50 Years of Addiction Policy, Research and Treatment: The Paradigm Shift Toward Long-Term Recovery Management

25th Anniversary Presentation
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No disclosures.

Content presented here represents the views of the presenter/author and do not necessarily represent the views of any other associated entity.
Outline

- Alcohol/drugs – top public health problem
- Policy Approaches and conceptualizations
- Long-Term Recovery Management Rationale
- Recovery Support Services
Outline

Alcohol/drugs – top public health problem

Policy Approaches and conceptualizations

Long-Term Recovery Management Rationale

Recovery Support Services
70,237 Overdose deaths in the U.S. In 2017

3 waves of the rise in opioid overdose deaths

- Wave 1: rise in prescription opioid overdose deaths
- Wave 2: rise in heroin overdose deaths
- Wave 3: rise in synthetic opioid overdose deaths

Other synthetic opioids
- e.g. Tramadol and Fentanyl, prescribed or illicitly manufactured

Commonly prescribed opioids
- Natural & semi synthetic opioids and methadone

70,237 Overdose deaths in the U.S. In 2017
It is estimated that every year, 88,000 Americans die of alcohol-related causes.
3 million deaths from harmful use of alcohol every year.
U.S. Economic Burden

• $600 Billion annually...
  ○ Lost productivity
  ○ Healthcare costs
  ○ Criminal justice
What have we done about it?

What are we doing about it?

How can we do better?
Outline

- Alcohol/drugs – top public health problem
- Policy Approaches and conceptualizations
- Long-term Recovery Management Rationale
- Recovery Support Services
Degree of Problems Associated with Various Policy Approaches to Addressing the Drug Problem

Source: Canada Drug Policy Coalition, 2015
PUBLIC HEALTH MODEL

INDIVIDUAL HOST

Decreased risk perception
Increased safety perception

AGENT

Increased accessibility
And availability
Lower cost

ENVIRONMENT

Manufacture
Dissemination
Legality
Prescribing
During the past 50 yrs since “War on Drugs” declared, we have moved from “Public Enemy No. 1” to “Public Health Problem No. 1”
With 5% of the world’s pop, the US has 25% of its prisoners. Avg US cost per prison inmate = (2010) = $31K (range 14K-60K); about $16 Billion for the 500,000 drug-related prisoners (20% of all prisoners)
Prisons overcrowding: 20% (500,000) of US prisoners are in prison due to drug offences

Photo: California Department of Corrections
Laws passed in the past 50 yrs have moved from more punitive ones to public health oriented ones.... increasing availability, accessibility and affordability of treatment.
ONDCP Hosts First-Ever Drug Policy Reform Conference
DECEMBER 11, 2013 AT 10:57 AM ET BY CAMERON HARDESTY

On Monday, Director Kerlikowske and Deputy Director Botticelli kicked off an unprecedented discussion at the White House on the future of drug policy. Braving a snowy D.C. morning, approximately 140 people attended to engage in a conversation on drug policy reform and hundreds more watched online. Limited video on demand is available here.

2013 ONDCP Director Kerlikowske declares move away from “war on drugs” toward broader public health approach
Past 50 years gone from...

War on drugs

War on the war on drugs

BUT... not just about interdiction, supply reduction, incarceration....

Also, a great deal carried out on the demand reduction side...
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
Genetics, Genomics, Pharmacogenetics
Neuroscience: Neural plasticity
ADDICTION IS A COMPLEX DISORDER

RISK FACTORS

Biology/Genes
- Genetics
- Gender
- Mental Health
- Route of administration
- Effect of drug itself

Environment
- Chaotic home and abuse
- Parent’s use and attitudes
- Peer influence
- Community attitudes
- Poor school achievement

Drug
- Early use
- Availability
- Cost

Brain Mechanisms

Addiction
# Stages of Change

## Related Treatment & Recovery Support Services

<table>
<thead>
<tr>
<th>Stages</th>
<th>Precontemplative</th>
<th>Contemplative</th>
<th>Preparation</th>
<th>Action</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In this stage,</strong> individuals are not even thinking about changing their behavior. They do not see their addiction as a problem; they often think others who point out the problem are exaggerating.</td>
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<td><strong>In this stage,</strong> people are more aware of the personal consequences of their addiction &amp; spend time thinking about their problem. Although they are able to consider the possibility of changing, they tend to be ambivalent about it.</td>
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<td><strong>In this stage,</strong> people have made a commitment to make a change. This stage involves information gathering about what they will need to change their behavior.</td>
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<td><strong>In this stage,</strong> individuals believe they have the ability to change their behavior &amp; actively take steps to change their behavior.</td>
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<tr>
<td><strong>In this stage,</strong> individuals maintain their sobriety, successfully avoiding temptations &amp; relapse.</td>
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</table>

### Harm Reduction
- Emergency Services (e.g., Narcotic Treatment)
- Needle Exchanges
- Supervised Injection Sites

### Screening & Feedback
- Brief Advice
- Motivational Interventions

### Screening, Brief Intervention, & Referral to Treatment (SBIRT)

### Clinical Interventions
- Pharmacological (e.g., Naltrexone, methadone, buprenorphine)
- Psychological (e.g., Cognitive Behavioral Therapy)

