence that engaging clients with Mutual Aid reduces addiction treatment and other healthcare costs. (23)

Activity by generic drug and alcohol professionals to engage service users with mutual aid during key-work sessions is described in England as 'Facilitating Access to Mutual Aid' (FAMA). (30)

Professionally delivered structured treatment interventions based on Mutual Aid are collectively described as 'Mutual Aid Facilitation' and include 'Twelve Step Facilitation' (TSF) and programmes based on SMART Recovery such as 'Inside Out'.

There is evidence to support TSF, a structured treatment intervention that has engagement with Mutual Aid as a goal, (31) with outcomes similar to other forms of structured treatment and some evidence of better outcomes for people with low psychiatric morbidity. (32) The evidence for TSF is not however unequivocal. (33)

There is emerging evidence to support professionally delivered interventions based on SMART Recovery, including in criminal justice settings (34) and for people with dual diagnosis. (35)

How does Mutual Aid work?

Research has increasingly applied mediational analysis and other research methods to identify the underlying mechanisms of effect or 'active ingredients' of Mutual Aid. This work is helpful to our understanding of whether outcome effects will generalise outside the US, to different populations and to Mutual Aid groups other than the highly studied AA. It is also worth noting that research into Mutual Aid extends far beyond the field of addictions, (36), raising the possibility that there may be common mechanisms at work.

There is strong evidence that wider 'abstinent social networks' improve recovery outcomes and ongoing association with people engaged with addiction is highly predictive of poor outcomes. (37)(38)(39)(32)(40) There is strong evidence that engagement with Mutual Aid, including NA, improves 'abstinent' social networks and evidence that this is a key mechanism of effect. (41)(42)(43)(44)(45)(46)

This picture is consistent with an extensive evidence base from outside of the field of addictions that social networks are critically important to a wide range of health and wellbeing outcomes. (47)(48)

There is emerging evidence that the importance of social networks on recovery is greater than that which can be offered by Mutual Aid, (49) suggesting that such groups may be very useful but represent only *part* of the answer to social isolation for people in recovery.

There is strong evidence that addiction Mutual Aid works in part on similar change processes to professionally led treatment, including social learning, coping skills, motivation and self-efficacy. (50)(51)(52)(51)

There is strong evidence that the cognitive behavioural therapy and therapeutic lifestyle change tools used within SMART Recovery are effective when used within professionally delivered programmes (53)(54)(55)(56) and emerging evidence for use within SMART Recovery. (16)

There is emerging evidence that spiritual change and reduced negative affect is a mechanism of change for 12-step Mutual Aid, particularly for people with greatest problem severity, though this is overall of less importance than the impact of improved social networks. (13)(45)(57)

There is emerging evidence that the tradition of 'service' and helping others is a mechanism of effect for Mutual Aid. (58) Research into AA and NA suggests that *being* a sponsor improves recovery outcomes for the sponsor themselves (40) and there is evidence, (42)(59)(60) some conflicting, (40) that *having* a sponsor improves recovery outcomes.

There is a wider evidence base, from outside of addictions, that 'giving back to others' will improve wellbeing and life satisfaction (47) and it is highly plausible that this is an 'active ingredient' underpinning the effectiveness of a diverse range of approaches mutual aid.

There is emerging evidence that the use of self-study materials, as encouraged by most Mutual Aid groups, is likely to be beneficial. (61)(62)

Do different Mutual Aid groups suit different people?

There is emerging UK evidence that some individuals have strong preferences for particular Mutual Aid groups after exposure to several alternatives. (28) There is emerging evidence that people in different programs have different psychological characteristics, (63) probably as a result of choosing a program with a closer fit to their outlook.

As the 12-step Fellowships have religious origins (64) and are considered religious in nature by the US legal system, (65)(66)(67) it is relevant to consider the impact of religious belief.

There is emerging evidence of benefit from 12-step Mutual Aid *irrespective* of the individual's belief in god. (68) On the other hand, there is also evidence that lower religiosity is associated with poorer initiation, attendance and active participation with 12-step groups compared to secular programs. (68)(69)(63)(70) This is at least suggestive that a close match between individual beliefs and the group ethos *may* improve recovery outcomes.

