How might MHGs like AA reduce relapse risk and sustain the recovery process?

AA-related social network changes may help avoid cues, reduce and tolerate distress, and maintain abstinence minimizing drug-induced relapse risks.


Friday, August 23, 13
Conceptualization of How AA May Reduce Relapse Risk: Cognitive Behavioral Relapse Prevention Model

Adapted from: Marlatt & Gordon, 1985
How do people recover from alcohol dependence? A systematic review of the research on mechanisms of behavior change in Alcoholics Anonymous

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Do more and less severely alcohol dependent individuals benefit from AA in the same or

Source: Kelly, Hoeppner, Stout, Pagano (2012), Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous.
Do more and less severely alcohol dependent individuals benefit from AA in the same or different ways? The effect of AA on alcohol use for AC was explained by social factors but also by S/R and through negative affect (DDD only). The majority of effect of AA on alcohol use for OP was explained by social factors. 

Source: Kelly, Hoeppner, Stout, Pagano (2012), Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous.
Do men and women benefit from AA in the same ways?
Percentage of effect of AA attendance on outcomes (PDA; DDD) for men and women accounted for by the six mediators.
CONCLUSIONS

– Recovery benefits derived from AA differ in nature and magnitude between more severely alcohol involved/impaired and less severely alcohol involved/impaired; and between men and women

– These differences reflect differing needs based on recovery challenges related to differing symptom profiles, degree of subjective suffering and perceived severity/threat, recovery challenges, and gender-based social roles & drinking contexts

– Similar to psychotherapy literature (Bohart & Tollman, 1999) rather than thinking about how AA or similar organizations work, better to think how individuals use or make these organizations work for them – to meet their most urgent needs at any given phase of recovery
Overview

• SUDs: massive health, social, and economic burden
• Mutual-help groups (MHGs) can offset that burden
• MHGs work for many different types of individuals over and above formal treatment
• MHGs work through mechanisms similar to those operating in formal treatment
• **MHOs can reduce costs by reducing patients’ reliance on professional services without any detriment to outcomes, and may even enhance outcomes**
• Empirically-supported clinical interventions
Health Care Cost offset Potential of Mutual aid organizations

» N = approx. 1,700
» Followed for 2yrs post tx
» Half treated in purest CBT intensive programs (mostly residential); half treated in purest 12-step-oriented intensive programs (mostly residential)
» Informal and formal health care utilization measured over time and $$$
Health care cost offset (I) 1yr (above) & 2yr (below)
Clinical outcomes

![Bar charts showing clinical outcomes for Abstinent, No SA-related problems, No psychological problems, and No psychiatric problems. The charts compare CBT and TSF treatments.](image-url)
Cost-effectiveness (I) 1YR (above) and 2YR Follow-Up Mental health care utilization

- **Inpatient days**
  - CBT: 20
  - TSF: 12
- **Outpatient days**
  - CBT: 15
  - TSF: 10

- **Inpatient days**
  - CBT: 10
  - TSF: 6
- **Outpatient days**
  - CBT: 12
  - TSF: 8

* Indicates significant difference between CBT and TSF.
Cost-effectiveness (I) 1YR Follow-Up
3. Self-help group involvement

![Bar chart showing comparison between CBT and TSF for 12-step attendance and talking with a sponsor over 1-year follow-up.](attachment:chart.png)
**Health Care Cost Offset**

**CBT vs 12-Step Residential Treatment**

Compared to CBT-treated patients, 12-step treated patients more likely to be in recovery, at a $8,000 lower cost per pt over 2 yrs ($15M total savings).
Adolescent Health Care Cost Offset 7-year Study

• N = 403 adolescents, age 13–18
• Follow-up: 6 months, 1, 3, 5, and 7 years
• 12-step attendance associated with better outcomes over the 7 yr period
• Avg annual medical costs for all participants over 7 years: $3085 per person per year
• 4.7% decrease in medical costs with each additional 12-step meeting attended = $145 annual savings per 12-step

Source: Mundt, Parthasarathy, Chi, Sterling, Campbell (2012)
Overview

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• Empirically-supported clinical
Does Facilitation During Tx Affect Risk for Dropout?