### Non-Clinical Interventions
- Self-Management/Biological Recovery
- Self-Help Books, Online Resources
- Mutual Help Organizations
- Alcoholics Anonymous, SMART Recovery, Lifeline Supportive Recovery
- Community Support Services

### Continuing Care (1-2 years)
- Recovery Management
- Checkups, Telephone Counseling, Mobile Applications, Text Message Interventions

### Recovery Monitoring (1-5+ years)
- Continued Recovery Monitoring
- Checkups, Telephonic Support, Primary Care Provider Visits
What people really need is a good listening to…
“Quitting smoking is easy, I’ve done it dozens of times”
–Mark Twain
Swift, certain, modest, rewards shape behavioral choices...
Effective Medications
Harm Reduction Strategies

• Anti-craving/anti-relapse medications ("MAT")
• Overdose reversal medications (Narcan)
• Needle exchange programs
• Heroin prescribing
• Safe Injection Facilities/Safe Consumption sites/Overdose prevention facilities
The clinical course of addiction and achievement of stable recovery can take a long time...

- Addiction Onset: 4-5 years
- Help Seeking: 8 years
- Full Sustained Remission (1 year abstinent): 5 years
- Relapse Risk drops below 15%
- Self-initiated cessation attempts
- 4-5 Treatment episodes/mutual-help
- Continuing care/mutual-help

Recovery Priming
Recovery Mentoring
Recovery Monitoring
Focus on Recovery

• Bill White for decades has talked about understanding more about recovery from the tens of millions already in recovery—untapped resource.

• Whole libraries/volumes written about etiology, epidemiology, and treatment, but little about recovery...

• A lot might be learned from the millions of people already successfully in long-term recovery; how they did it; what helped, made the difference.
Outline

- Alcohol/drugs – top public health problem
- Policy Approaches and conceptualizations
- Long-Term Recovery Management Rationale
- Recovery Support Services
The clinical course of addiction and achievement of stable recovery can take a long time ... but most achieve remission.

- Addiction Onset
- Help Seeking
- Full Sustained Remission (1 year abstinent)
- Relapse Risk drops below 15%

4-5 years
8 years
5 years

Self-initiated cessation attempts
4-5 Treatment episodes/mutual-help
Continuing care/mutual-help

Recovery Priming
Recovery Mentoring
Recovery Monitoring

50-60% of individuals with addiction will achieve full sustained remission.
Recovery Indices by Years Since Problem Resolution

- Quality of Life
- Psychological Distress
- Happiness
- Self Esteem
- Recovery Capital
Recovery Indices by Years Since Problem Resolution

- Inflection point at around 5 yrs

- Quality of Life
- Psychological Distress
- Happiness
- Self Esteem
- Recovery Capital
Recovery Indices by Years Since Problem Resolution

15yrs

Same QOL as gen. pop. not achieved until around 15yrs
Recovery Indices by Years Since Problem Resolution

Years 0-5

Years 0-2

- Quality of Life
- Psychological Distress
- Happiness
- Self Esteem
- Recovery Capital
Traditional Addiction Treatment Approach: Burning Building Analogy

- **Putting out the fire** – good job
- **Preventing it from re-igniting** (RP) – less emphasis
- **Architectural planning** (recovery plan) – neglected
- **Re-building materials** (recovery capital) – neglected
- **Granting “rebuilding permits”** – (removing barriers)
Why are treatments of addiction & hypertension evaluated differently?

The successful treatment of hypertension is seen as an ongoing process. The successful treatment of addiction is seen as something that begins after treatment stops.
Circuits Involved in Drug Use and Addiction

All of these brain regions must be considered in developing strategies to effectively treat addiction.

Key:
PFC: prefrontal cortex
ACG: anterior cingulate gyrus
OFC: orbitofrontal cortex
SCC: subcallosal cortex
NAc: nucleus accumbens
VP: ventral pallidum
Hipp: hippocampus
Amyg: amygdala
HUMAN BRAIN IMAGES

<table>
<thead>
<tr>
<th>Moderate Drinker</th>
<th>Alcoholic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal 43-year-old</td>
<td>Alcoholic 43-year-old</td>
</tr>
</tbody>
</table>

Axial magnetic resonance images from a healthy 57-year-old man (left) and a 57-year-old man with a history of alcoholism (right). D. Pfefferbaum
Post-Acute Withdrawal Effects:

• More stress and lowered ability to experience normal pleasures

  Increased sensitivity to stress via...
  • Increased activity in hypothalamic-pituitary-adrenal axis (HPA-axis) and CRF/Cortisol release

  Lowered ability to experience normal levels of reward via...
  • Down-regulated dopamine D2 receptor volume increasing risk of protracted dysphoria/anhedonia and relapse risk
To help offset long-term relapse risk, a number of indigenous community-based treatment and recovery support services have emerged and grown; these help build “recovery capital” to sustain remission.
Neuroscience of Recovery Capital