It is highly likely that Mutual Aid groups adapt to local cultural contexts, so the style and focus of meetings in the highly religious USA (71) may differ from Sweden where most members are agnostic or atheist. (72) In the USA, secular Mutual Aid groups such as Lifering and SMART Recovery appear to be *particularly* attractive to agnostics and atheists, (69) but it cannot be assumed that this pattern will repeat in the UK, where 12-Step groups are likely to have already adjusted to local cultural needs.

Key Conclusions and discussion

Although there is an extensive body of research into Mutual Aid, most studies are methodologically weak, typically describing correlations without the ability to infer causation (see Appendix A). This has led some commentators to conclude that there is little or no evidence for this form of support. We conclude that this is an out-dated position. The increasing numbers of higher quality studies, along with extensive corroborative research supports more robust conclusions.

There is strong evidence that participation in Mutual Aid groups improves recovery outcomes and evidence that greater levels of participation are associated with better outcomes.

There is strong evidence that ‘abstinence supportive’ social networks are critical to recovery and evidence that the ability of Mutual Aid to improve such networks is a key mechanism of effect for these groups. The ability of Mutual Aid to build abstinent social network is an important advantage over treatment services and Mutual Aid is able to confer this benefit for many years after the end of an episode of treatment.

Other key mechanisms of effect are likely to be similar to those for treatment services, such as coping skills, motivation and self-efficacy.

There is strong evidence that treatment services can and should improve engagement of their service users with Mutual Aid and the evidence is consistent with the ‘Facilitating Access to Mutual Aid’ model developed by Public Health England. There are strong grounds to believe that this approach will improve treatment outcomes and save health and treatment costs.

For *most* people who currently approach treatment services, Mutual Aid is not an effective replacement for treatment and the combination of treatment plus Mutual Aid is likely to be better than either alone.

It is appropriate to be concerned that Mutual Aid might become seen as way to *replace* necessary professional treatment with a free alternative. This would be misguided, dangerous and do a great disservice to the Mutual Aid organisations.

There is emerging evidence that coerced attendance is counter-productive, leading to worse outcomes than treatment as usual. Policy makers should be cautious about mass coercion through the criminal justice system and keep in mind that such strategies in the USA are driven by a lower availability of treatment rather than evidence of effectiveness.

There is emerging evidence that an increased range of options in Mutual Aid will improve recovery outcomes by enabling a closer match between group ethos and individual values. This evidence is not strong enough to recommend ‘matching’ individuals based on their beliefs. Prominent researchers have wisely argued for the availability of a diverse array of mutual-help options, (73) suggesting that individuals try different groups and find one where they feel most able to be actively involved.

It is highly plausible that the evidence described in this report will generalise to the UK and apply to a range of 12-step and none 12-step Mutual Aid groups. It is plausible that many of these findings will also apply to other forms of peer support and recovery communities.

Recommendations ¹

The following recommendations derive from the analysis of this report; though also borrow from an important working group consensus statement. (74)

1. Treatment services should use robust Mutual Aid group referral methods, such as the FAMA framework produced by Public Health England.
2. Treatment services should encourage service users to try different models of Mutual Aid and find what works for them.
3. Treatment services should adopt the principle of 'information parity', so service users are informed about *all* the Mutual Aid options available.
4. Commissioners and treatment services should expand choice and access to Mutual Aid in the criminal justice system, supported housing and other intervention settings.
5. Commissioners should consider how treatment services can be incentivised to improve service user engagement with Mutual Aid.
6. Commissioners should also consider how to encourage referrals to Mutual Aid in generic health care settings, especially primary care.
7. Commissioners should be discouraged from using Mutual Aid as a replacement for specialist treatment services.
8. Commissioners and treatment services should support opportunities for family members of people struggling with addictions to be involved in Mutual Aid.

There are significant deficits in the evidence base. Further research is particularly urgent on the following questions:

1. The effectiveness of FAMA interventions in the UK context.
2. The relative efficacy or appropriateness of structured Mutual Aid Facilitation in the UK context and compared to more simple FAMA interventions.
3. Exploration of matching effects, whether certain client characteristics are associated with better outcomes through different mutual aid programmes.

