
John Kelly, PhD, ABPP
Elizabeth R. Spallin Associate Professor of Psychiatry in Addiction Medicine, Harvard Medical School
Tuesday, April 23, 2019
**PCSS** is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

<table>
<thead>
<tr>
<th>American Academy of Family Physicians</th>
<th>American Psychiatric Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Neurology</td>
<td>American Society of Addiction Medicine</td>
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<tr>
<td>Addiction Technology Transfer Center</td>
<td>American Society of Pain Management Nursing</td>
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<tr>
<td>American Academy of Pain Medicine</td>
<td>Association for Medical Education and Research in Substance Abuse</td>
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<tr>
<td>American Academy of Pediatrics</td>
<td>International Nurses Society on Addictions</td>
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<tr>
<td>American College of Emergency Physicians</td>
<td>American Psychiatric Nurses Association</td>
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<tr>
<td>American College of Physicians</td>
<td>National Association of Community Health Centers</td>
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<tr>
<td>American Dental Association</td>
<td>National Association of Drug Court Professionals</td>
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<tr>
<td>American Medical Association</td>
<td>Southeastern Consortium for Substance Abuse Training</td>
</tr>
<tr>
<td>American Osteopathic Academy of Addiction Medicine</td>
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Webinar Housekeeping

Minimize or maximize the webinar panel by selecting the orange arrow.

To be recognized, type your question in the “Question” box and select send.
Disclosures

• I have no disclosures to report.
Educational Objectives

• Participants will:
  ▪ Describe the state of the evidence on the efficacy of mutual-aid for enhancing clinical outcomes for opioid and other substance use disorders.
  ▪ Detail the magnitude of the potential health care cost savings that can be derived from prescribing and facilitating mutual-aid participation in treatment settings.
  ▪ List three major mechanisms through which mutual-aid organizations confer therapeutic benefit.
1970: Public Enemy No. 1

During the past 50 years since “War on Drugs” declared, we have moved from “Public Enemy No. 1” to “Public Health Problem No. 1”
The “war on drugs” was part of a national concerted effort to reduce “supply” but also “demand” that created treatment and public health oriented federal agencies.
Paradigm Shifts
Multiple Pathways to Recovery

- Acknowledges myriad ways in which individuals can recover:
  - **Clinical pathways:** provided by a clinician or other medical professional – both medication and psychosocial interventions
  - **Non-clinical pathways:** services not involving clinicians like AA
  - **Self-management pathways:** recovery change processes that involve no formal services, sometimes referred to as “natural recovery”
“ Quitting smoking is easy, I’ve done it dozens of times.”
– Mark Twain
What people really need is a good listening to…
Swift, certain, modest, consequences shape behavioral choices…
The clinical course of addiction and achievement of stable recovery can take a long time…

Addiction Onset

Help Seeking

4-5 years

Full Sustained Remission (1 year abstinent)

Relapse Risk Drops Below 15%

8 years

5 years

Self-initiated Cessation Attempts

4-5 Treatment Episodes/Mutual-Help

Continuing Care/Mutual-Help

50-60% of individuals with addiction will achieve full sustained remission

Recovery Priming

Recovery Mentoring

Recovery Monitoring

www.mghcme.org
Cadre of emerging and growing long-term Recovery Support Services now exist…

- Mutual help organizations
- Clinical models of long-term recovery management
- Peer-based recovery support services
- Recovery community centers
- Recovery supports in educational settings (sober dorms)
- Sober living environments
Treatment and Recovery Support Services ideally should be…

- Available
- Accessible
- Affordable
- Attractive
- Evidence-based
- Diverse
Cadre of emerging and growing long-term Recovery Support Services now exist...

- Mutual help organizations
- Clinical models of long-term recovery management
- Peer-based recovery support services
- Recovery supports in educational settings (sober dorms)
- Sober living environments
- Recovery community centers
Potential Advantages of Community Mutual-Help

Cost-effective – free; attend as intensively, as long as desired

Focused on addiction recovery over the long haul

Widely available, easily accessible, flexible

Access to fellowship/broad support network

Entry threshold (no paperwork, insurance); anonymous (stigma)

Adaptive community based system that is responsive to undulating relapse risk
Recovery Supportive Role Modeling and Influence
Paradox in Onset and Offset of Substance Use...