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Treatment Settings Combined</th>
<th>High Supportive Treatment milieu</th>
<th>Low supportive Treatment milieu</th>
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<tr>
<td></td>
<td>n</td>
<td>Dropout Rate</td>
<td>n</td>
</tr>
<tr>
<td>0</td>
<td>261</td>
<td>30 % (77)</td>
<td>151</td>
</tr>
<tr>
<td>1</td>
<td>548</td>
<td>30 % (163)</td>
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<td>2</td>
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<td>54 % (81)</td>
<td>36</td>
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<tr>
<td>6-7</td>
<td>78</td>
<td>65 % (51)</td>
<td>16</td>
</tr>
</tbody>
</table>

Dropout rate = 40%

AA dropouts had 3x higher odds of relapse to alcohol/drug use

Facilitation by Dropout-Risk

Precursor to current TSF research (Sisson and Mallams, 1981)

• 20 patients randomly selected from outpatient tx program for alcohol use disorder

• Randomly assigned to:
  – 1: Standard referral
    – given information about AA including time, date, location of meetings, encouraged to attend meetings
  – 2: Systematic encouragement and community access
    – In addition to standard procedure, clients had phone conversation with AA member during a session – client and AA member met before first
Precursor to current 12-Step facilitation research

• Results:
  – 0% clients in standard referral attended a meeting during the target week
  – 100% clients in systematic encouragement and community access group attended meeting during target week
  – Mean AA meeting attendance rate for 4 week period:
    • 0 for standard referral group vs 2.3 for systematic encouragement group
TSF Delivery Modes

Stand alone Independent therapy

Integrated into an existing therapy

Component of a treatment package (e.g., an additional group)

As Modular appendage linkage component

e.g., Timko et al, (2006; 2007); Kahler et al, (2005); Sisson and Mallams, (1981)
e.g., Project MATCH Research Group (1997); Litt et al, (2009)
e.g., Walitzer et al, (2008);
e.g., Kaskutas et al, (2009)
Project MATCH

• Multisite randomized clinical trial of alcohol dependent individuals
  • 2 arms
    • Aftercare (n=774) – recently finished inpatient treatment
    • Outpatient (n=952)
  • 3 conditions, all with ultimate goal of abstinence
    • Twelve Step Facilitation
      – Therapist took firm stance against any drinking
    • Cognitive Behavioral Therapy
      – Therapist assisted in building skill set to maintain abstinence
    • Motivational Enhancement Therapy
      – Therapist aimed to build clients motivation to accept
Project MATCH– Results (1)

- Individuals randomly assigned to TSF attended AA more frequently and had higher rates of continuous abstinence (71% more) 1yr following tx (TSF=24%, CBT=15%, MET=14%) than those assigned to CBT or MET; similar on continuous outcomes (PDA/DDD)

- Social support for drinking
  - 3 yrs post treatment, clients whose social networks were more supportive of drinking prior to treatment had higher abstinence and lower drinks per drinking day in TSF than in MET (clients in CBT did not show a significant advantage over those in MET)
Project MATCH– Results (2)

- Effects mediated by ongoing AA attendance
- Across txs, those who attended AA groups had better outcomes (Tonigan et al, 2002)
- AA valuable adjunct to SUD treatment – even when not formally emphasized

Continuous Abstinence Rates- 15 Months

Continuous Abstinence Rates- 3 Years
TSF Delivery Modes

Stand alone
Independent therapy

Integrated into an existing therapy

Component of a treatment package (e.g., an additional group)

As Modular add-on linkage component
Strategies for Facilitating Outpatient Attendance of AA (Wallitzer et al, 2008)

• Approaches to assist in involvement in AA

• 169 adult alcoholic outpatients randomly assigned to one of three treatment conditions

• All clients received treatment that included:
  – 12 sessions
  – Focus on problem-solving, drink refusal, relaxation
  – Recommendation to attend AA meetings
Strategies for Facilitating Outpatient Attendance of AA

- Treatment varied between 3 conditions in terms of how the therapist discussed AA and how much information about AA was shared
  - **Condition 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 about using a sponsor
    - 38% total material covered in sessions was about AA
  - **Condition 2: motivational enhancement approach (more client centered)**
    - Therapist obtains clients feelings and attitudes about AA
    - Therapist describes positive aspects of AA, but states that it is up to the client how much they will be involved
    - Therapist intends to assist the client in making a decision in favor of AA
    - 20% total material covered in sessions about AA
  - **Condition 3: CBT treatment as usual, no special emphasis on AA**
    - Throughout treatment, therapist briefly inquires about AA and encourages client to attend 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 motivational and treatment as usual groups

• Evidence suggests AA involvement partially mediated the effects of the directive approach
TSF Delivery Modes

Stand alone
Independent therapy

Integrated into an existing therapy

Component of a treatment package (e.g., an additional group)

As Modular add-on linkage component
MAAEZ Intervention (Kaskutas et al, 2009)

- Making AA Easier—manual guided—designed to help clients prepare for AA

- Goal: to prepare for AA (encourage participation in AA, minimize resistance to AA, and educate about AA)
  - MAAEZ intervention is conducted in a group format to help prepare for group dynamic of AA

- Facilitator goal: to inform clients about AA and facilitate group interaction
  - Facilitator recommended to be an active member of AA, NA, or CA

- Discussion format: MAAEZ allows and encourages feedback (referred to as “cross-talk” in MAAEZ), unlike AA which does not allow feedback
MAAEZ Intervention– Design

• Structure of Program:

• Six, weekly, 90–minute sessions
  – Homework assigned at the end of each session
    – List of texts for reading assignments provided in manual
    – List of articles that discuss effectiveness of AA provided in manual
    – Each homework assignment includes going to at least one AA meeting in the 7 days following that session, making connections with other people in AA, and completing reading assignments
MAAEZ –4 Core Components/Sessions

- **Spirituality**: provides clients with range of “spirituality” definitions that do not all require religious orientation. The **homework** assignment after that session is to talk to someone longer sober, after a meeting.