¹ **Acknowledgements:** Considerable thanks for comments, feedback and suggestions on key papers to consider for inclusion in this review are due to Keith Humphreys, William White, John Kelly and Tim Leighton. See Appendix B for commentaries from Kelly and White.

Declared interests: The author, Richard Phillips is currently the Director of SMART Recovery UK. rphillips@smartrecovery.org.uk

Copyright statement: You are free to distribute this document as you wish, as long as it remains unchanged. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. [Click to view terms.](#)

Publication date: 26 April 2014

Appendix A - Methodological approach, challenges and caveats

This review aims to use consistent language to communicate the strength of evidence, with 'strong' evidence referring to multiple well-constructed studies, 'evidence' referring to one or two strong studies and 'emerging evidence' to promising though less methodologically robust studies or a larger number of corroborative data points including grey literature.

This is not a systematic review and was not based on pre-defined search terms. In many cases, the studies quoted are as recommended by key experts as simply the strongest examples work in a given area.

There are methodological challenges that make this exercise more complicated than simply providing a summary of existing systematic reviews.

It is not possible to construct randomized controlled trials (RCT) to test the effectiveness of Mutual Aid within naturalistic, real world settings, because participation is self-initiated, most groups are anonymous and it is not practicable to create a control group. In practice, most RCT's looking at Mutual Aid examines professionally facilitated interventions, such as Twelve Step Facilitation (TSF) rather than Mutual Aid itself.

This has created difficulties in conducting and understanding systematic reviews, which tend to put the RCT at the apex of the evidence hierarchy. For example a Cochrane review into the effectiveness of "AA and other twelve step programmes" found only eight studies for inclusion, all of which were *actually* about professionally initiated interventions to engage people with mutual aid. (33) The only Cochrane review in this area may thus contribute something to our understanding of professional interventions based on Mutual Aid, but is fundamentally silent on the efficacy of Mutual Aid itself.(75)

There are high-quality Randomized Controlled Trials relevant to *some* of the questions in this review, but elsewhere, other forms of research methodology are more appropriate and scientifically robust. It is important not to interpret the lack of an RCT as a lack of evidence or rigour. This observation is not novel and a number of prominent addictions researchers have urged consideration of a wider range of research methodologies (76)(77)(78) and concluded that mutual aid can indeed be studied scientifically. (79)

Appendix B – Commentaries

William White

Richard Phillips has provided a valuable service in reviewing the scientific studies on the effects of participation in addiction recovery mutual aid organizations and discussing these findings within a UK context. Scientific support for recovery mutual aid has increased in tandem with the number, scope and methodological rigor of recent studies.

The findings and recommendations in the Phillips review are of great import given the international growth and increased diversification of secular, spiritual and religious recovery mutual aid organizations and the emergence of new recovery community support institutions, e.g., recovery advocacy and support organisations / centres / residences / schools / cafes, etc.

Hopefully, this review will spark discussions about how professional and mutual aid interventions can best be combined and sequenced in the UK to support people through the stages of recovery: pre-recovery, recovery initiation and stabilisation, recovery maintenance, enhanced quality of personal and family life in long-term recovery and efforts to break intergenerational cycles of addiction.

Recovery mutual aid organizations offer viable support for intrapersonal processes of addiction recovery and their expansion within local communities contributes to the social space within which recovery can flourish. Historically, studies of addiction recovery mutual aid organisations are moving from a focus on what they can delete from one's life to a focus on what they can also add to one's life.

William L. White, MA, is Emeritus Senior Research Consultant, Chestnut Health Systems

John Kelly

This is a concise and thorough summary of the evidence on mutual aid organizations as they relate to addiction treatment and recovery. The review is notable in that it includes the most rigorous scientific studies completed during the past 10 years that have examined the efficacy, effectiveness, health care cost offset potential, and mechanisms, of mutual aid organizations and related professional interventions designed specifically to stimulate mutual aid engagement. Given the prodigious burden of disease, disability, and premature mortality associated with alcohol and other drug use and related problems in the United Kingdom, and the expense of providing purely professional services to sustain remission, this focus on freely available and widespread mutual aid resources is sensible and timely. The quantity and quality of evidence supporting recovery mutual aid participation indicates broader support and implementation of mutual aid is likely to have a beneficial national impact on clinical outcomes, and public health and safety.