• Four main reasons why people start taking drugs:
  ▪ To feel good
  ▪ To feel better
  ▪ To do better
  ▪ Because other people are doing it
Paradox in Onset and Offset of Substance Use…

• Four main reasons why people stop taking drugs:
  ▪ To feel good
  ▪ To feel better
  ▪ To do better
  ▪ Because other people are (not) doing it
Overarching Principles Possibly at Play Within and Across AA/MHOs

- Universality
- Instillation of Hope
- Catharsis
- Cohesion
- Imparting of Information
- Altruism
- Imitative Behavior
- Socialization Techniques
- Existential Factors
- Interpersonal Learning
- Self-Understanding/insight

Source: Yalom, 1995
# Recovery-Focused Mutual-Help Groups

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Origin</th>
<th>Number of groups in U.S.</th>
<th>Location of groups in U.S</th>
<th>Evidence base* (0-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoholics Anonymous (AA)</td>
<td>1935</td>
<td>52,651</td>
<td>all 50 States</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>Narcotics Anonymous (NA)</td>
<td>1940s</td>
<td>Approx. 15,000</td>
<td>all 50 States</td>
<td>1, 2</td>
</tr>
<tr>
<td>Cocaine Anonymous (CA)</td>
<td>1982</td>
<td>Approx. 2000 groups</td>
<td>most States; 6 online meetings at <a href="http://www.ca-online.org">www.ca-online.org</a></td>
<td>0</td>
</tr>
<tr>
<td>Methadone Anonymous (MA)</td>
<td>1990s</td>
<td>Approx. 100 groups</td>
<td>25 States; online meetings at <a href="http://methadone-anonymous.org/chat.html">http://methadone-anonymous.org/chat.html</a></td>
<td>1, 2</td>
</tr>
<tr>
<td>Marijuana Anonymous (MA)</td>
<td>1989</td>
<td>Approx. 200 groups</td>
<td>24 States; online meetings at <a href="http://www.ma-online.org">www.ma-online.org</a></td>
<td>0</td>
</tr>
<tr>
<td>Rational Recovery (RR)</td>
<td>1988</td>
<td>No group meetings or mutual helping; emphasis is on <em>individual</em> control and responsibility</td>
<td>-----------------------------------------------</td>
<td>1, 2</td>
</tr>
<tr>
<td>Secular Organization for Sobriety, a.k.a. Save Ourselves (SOS)</td>
<td>1986</td>
<td>Approx. 480 groups</td>
<td>all 50 States; Online chat at <a href="http://www.sossobriety.org/sos/chat.htm">www.sossobriety.org/sos/chat.htm</a></td>
<td>1</td>
</tr>
<tr>
<td>Women for Sobriety (WFS)</td>
<td>1976</td>
<td>150-300 groups</td>
<td>Online meetings at <a href="http://groups.msn.com/WomenforSobriety">http://groups.msn.com/WomenforSobriety</a></td>
<td>1</td>
</tr>
<tr>
<td>Moderation Management (MM)</td>
<td>1994</td>
<td>Approx. 16 face-to-face meetings</td>
<td>12 States; Most meetings are online at <a href="http://www.angelfire.com/trek/mmchat/">www.angelfire.com/trek/mmchat/</a></td>
<td>1</td>
</tr>
</tbody>
</table>

*0= None 1=Descriptive studies only 2 = Observational (correlational, longitudinal) 3= Experimental (random assignment, controlled).
Table 2. Dual-Diagnosis Focused Mutual-Help Groups

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Origin</th>
<th>Number of groups in U.S.</th>
<th>Location of groups in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Trouble in Recovery (DTR)</td>
<td>1989</td>
<td>200</td>
<td>Highest number of groups in NY, GA, CA, CO, NM, FL</td>
</tr>
<tr>
<td>Dual Recovery Anonymous (DRA)</td>
<td>1989</td>
<td>345</td>
<td>Highest number of groups in CA, OH, PA, MA</td>
</tr>
<tr>
<td>Dual Disorders Anonymous</td>
<td>1982</td>
<td>48</td>
<td>28 in IL</td>
</tr>
<tr>
<td>Dual Diagnosis Anonymous (DDA)</td>
<td>(DDA)</td>
<td>56</td>
<td>38 in CA</td>
</tr>
</tbody>
</table>

Source: Kelly & Yeterian, 2008
Table 3. Non-Substance Focused Addictive Behavior Mutual-Help Groups