- **Principles Not Personalities**: deals with AA myths, types of meetings/etiquette. **Homework**—ask someone for phone number and speak on the phone before next session.

- **Sponsorship**: explains function of AA sponsor, offers guidelines for picking someone, and includes role-playing to practice asking for a sponsor and overcoming a rejection. **Homework** that week is to get a temporary sponsor.

- **Living Sober**, tools for staying sober are tackled: relapse triggers, service, and avoiding “slippery” people, places, and things. **Homework** for this session is to socialize with someone in AA who has more sobriety.
MAAEZ Intervention– Results

• Abstinence:
  – TSF participants significantly more past 30 day alcohol abstinence, drug abstinence, and both alcohol and drug abstinence at 12 month time period
  – Increased odds of continuous abstinence in general and for each additional MAAEZ session attended

• Prior AA Exposure:
  – MAAEZ found to be more effective in participants with AA previous experience (differs from outcomes found in Project MATCH), possibly because MAAEZ gives clients new perspective of AA

Kaskutas et al 2009
TSF Delivery Modes

Stand alone
Independent therapy

Integrates into an
existing therapy

Component of a treatment
package (e.g., an
additional group)

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linkage component

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Patients undergoing inpatient treatment assigned to one of two treatment conditions:

- **Brief Advice (BA)**
  - 5 minute individual session, therapist stresses gravity of the problem with alcohol, importance of abstinence and benefits of AA

- **Motivational Enhancement for 12-step involvement (ME-12)**
  - 60 minute individual session with focus on abstinence; participant asked to discuss goals and positive and negative aspects of use
  - Information about AA provided included obtaining a sponsor; participants asked to discuss ways to maximize the benefits of AA
  - Participant set goal for AA attendance
MET for 12 Step Involvement: Findings

MET-12 did not increase patient involvement in AA or benefit alcohol use outcomes.

However, interaction effects indicate that treatment success was moderated by the patient’s prior experience with AA:

- ME-12 more effective for patients with less AA experience - higher AA involvement and better alcohol use outcomes.
- BA more effective for patients with more AA experience.
Effectiveness of Clinician Referrals to AA (Timko et al 2006; 2007)

- Evaluation of procedures to effectively refer patients to 12-step meetings
- Individuals with SUDs entering a new outpatient treatment program randomly assigned to a treatment condition and provided self reports on meeting attendance and substance use

- **Condition 1: standard referral**
  - Patients given locations and schedules of meetings and encouraged to attend

- **Condition 2: intensive referral**
  - Patients give locations and schedules of meetings, with the meetings preferred by previous clients indicated
  - Therapist reviews a handout about program including introduction to 12-step philosophy and common concerns
  - Therapist arranged a meeting with a current member and client had a phone conversation with this member during a 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– Results

• 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

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Psychiatric Comorbidity TSF Linkage: Efficacy Intensive 12-step referral (Timko et al.)

- Timko et al. (2011; N=287): standard vs. intensive referral condition
- Patients in the intensive referral group were more likely to attend and be involved in dual-focused mutual-help groups (DFGs) and substance-focused mutual-help groups (SFGs), and had less drug use and better psychiatric outcomes at follow-up
- Only 23% of patients in the intensive-referral group attended a DFG meeting during the six-month follow-up period, while 85% attended a
Conclusions

» Formal treatment for SUD has increased in quality and quantity in the past 40 yrs
» Paralleled by prodigious increase in both 12-step organizations and others
» Increasingly rigorous scientific research has revealed organizations, such as AA/NA, can potentiate treatment effects; extend treatment and recovery benefits over the long-term
» Participation in these organizations appears to help by facilitation adaptive social network changes and by enhancing self-efficacy in coping with high risk social situations/negative affect and among more severe patients by reducing negative affect and increasing self-efficacy in coping with negative affect
» Proactive clinical TSF may reduce health care costs by reducing reliance on professional services and increasing reliance on community 12-step resources and may enhance recovery outcomes
» A variety of empirically supported clinical interventions are now available that can enhance the likelihood that patients will utilize and benefit from these free and widely available recovery resources