John F. Kelly, PhD, is the Elizabeth R. Spallin Associate Professor of Psychiatry in Addiction Medicine, Harvard Medical School; Director Recovery Research Institute, Massachusetts General Hospital.

Appendix C - References

1. HMSO. Drug strategy 2010 reducing Demand, restricting Supply, Building recovery: Supporting people to live a Drug Free life [Internet]. HMSO; 2010 [cited 2013 Oct 28]. Available from: <https://www.gov.uk/government/publications/drug-strategy-2010--2>
2. The Road to Recovery - A new approach to tackling Scotland's drug problem [Internet]. The Scottish Government; 2008. Available from: <http://goo.gl/JK7jtv>
3. Substance Misuse Treatment Framework Recovery Oriented Integrated Systems of Care [Internet]. Welsh Government; 2013. Available from: <http://goo.gl/yZAI8>
4. Strang et. al. Medications in recovery - re-orientating drug dependence treatment [Internet]. National Treatment Agency for Substance Misuse; 2012. Available from: <http://goo.gl/ApFmju>
5. NICE. Quality Standard for drug use disorders [Internet]. NICE; 2012. Available from: <http://goo.gl/gc5Wu5>
6. NICE. Alcohol dependence and harmful alcohol use [Internet]. NICE. 2011. Available from: <http://goo.gl/EnGsj>
7. NICE. Services for the identification and treatment of hazardous drinking, harmful drinking and alcohol dependence in children, young people and adults - Commissioning Guide [Internet]. NICE. 2011. Available from: <http://goo.gl/KVnCoF>
8. A briefing on the evidence-based drug and alcohol treatment guidance recommendations on mutual aid [Internet]. Public Health England; 2013. Available from: <http://goo.gl/5BpTrx>
9. Faces and Voices of Recovery [Internet]. Available from: <http://goo.gl/NjVeib>
10. Humphreys K. Circles of recovery: self-help organizations for addictions. Cambridge: Cambridge University Press; 2011.
11. William W, Vallentine P, Taylor P. The Recovery Community Organization: Toward A Working Definition and Description [Internet]. Available from: <http://goo.gl/pDCKzY>
12. Toumbourou JW, Hamilton M, U'Ren A, Stevens-Jones P, Storey G. Narcotics Anonymous participation and changes in substance use and social support. *J Subst Abuse Treat.* 2002 Jul;23(1):61–6.
13. Kelly JF, Stout RL, Magill M, Tonigan JS, Pagano ME. Mechanisms of behavior change in alcoholics anonymous: does Alcoholics Anonymous lead to better alcohol use outcomes by reducing depression symptoms? *Addiction.* 2010;105(4):626–36.
14. Moos RH, Moos BS. Participation in Treatment and Alcoholics Anonymous: A 16-Year Follow-Up of Initially Untreated Individuals. *J Clin Psychol.* 2006 Jun;62(6):735–50.
15. Timko C, Moos RH, Finney JW, Lesar MD. Long-term outcomes of alcohol use disorders: comparing untreated individuals with those in alcoholics anonymous and formal treatment. *J Stud Alcohol.* 2000 Jul;61(4):529–40.