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Origin</th>
<th>Number of groups in U.S.</th>
<th>Location of groups in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamblers Anonymous (GA)</td>
<td>1957</td>
<td>Approx. 1000 chapters</td>
<td>all 50 States</td>
</tr>
<tr>
<td>Sex Addicts Anonymous (SAA)</td>
<td>1977</td>
<td>Approx. 700 meetings</td>
<td>most States; Online meetings at <a href="http://www.sexaa.org/online.htm">www.sexaa.org/online.htm</a>; Telephone meetings</td>
</tr>
<tr>
<td>Sex and Love Addicts Anonymous (SLAA)</td>
<td>1976</td>
<td>Approx. 1320 groups worldwide</td>
<td>(including in all 50 States), Online meetings at <a href="http://www.slaafws.org/online/onlinemeet.html">www.slaafws.org/online/onlinemeet.html</a>; Regional teleconference calls</td>
</tr>
</tbody>
</table>

Source: Kelly & Yeterian, 2013
In past 25 years, AA research has gone from contemporaneous correlational research to rigorous RCTs, quasi-experiments, cost utility, and MOBC research…
(3-mo) AA attendance

(15-mo) Alcohol Outcomes (PDA or DDD)

… and lagged moderate multiple mediation studies to elucidate its impact and MOBCs.

Baseline (BL) Covariates
- Age
- Race
- Sex
- Marital Status
- Employment Status
- Prior Alcohol Treatment
- MATCH Treatment group
- MATCH study site
- Alcohol Outcomes (PDA/DDD)

(BL) Self-efficacy
- Negative Affect

(BL) Self-efficacy
- Positive Social

(BL) Religious/Spiritual Practices

(BL) Depression

(BL) Social Network
- “pro-abstinence”
- “pro-drinking”

(9-mo) Self-efficacy
- Negative Affect

(9-mo) Self-efficacy
- Positive Social

(9-mo) Religious/Spiritual Practices

(9-mo) Depression

(9-mo) Social Network
- “pro-abstinence”
- pro-drinking”
Regular article

Dropout from 12-step self-help groups: Prevalence, predictors, and counteracting treatment influences

John F. Kelly, Ph.D.* , Rudolf Moos, Ph.D.

Center for Healthcare Evaluation, Veterans Affairs Palo Alto Healthcare System (MPD-152) and Stanford University School of Medicine, 795 Willow Road, Menlo Park, CA 94025, USA

Received 6 November 2002; received in revised form 19 February 2003; accepted 19 February 2003

Abstract

Attendance at 12-step self-help groups is frequently recommended as an adjunct to professional substance use disorder (SUD) treatment, yet patient dropout from these groups is common. This study assessed the prevalence, predictors, and treatment-related factors affecting dropout in the first year following treatment for 2,778 male patients. Of these, 91% (2,518) were identified as having attended 12-step groups either in the 90 days prior to, or during, treatment. At 1-year followup 40% had dropped out. A number of baseline factors predicted dropout. Importantly, patients who initiated 12-step behaviors during treatment were less likely to drop out. Further findings suggest patients at highest risk for dropout may be at lower risk if treated in a more supportive environment. Clinicians may decrease the likelihood of dropout directly, by screening for risk factors and focusing facilitation efforts accordingly, and indirectly, by increasing the supportiveness of the treatment environment, and facilitating 12-step involvement during treatment. © 2003 Elsevier Inc. All rights reserved.

Keywords: Substance abuse; Self-help; 12-step; Alcoholics Anonymous; Drop out
Facilitation by Dropout-Risk Interaction

- 40% 12-step dropout rate at 1 year
- Those dropping out had 3x higher odds of relapse
- Those at highest dropout risk treated in 12-step programs had substantially lower dropout than those treated in CBT programs

Cochrane Systematic Review on AA/TSF

- Kelly, JF
- Humphreys, K
- Ferri, M
(In progress)
### Alcohol-related Consequences

#### Alcohol Use Severity

<table>
<thead>
<tr>
<th>Study</th>
<th>Abstinence</th>
<th>Drinking Intensity</th>
<th>Alcohol-related Consequences</th>
<th>Alcohol Use Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proportion Completely Abstinent</td>
<td>Percent Days Abstinent</td>
<td>Longest Period of Abstinence</td>
<td>Drinks Per Drinking Day</td>
</tr>
<tr>
<td>Brown 2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Davis 2002</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Kelly 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Litt 2007</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Litt 2009</td>
<td></td>
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<tr>
<td>Litt 2016</td>
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<td></td>
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<tr>
<td>Lydecker 2010</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>MATCH 1997a</td>
<td></td>
<td></td>
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<tr>
<td>MATCH 1998a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATCH 1998b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCrady 1996</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCrady 1999</td>
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<td></td>
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<td>McCrady 2004</td>
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<tr>
<td>Walitzer 2009</td>
<td></td>
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<tr>
<td>Walitzer 2015</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

#### Beneficial effects of TSF interventions observed across several outcomes – particularly sustained remission/abstinence

Reduces health care costs substantially while improving alcohol outcomes

Estimates of beneficial effects are conservative as many in comparison conditions also attending AA despite not being facilitated to do so.
TSF Compared to Different Theoretical Orientation Treatments (RCTs all Manualized)

% COMPLETELY ABSTINENT

<table>
<thead>
<tr>
<th>STUDY</th>
<th>TSF</th>
<th>COMP TX 1</th>
<th>COMP TX 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davis 2002*</td>
<td>36</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Litt 2007*</td>
<td>41</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Litt 2009*</td>
<td>45</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Litt 2016</td>
<td>30</td>
<td>26</td>
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<td>MATCH 1997a*</td>
<td>32</td>
<td>29</td>
<td></td>
</tr>
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<td>MATCH 1998a*</td>
<td>24</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>MATCH 1998b*</td>
<td>24</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Kelly 2017</td>
<td>33</td>
<td>21</td>
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<tr>
<td>McCrady 1999*</td>
<td>36</td>
<td>22.7</td>
<td>25</td>
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</table>
TSF Compared to Different Theoretical Orientation Treatments (RCTs all Manualized)

% COMPLETELY ABSTINENT

<table>
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<tr>
<th>STUDY</th>
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<th>Relative Advantage</th>
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<td>Davis 2002*</td>
<td>36</td>
<td>19</td>
<td></td>
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<tr>
<td>Litt 2007*</td>
<td>41</td>
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<td>45</td>
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<td>26</td>
<td></td>
</tr>
<tr>
<td>Litt 2016</td>
<td>32</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATCH 1997a*</td>
<td>10.34</td>
<td>24</td>
<td>15</td>
<td>14</td>
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<td>MATCH 1998a*</td>
<td>60.00</td>
<td>36</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>MATCH 1998b*</td>
<td>50.00</td>
<td>50.00</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Kelly 2017</td>
<td>33</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCrady 1999*</td>
<td>58.59</td>
<td>36</td>
<td>22.7</td>
<td>25</td>
</tr>
</tbody>
</table>
Healthcare Cost Savings

- Economic analyses found benefits in favor of AA/TSF relative to outpatient treatment, and CBT interventions.
- Magnitude quite large. In addition to sig. increased abstinence compared to CBT interventions, AA/TSF reduces mental health and substance use-related healthcare costs over the next two years by over $10,000 per patient (converted to 2018 U.S. dollars).
- More than 1M people treated for AUD in U.S. annually - reducing their health care costs by this amount would produce an large aggregate economic saving (e.g., >$10 billion in the U.S. alone) as well as improving clinical outcomes.
For alcohol-related outcomes other than complete abstinence, AA and professionally-delivered TSF interventions are at least as effective as other well-established treatments.

Implementing AA and TSF also appear to produce substantial health care cost savings.

For abstinence outcomes, AA and TSF interventions are superior to other well-established treatments.

Medialional analyses demonstrate clinically delivered TSF produce its benefits largely through its ability to foster increased AA participation during and, importantly, following the end of formal treatment.
In studies conducting and reporting mediational analyses...AA/TSF Causal chain supported...
What about support for causal chain of purported MOBC of AA on outcomes?
Empirically-supported MOBCs through which AA confers benefit

- Social network
- Social Abstinence self-efficacy
- Recovery motivation
- Impulsivity
- Spirituality
- Coping skills
- Craving
- Negative Affect Abstinence self-efficacy
The results of this review suggest that 12-step interventions to support illicit drug users are as effective as alternative psychosocial interventions in reducing drug use.
Examining the Efficacy of 4 Psychosocial Treatments for Cocaine-Dependent Patients

- **Sample:** 487 individuals aged 18 to 60 with DSM-IV cocaine dependence from 5 sites:
  - University of Pittsburgh (PA)
  - University of Pennsylvania (PA)
  - Brookside Hospital (NH)
  - Massachusetts General Hospital (MA)
  - McLean Hospital (MA)