16. Hester RK, Lenberg KL, Campbell W, Delaney HD. Overcoming Addictions, a Web-Based Application, and SMART Recovery, an Online and In-Person Mutual Help Group for Problem Drinkers, Part I: Three-Month Outcomes of a Randomized Controlled Trial. *J Med Internet Res* [Internet]. 2013 Jul 11 [cited 2013 Dec 7];15(7). Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3713880/>
17. Gossop M, Harris J, Best D, Man L-H, Manning V, Marshall J, et al. Is Attendance at Alcoholics Anonymous Meetings After Inpatient Treatment Related to Improved Outcomes? a 6-Month Follow-up Study. *Alcohol Alcohol*. 2003 Sep 1;38(5):421–6.
18. Gossop M, Stewart D, Marsden J. Attendance at Narcotics Anonymous and Alcoholics Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: a 5-year follow-up study. *Addict Abingdon Engl*. 2008 Jan;103(1):19–25.
19. Moos RH, Moos BS. Paths of entry into alcoholics anonymous: consequences for participation and remission. *Alcohol Clin Exp Res*. 2005 Oct;29(10):1858–68.
20. Fiorentine R. After drug treatment: are 12-step programs effective in maintaining abstinence? *Am J Drug Alcohol Abuse*. 1999 Feb;25(1):93–116.
21. Fiorentine R, Hillhouse MP. Drug treatment and 12-step program participation: the additive effects of integrated recovery activities. *J Subst Abuse Treat*. 2000 Jan;18(1):65–74.
22. Walsh DC, Hingson RW, Merrigan DM, Levenson SM, Cupples LA, Heeren T, et al. A randomized trial of treatment options for alcohol-abusing workers. *N Engl J Med*. 1991 Sep 12;325(11):775–82.
23. Humphreys K, Moos RH. Encouraging posttreatment self-help group involvement to reduce demand for continuing care services: two-year clinical and utilization outcomes. *Alcohol Clin Exp Res*. 2007 Jan;31(1):64–8.
24. Timko C, DeBenedetti A, Billow R. Intensive referral to 12-Step self-help groups and 6-month substance use disorder outcomes. *Addict Abingdon Engl*. 2006 May;101(5):678–88.
25. Timko C, DeBenedetti A. A randomized controlled trial of intensive referral to 12-step self-help groups: one-year outcomes. *Drug Alcohol Depend*. 2007 Oct 8;90(2-3):270–9.
26. Walitzer KS, Dermen KH, Barrick C. Facilitating involvement in Alcoholics Anonymous during out-patient treatment: a randomized clinical trial. *Addict Abingdon Engl*. 2009 Mar;104(3):391–401.
27. Sisson RW, Mallams JH. The use of systematic encouragement and community access procedures to increase attendance at Alcoholic Anonymous and Al-Anon meetings. *Am J Drug Alcohol Abuse*. 1981;8(3):371–6.
28. McGregor S. The Alcohol Concern SMART Recovery Pilot Project Evaluation Report [Internet]. Department of Health; 2010. Available from: <http://goo.gl/60bLnZ>

29. Kownacki RJ, Shadish WR. Does Alcoholics Anonymous work? The results from a meta-analysis of controlled experiments. *Subst Use Misuse*. 1999 Nov;34(13):1897–916.
30. Facilitating access to mutual aid. Three essential stages for helping clients access appropriate mutual aid support [Internet]. Public Health England; 2013. Available from: <http://goo.gl/TeKNfj>
31. Connors GJ, Tonigan JS, Miller WR, MATCH Research Group. A longitudinal model of intake symptomatology, AA participation and outcome: retrospective study of the project MATCH outpatient and aftercare samples. *J Stud Alcohol*. 2001 Nov;62(6):817–25.
32. Matching Alcoholism Treatments to Client Heterogeneity: Project MATCH posttreatment drinking outcomes. *J Stud Alcohol*. 1997 Jan;58(1):7–29.
33. Ferri M, Amato L, Davoli M. Alcoholics Anonymous and other 12-step programmes for alcohol dependence. *Cochrane Database Syst Rev*. 2006;(3):CD005032.
34. Chiauzzi E, Surpitski A, Portnoy D. Field trial of InsideOut - A SMART Recovery Correctional Program [Internet]. 1999. Available from: <http://goo.gl/TzJAIX>
35. Brooks AJ, Penn PE. Comparing treatments for dual diagnosis: twelve-step and self-management and recovery training. *Am J Drug Alcohol Abuse*. 2003 May;29(2):359–83.
36. Kyrouz E, Humphreys K. A review of research on the effectiveness of self-help mutual aid groups. *Int J Psychosoc Rehabil*. 1997;(2):64–8.
37. Litt MD, Kadden RM, Kabela-Cormier E, Petry NM. Changing Network Support for Drinking: Network Support Project Two-Year Follow-up. *J Consult Clin Psychol*. 2009 Apr;77(2):229–42.
38. Longabaugh R, Beattie M, Noel N, Stout R, Malloy P. The effect of social investment on treatment outcome. *J Stud Alcohol*. 1993 Jul;54(4):465–78.
39. Havassy BE, Hall SM, Wasserman DA. Social support and relapse: commonalities among alcoholics, opiate users, and cigarette smokers. *Addict Behav*. 1991;16(5):235–46.
40. Crape BL, Latkin CA, Laris AS, Knowlton AR. The effects of sponsorship in 12-step treatment of injection drug users. *Drug Alcohol Depend*. 2002 Feb 1;65(3):291–301.
41. Kaskutas LA, Bond J, Humphreys K. Social networks as mediators of the effect of Alcoholics Anonymous. *Addict Abingdon Engl*. 2002 Jul;97(7):891–900.
42. Bond J, Kaskutas LA, Weisner C. The persistent influence of social networks and alcoholics anonymous on abstinence. *J Stud Alcohol*. 2003 Jul;64(4):579–88.
43. Humphreys K, Mankowski ES, Moos RH, Finney JW. Do enhanced friendship networks and active coping mediate the effect of self-help groups on substance abuse? *Ann Behav Med Publ Soc Behav Med*. 1999;21(1):54–60.