- **Design:** Randomized controlled trial

- **Follow-up:** Monthly assessments during 6 months of active treatment and follow-up at 9 and 12 months

- **Interventions:** 4 manual-guided treatments
  - **IDC:** Individual drug counseling plus group drug counseling (GDC); n = 121
  - **CT:** Cognitive therapy plus GDC; n = 119
  - **SE:** Supportive-expressive therapy plus GDC; n = 124
  - **GDC** alone; n = 123

- **Outcomes:** Addiction Severity Index-Drug Use Composite score, number of days of cocaine use in past month
Mean ASI-Drug Use Composite Scores

IDC showed significantly better improvement to ASI than the three other groups
Continuous Abstinence from Cocaine Use

IDC showed significantly better improvement compared to CT and SE.

By 12 months, IDC increases slightly while other three groups decline.
More patients achieved abstinence with IDC compared to the three other groups.
Stimulant abuser groups to engage in 12-Step: A multisite trial in the National Institute on Drug Abuse Clinical Trials Network

Dennis M. Donovan, Ph.D. a,b,*, Dennis C. Daley, Ph.D. c, Gregory S. Brigham, Ph.D. d, Candace C. Hodgkins, Ph.D. e, Harold I. Perl, Ph.D. f, Sharon B. Garrett, MPH a, Suzanne R. Doyle, Ph.D. a, Anthony S. Floyd, Ph.D. g, Patricia C. Knox, Ph.D. h, Christopher Botero, B.S. i, Thomas M. Kelly, Ph.D. c,j, Therese K. Killeen, Ph.D. k, Carole Hayes, M.A. l, Nicole Kau‘iBaumhofer, M.A. m, Cindy Seamans, Ph.D. n, Lucy Zammarelli, M.A. o

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b Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA, USA
c Department of Psychiatry, University of Pittsburgh, and Western Psychiatric Institute and Clinic, Pittsburgh, PA, USA
d Maryhaven, Columbus, OH, USA
e Gateway Community Services, Inc, Jacksonville, FL, USA
f National Institute on Drug Abuse, Bethesda, MD, USA
g University of Washington Human Subjects Division, Seattle, WA, USA
h Recovery Centers of King County, Seattle, WA, USA
i ChangePoint, Inc., Portland, OR, USA
j Center for Psychiatric and Chemical Dependency Services, Pittsburgh, PA, USA
k Dorchester Alcohol and Drug Commission, Summerville, SC, and Institute of Psychiatry, Medical University of South Carolina, Charleston, SC, USA
l Evergreen Manor, Everett, WA, USA
m Hina Maaka, Kaneohe, HI, USA
n Nexus Recovery Center, Dallas, TX, USA
o Willamette Family Treatment Services, Eugene, OR, USA

ARTICLE INFO

Aims: The study evaluated the effectiveness of an 8-week combined group plus individual 12-step facilitative intervention on stimulant drug use and 12-step meeting attendance and service.

Design: Multisite randomized controlled trial, with assessments at baseline, mid-treatment, end of treatment, and 3- and 6-month post-randomization follow-ups (FUs).
Stimulant Abusers to Engage in 12-Step

- **Aims:** to evaluate the efficacy of an 8-week combined group and individual 12-step facilitative intervention on stimulant drug use and 12-step meeting attendance and service

- **Study Design:** Multisite, randomized controlled trial

- **Sample:** 471 individuals from intensive outpatient treatment programs with stimulant use disorders

- **Measures:** Urinalysis and self-reported substance use; 12-step attendance and activities

- **Intervention:**
  - Control group: Treatment as usual
  - Intervention group (STAGE-12): Group sessions focused on increasing acceptance of 12-step principles and individual sessions that incorporated an intensive referral procedure connecting participants to 12-step volunteers
Stimulant Abusers to Engage in 12-Step (STAGE-12)

Comparison Group: TAU

<table>
<thead>
<tr>
<th>Follow-Up Period</th>
<th>Odds Ratio (OR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-treatment (30-day)</td>
<td>3.34*</td>
</tr>
<tr>
<td>End-of-treatment (60-day)</td>
<td>2.44*</td>
</tr>
<tr>
<td>First follow-up (90-day)</td>
<td>1.78</td>
</tr>
<tr>
<td>Second follow-up (120-day)</td>
<td>1.30</td>
</tr>
<tr>
<td>Third follow-up (150-day)</td>
<td>0.95</td>
</tr>
<tr>
<td>Last follow-up (180-day)</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Odds of Abstinence