44. Humphreys K, Noke JM. The influence of posttreatment mutual help group participation on the friendship networks of substance abuse patients. *Am J Community Psychol.* 1997 Feb;25(1):1–16.
45. Kelly JF, Hoepfner B, Stout RL, Pagano M. Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: a multiple mediator analysis. *Addiction.* 2012;107(2):289–99.
46. Kelly JF, Stout RL, Magill M, Tonigan JS. The role of Alcoholics Anonymous in mobilizing adaptive social network changes: A prospective lagged mediational analysis. *Drug Alcohol Depend.* 2011 Apr 1;114(2-3):119–26.
47. Five Ways to Well-being: The Evidence [Internet]. [cited 2013 Oct 5]. Available from: <http://goo.gl/pWpAMB>
48. Holt-Lunstad J, Smith TB, Layton JB. Social Relationships and Mortality Risk: A Meta-analytic Review. *PLoS Med.* 2010 Jul 27;7(7):e1000316.
49. Stout RL, Kelly JF, Magill M, Pagano ME. Association between social influences and drinking outcomes across three years. *J Stud Alcohol Drugs.* 2012 May;73(3):489–97.
50. Moos RH, Moos BS. Protective resources and long-term recovery from alcohol use disorders. *Drug Alcohol Depend.* 2007 Jan 5;86(1):46–54.
51. Moos RH. Active ingredients of substance use-focused self-help groups. *Addict Abingdon Engl.* 2008 Mar;103(3):387–96.
52. Kelly JF, Magill M, Stout RL. How do people recover from alcohol dependence? A systematic review of the research on mechanisms of behavior change in Alcoholics Anonymous. *Addict Res Theory.* 2009 Jan;17(3):236–59.
53. McHugh RK, Hearon BA, Otto MW. Cognitive-Behavioral Therapy for Substance Use Disorders. *Psychiatr Clin North Am.* 2010 Sep;33(3):511–25.
54. Dutra L, Stathopoulou G, Basden SL, Leyro TM, Powers MB, Otto MW. A meta-analytic review of psychosocial interventions for substance use disorders. *Am J Psychiatry.* 2008 Feb;165(2):179–87.
55. Magill M, Ray LA. Cognitive-behavioral treatment with adult alcohol and illicit drug users: a meta-analysis of randomized controlled trials. *J Stud Alcohol Drugs.* 2009 Jul;70(4):516–27.
56. Hofmann SG, Asnaani A, Vonk IJJ, Sawyer AT, Fang A. The Efficacy of Cognitive Behavioral Therapy: A Review of Meta-analyses. *Cogn Ther Res.* 2012 Oct 1;36(5):427–40.
57. Kelly JF, Stout RL, Magill M, Tonigan JS, Pagano ME. Spirituality in Recovery: A Lagged Mediational Analysis of Alcoholics Anonymous' Principal Theoretical Mechanism of Behavior Change. *Alcohol Clin Exp Res.* 2011 Mar;35(3):454–63.
58. Pagano ME, White WL, Kelly JF, Stout RL, Tonigan JS. The 10-year course of Alcoholics Anonymous participation and long-term outcomes: a follow-up study of outpatient