* Significant difference
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

Michael Gossop, Duncan Stewart & John Marsden
National Addiction Centre, Maudsley Hospital/Institute of Psychiatry, King's College London, London, UK

ABSTRACT

Aims This study investigates the relationship between frequency of attendance at Narcotics Anonymous and Alcoholics Anonymous (NA/AA) meetings and substance use outcomes after residential treatment of drug dependence. It was predicted that post-treatment NA/AA attendance would be related to improved substance use outcomes.

Methods Using a longitudinal, prospective cohort design, interviews were conducted with drug-dependent clients (n = 142) at intake to residential treatment, and at 1 year, 2 years and 4–5 years follow-up. Data were collected by structured interviews. All follow-up interviews were carried out by independent professional interviewers.

Findings Abstinence from opiates was increased throughout the 5-year follow-up period compared to pre-treatment levels. Clients who attended NA/AA after treatment were more likely to be abstinent from opiates at follow-up. Abstinence from stimulants increased at follow-up but (except at 1-year follow-up) no additional benefit was found for NA/AA attendance. 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. More frequent NA/AA attenders were more likely to be abstinent from opiates and alcohol when compared both to non-attenders and to infrequent (less than weekly) attenders.

Conclusions NA/AA can support and supplement residential addiction treatment as an aftercare resource. In view of the generally poor alcohol use outcomes achieved by drug-dependent patients after treatment, the improved alcohol outcomes of NA/AA attenders suggests that the effectiveness of existing treatment services may be improved by initiatives that lead to increased involvement and engagement with such groups.
Abstinence rates higher across all three primary substances at 1yr follow-up for MHO attendees; also at 2 and 5yrs for alcohol and opiates.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Self-help attendance and abstinence (%) from opiates, stimulants and alcohol at 1, 2 and 4–5 years follow-up.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 year</td>
</tr>
<tr>
<td></td>
<td>No self-help (n = 107)</td>
</tr>
<tr>
<td>Opiates</td>
<td>37</td>
</tr>
<tr>
<td>Stimulants</td>
<td>60</td>
</tr>
<tr>
<td>Alcohol</td>
<td>34</td>
</tr>
</tbody>
</table>

Odds ratios (OR) are adjusted for age, sex, ethnicity, pre-intake severity of dependence and pre-intake contact with NA and/or AA. None of these covariates was a statistically significant predictor of outcome. Odds are calculated with the no self-help group as the reference category. Levels of statistical significance are shown as: *P < 0.05; **P < 0.01; ***P < 0.001.

Abstinence rates higher for alcohol and opiates at 5 year follow-up for participants attending at least weekly MHO meetings.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Abstinence from opiates, stimulants and alcohol at 4–5 years follow-up by frequency of self-help attendance.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% No self-help attendance (n = 89)</td>
</tr>
<tr>
<td>Opiates</td>
<td>38</td>
</tr>
<tr>
<td>Stimulants</td>
<td>58</td>
</tr>
<tr>
<td>Alcohol</td>
<td>25</td>
</tr>
</tbody>
</table>

Odds ratios (OR) are adjusted for age, sex, ethnicity, pre-intake severity of dependence and pre-intake contact with NA and/or AA. None of these covariates was a statistically significant predictor of outcome. Odds are calculated with the no self-help group as the reference category. Levels of statistical significance are shown as: **P < 0.01; ***P < 0.001.
Outcomes of Buprenorphine and 12-Step Attendance

SAMPLE
Quantitative: n=300, (Qualitative: n=20), opioid dependent African Americans newly admitted to buprenorphine maintenance treatment program (BMT)

DESIGN
Longitudinal, naturalistic study of 12-step participation among individuals receiving BMT as part of a randomized trial

RELATIONSHIP BETWEEN: 12-Step group attendance & treatment outcomes at 6 months

OUTCOMES
(QUALITATIVE) Lack of disclosure of BMT status to NA members, disclosure lead to counsel to stop or decrease BMT treatment,

(QUANTITATIVE) meeting attendance higher in abstinent individuals or those enrolled in BMT, overall, 2% increase in BMT treatment retention for each meeting attended & 1% increase in odds of remaining abstinent
Buprenorphine Treatment and 12-Step Attendance

Table 3. Multivariate logistic regression predicting 6-month treatment retention and abstinence.

<table>
<thead>
<tr>
<th></th>
<th>Treatment retention</th>
<th>Abstinence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AOR (95% CI)</td>
<td>p</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.99 (0.96–1.04)</td>
<td>.91</td>
</tr>
<tr>
<td>Treatment site</td>
<td>1.44 (0.81–2.58)</td>
<td>.22</td>
</tr>
<tr>
<td>Group counseling</td>
<td>0.83 (0.69–0.99)</td>
<td>.048</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of NA meetings</td>
<td>1.02 (1.01–1.03)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>in prior 6 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counselor requires</td>
<td>0.70 (0.37–1.35)</td>
<td>.29</td>
</tr>
<tr>
<td>AA/NA attendance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment retention</td>
<td>6.97 (3.19–15.22)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Notes: n = 272 (treatment retention); n = 271 (abstinence). AOR = adjusted odds ratio; CI = confidence interval. Statistically significant p-values (< .05) are bolded.

Number of NA meetings prior to 6 months a significant predictor of abstinence

Number of NA meetings prior to 6 months a significant predictor of treatment retention

Effective Clinically Delivered Mutual-Help Strategies Likely to Enhance Outcomes and Reduce Health Care Costs

- Actively prescribe participation rather than leaving to patient
- Clinically facilitate linkage to existing members
- Clinically monitor participation in outpatient sessions
- Ask patients to keep diary of experiences for clinical discussion - help overcome barriers
- Encourage acquiring 12-step sponsor, find “home group”, verbally participate during meetings
Specific Clinical Strategies for Facilitating Mutual-Aid Participation

- Treatment varied between 3 conditions in terms of how the therapist discussed AA and how much information about AA was shared
  - **1: Directive approach**
    - Therapist directed
    - Client signed contract describing goals to attend AA meetings
    - Therapist encouraged client to keep a journal about meetings
    - Reading material about AA provided to client
    - Therapist informs client about skills to use during meetings and sponsor
    - 38% total material covered in sessions was about AA
  - **2: Motivational enhancement approach (more client centered)**
    - Therapist obtains clients feelings and attitudes about AA
    - Therapist describes positive aspects of AA, but up to client how much involved
    - Therapist intends to assist the client in making a decision in favor of AA
    - 20% total material covered in sessions about AA
  - **3: CBT treatment as usual, no special emphasis on AA**
    - Throughout treatment, therapist briefly inquires about AA and encourages client to attend AA
    - 8% total material covered in sessions about AA

Walitzer, Dermen & Barrick, 2009
Strategies for Facilitating Outpatient Attendance of AA- Findings

• Participants exposed to the Directive TSF approach reported significantly more:
  ▪ attendance of AA meetings
  ▪ more active involvement in AA
  ▪ higher percent days abstinent in comparison to the treatment as usual group
• AA involvement partially mediated effects
Does active referral by a doctor or 12-Step peer improve 12-Step meeting attendance? Results from a pilot randomised control trial

Victoria Manning, David Best, Nathan Faulkner, Emily Titherington, Alun Morinan, Francis Keaney, Michael Gossop, John Strang

Abbreviations:

a Kings College London, National Addiction Centre, Maudsley Hospital/Institute of Psychiatry, 4 Windsor Walk, London SE5 8B, UK
b Turning Point Alcohol and Drug Centre/Monash University, 54-62 Gertrude Street, Footscray, Melbourne, 3065, Australia

Abstract

Background: Active engagement in 12-Step self-help groups (SHG) is associated with improvements in substance use outcomes during and after treatment, yet levels of participation in SHG meetings in the UK remain low.

Method: An RCT investigating the impact of active referral to SHG, delivered by doctors or 12-Step peers during inpatient treatment on both inpatient and post-treatment meeting attendance was conducted. 151
Active referral to 12-step groups

• Study Design: Randomized controlled trial with 2-3m follow-up

• Sample: 151 alcohol or drug (opiate, cocaine, benzo) dependent patients admitted for a 10-14 day NHS inpatient drug/alcohol detoxification treatment at the Maudsley in London

• Intervention:
  ▪ Control group:
    - No-referral intervention (NI): Patient provided with a list of meetings
  ▪ Intervention groups:
    - Doctor-referral intervention (DI): initiate a dialogue with patient regarding 12-step meetings
    - Peer-referral intervention (PI): initiate a dialogue with patient regarding 12-step meetings and share personal experiences with 12-step groups
Active referral to 12-step groups (Manning et al, 2012)

• Active linkages (Peer [PL] or doctor [DI]) produced higher attendance rates than no intervention (NI) (88% vs 73%; p < .05); although NI was still high

• Those attending during tx sig more likely to attend post-tx (59% versus 20%; (2 = 9.9, p < .01).