- subjects in Project MATCH. *Subst Abuse Off Publ Assoc Med Educ Res Subst Abuse*. 2013 Jan;34(1):51–9.
59. Tonigan JS, Rice SL. Is it beneficial to have an alcoholics anonymous sponsor? *Psychol Addict Behav J Soc Psychol Addict Behav*. 2010 Sep;24(3):397–403.
 60. Rynes KN, Tonigan JS. Do Social Networks Explain 12-Step Sponsorship Effects? A Prospective Lagged Mediation Analysis. *Psychol Addict Behav J Soc Psychol Addict Behav*. 2012 Sep;26(3):432–9.
 61. Apodaca TR, Miller WR. A meta-analysis of the effectiveness of bibliotherapy for alcohol problems. *J Clin Psychol*. 2003 Mar;59(3):289–304.
 62. Marrs RW. A meta-analysis of bibliotherapy studies. *Am J Community Psychol*. 1995 Dec;23(6):843–70.
 63. Li EC, Feifer C, Strohm M. A pilot study: Locus of control and spiritual beliefs in alcoholics anonymous and smart recovery members. *Addict Behav*. 2000 Jul;25(4):633–40.
 64. B D. The Oxford Group and Alcoholics Anonymous [Internet]. 2003. Available from: <http://goo.gl/4aLtH5>
 65. Apanovitch D. Religion and Rehabilitation: The Requisition of God by the State. *Duke Law J*. 1998 Feb 1;47(4):785–852.
 66. Meyer HW. Constitutional and Other Legal Issues in Drug Court - A Webliography [Internet]. [cited 2014 Jan 3]. Available from: <http://www.ndci.org/law>
 67. Meyer HW. Constitutional and Other Legal Issues in Drug Court [Internet]. [cited 2014 Jan 3]. Available from: <http://goo.gl/iDMVuJ>
 68. Tonigan JS, Miller WR, Schermer C. Atheists, agnostics and Alcoholics Anonymous. *J Stud Alcohol*. 2002 Sep;63(5):534–41.
 69. Atkins RG, Hawdon JE. Religiosity and Participation in Mutual-Aid Support Groups for Addiction. *J Subst Abuse Treat*. 2007 Oct;33(3):321–31.
 70. Galaif ER, Sussman S. For whom does Alcoholics Anonymous work? *Int J Addict*. 1995 Jan;30(2):161–84.
 71. Voas D, Ling R. Religion in Britain and the United States. In: Parks A, Thompson K, Phillips M, Clery E, Butt S, editors. *British Social Attitudes: the 26th Report* [Internet]. London: Sage; 2010. p. 65–8. Available from: <http://goo.gl/EGIOdL>
 72. Klaus M, editor. *Alcoholics Anonymous as a Mutual-Help Movement A Study in Eight Societies*. The University of Wisconsin Press; 1996.
 73. Kelly JF, White WL. Broadening the Base of Addiction Mutual-Help Organizations. *J Groups Addict Recovery*. 2012;7(2-4):82–101.

74. Humphreys K, Wing S, McCarty D, Chappel J, Gallant L, Haberle B, et al. Self-help organizations for alcohol and drug problems: Toward evidence-based practice and policy. *J Subst Abuse Treat.* 2004 Apr;26(3):151–8.
75. Kaskutas LA. Comments on the Cochrane Review on Alcoholics Anonymous effectiveness. *Addict Abingdon Engl.* 2008 Aug;103(8):1402–1403; author reply 1403–1404.
76. Morgenstern J, McKay JR. Rethinking the paradigms that inform behavioral treatment research for substance use disorders. *Addict Abingdon Engl.* 2007 Sep;102(9):1377–89.
77. Orford J. Asking the right questions in the right way: the need for a shift in research on psychological treatments for addiction. *Addict Abingdon Engl.* 2008 Jun;103(6):875–885; discussion 886–892.
78. Longabaugh R. The search for mechanisms of change in behavioral treatments for alcohol use disorders: a commentary. *Alcohol Clin Exp Res.* 2007 Oct;31(10 Suppl):21s–32s.
79. Kelly JF, Yeterian JD. Empirical awakening: the new science on mutual help and implications for cost containment under health care reform. *Subst Abuse Off Publ Assoc Med Educ Res Subst Abuse.* 2012;33(2):85–91.