• Sig group differences in post-discharge attendance rates (PL = 64%, DI = 48%, NI = 33% p < .05)

• Among those without prior 12-Step experience, 33% of PL, 73% of DI, and 0% of NI, group, attended meetings post-tx (p < .01).
“Warm hand-off”
Clinician Referrals to AA (Timko et al 2006; 2007)

- Individuals entering SUD outpatient program randomly assigned to...
  - **Condition 1: standard referral**
    - Patients given locations and schedules of meetings and encouraged to attend
  - **Condition 2: intensive referral**
    - Patients given locations and schedules of meetings, with meetings preferred by previous clients indicated
    - Therapist reviews handout about program including introduction to 12-step philosophy and common concerns
    - Therapist arranged meeting with current member and client had phone conversation with this member during session
    - Therapist and client agreed on which meetings client will attend and client kept a journal of meetings attended and experiences
Effectiveness of Clinician Referrals to AA- Findings

• At 6m, patients in intensive referral who had relatively less previous 12-Step experience had:
  ▪ higher meeting attendance
  ▪ better substance use outcomes

• At both the 6 and 12 month follow up, patients in intensive referral:
  ▪ more likely to attend at least one meeting per week
  ▪ had higher rates of attendance and had higher rates of abstinence
12 Step Alternatives: Main Findings

Smart Recovery
One study found no difference between SR meetings only and SR meetings + an online SR intervention\[23\]

Peer Alternatives Comparative Efficacy Study
- Adults with AUD who were members of WFS, LifeRing, SMART, or 12-step\[24\]
  - Overall, primary group affiliation and involvement did not predict substance use outcomes over the 1-year period
  - SMART Recovery and LifeRing members were less likely than 12-step members to be abstinent at 1-year follow-up; however, these effects were negated when controlling for baseline abstinence goal

Alternatives to 12-step are likely to be as helpful as 12-step involvement at helping people manage SUDs. However, more research is needed on alternatives to 12-step, including research on facilitation to these groups.
Effective Clinically Delivered Mutual-Help Strategies Likely to Enhance Outcomes and Reduce Health Care Costs

- Actively prescribe participation rather than leaving to patient
- Clinically facilitate linkage to existing members
- Clinically monitor participation in outpatient sessions
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PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid addiction.
- PCSS Mentors are a national network of providers with expertise in addictions, pain, evidence-based treatment including medication-assisted treatment.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

For more information visit: [https://pcssNOW.org/mentoring/](https://pcssNOW.org/mentoring/)
PCSS Discussion Forum

Have a clinical question?

Ask a Colleague
A simple and direct way to receive an answer related to medication-assisted treatment. Designed to provide a prompt response to simple practice-related questions.

Ask Now

http://pcss.invisionzone.com/register
Opioid Use Disorder Virtual Learning Collaborative (VLC)

- Play a role in expanding the availability of medical for addiction treatment options for opioid use disorders
- Each collaborative runs for 12-weeks and is lead by an experienced faculty advisor
- Participants watch pre-recorded webinars, call into office-hours, engage with a virtual community and complete an individual project
- Participants will earn up to 12 Continuing Medical Education (CME) credits
- Fill out our interest intake form at apapsy.ch/OpioidSTR Contact Eunice Maize at emaize@psych.org for more information.

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Session Evaluation and Certificate

- Instructions will be provided in an email sent to participants an hour after the live session.
- Certificates are available to those who complete an evaluation.
- Recordings of today’s webinar can be accessed at www.pcssNOW.org and education.psychiatry.org.
Upcoming PCSS Webinar

Vaccines for Opioid Use Disorder: Focusing on the Fentanyl Epidemic

Thomas R. Kosten, MD
Waggoner Professor in Psychiatry, Pharmacology and Neuroscience
Baylor College of Medicine

Fang Yang, MD, PhD
Addiction Psychiatry Fellow
Baylor College of Medicine

Tuesday, May 28, 2019
12:00-1:00 PM EST