• If addiction is a disease of the brain could jobs, recovery housing, and friends, change the brain, upregulate down-regulated receptor systems, and increase the chances of long-term remission?
Social Relationships and Mortality Risk: A Meta-analytic Review

Julianne Holt-Lunstad 1*, Timothy B. Smith 2*, J. Bradley Layton 3

1 Department of Psychology, Brigham Young University, Provo, Utah, United States of America, 2 Department of Counseling Psychology, Brigham Young University, Provo, Utah, United States of America, 3 Department of Epidemiology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States of America

Abstract

Background: The quality and quantity of individuals’ social relationships has been linked not only to mental health but also to both morbidity and mortality.

Objectives: This meta-analytic review was conducted to determine the extent to which social relationships influence risk for mortality, which aspects of social relationships are most highly predictive, and which factors may moderate the risk.

Data Extraction: Data were extracted on several participant characteristics, including cause of mortality, initial health status, and pre-existing health conditions, as well as on study characteristics, including length of follow-up and type of assessment of social relationships.

Results: Across 148 studies (308,849 participants), the random effects weighted average effect size was OR = 1.50 (95% CI 1.42 to 1.59), indicating a 50% increased likelihood of survival for participants with stronger social relationships. This finding remained consistent across age, sex, initial health status, cause of death, and follow-up period. Significant differences were found across the type of social measurement evaluated (p < 0.001); the association was strongest for complex measures of social integration (OR = 1.91; 95% CI 1.63 to 2.23) and lowest for binary indicators of residential status (living alone versus with others) (OR = 1.19; 95% CI 0.99 to 1.44).

Conclusions: The influence of social relationships on risk for mortality is comparable with well-established risk factors for mortality.

Please see later in the article for the Editors’ Summary.
Social Buffering

- Stress-buffering effects of social relationships— one of the major findings of past century
- Mechanisms of this poorly understood
...and researchers have started to examine possible neurobiological connections between social support and individual stress responses.
D2/D3 RECEPTOR BINDING & SOCIAL STATUS AND SUPPORT

AIM
Assess whether $D_{2/3}$ receptor levels correlate with social status and social support (particularly, to determine if low social status and low social support correlate with low $D_{2/3}$ receptor binding)

SAMPLE
N = 14 healthy participants (i.e., non-smoking with no Axis I disorders, significant medical conditions, or use of medications before the scan) who were scanned using positron emission tomography (PET) imaging to measure $D_{2/3}$ receptor binding potential (BP)

MEASURES
• Barratt Simplified Measure of Social Status (BMSSS) to measure social status
• Scale of Perceived Social Support (MSPSS) to measure social support
• $[^{11}C]$raclopride to measure $D_{2/3}$ receptor binding in the striatum

OUTCOMES
• Positive correlation between $D_{2/3}$ receptor binding potential and social status
• Positive correlation between $D_{2/3}$ receptor binding potential and perceived social support
• Results similar to prior studies of nonhuman primates, which show higher $D_{2/3}$ receptor levels in monkeys who are dominant in their social hierarchy, compared to those who are subordinate

D2/D3 receptor binding increases as **social status** increases.

D2/D3 receptor binding increases as **social support** increases.

**Figure 1.** Correlation between [11C]raclopride BP (x axis) and social status, measured with the Barratt Simplified Measure of Social Status (BSMSS). A positive correlation was seen, where higher BP correlated with higher BSSMSS \((r = .71, p = .004,\) age-corrected \(p = .007)\). BP, binding potential.

**Figure 2.** Correlation between [11C]raclopride BP (x axis) and score on the Multidimensional Scale of Perceived Social Support (MSPSS). A positive correlation was seen, where higher BP correlated with higher score on the MSPSS \((r = .73, p = .005,\) age-corrected \(p = .02)\). BP, binding potential.
Monkeys, like humans, love to be with each other, and also like cocaine...

Disruption of the dopaminergic system has been implicated in the etiology of many pathological conditions, including drug addiction. Here we used positron emission tomography (PET) imaging to study brain dopaminergic function in individually housed and in socially housed cynomolgus macaques (n = 20). Whereas the monkeys did not differ during individual housing, social housing increased the amount or availability of dopamine D₂ receptors in dominant monkeys and produced no change in subordinate monkeys. These neurobiological changes had an important behavioral influence as demonstrated by the finding that cocaine functioned as a reinforcer in subordinate but not dominant monkeys. These data demonstrate that alterations in an organism’s environment can produce profound biological changes that have important behavioral associations, including vulnerability to cocaine addiction.
The Importance of Social Context, Control Over Environment, and Relapse Risk

- When all monkeys were individually housed no difference in DA D2 receptor volume
- After 3 months of social housing, dominant monkeys showed 22% increase in DA D2 volume; subordinate monkeys - no change
- Increase in DA D2 associated with lower likelihood of cocaine use
- “Dominance” defined as: easy access to food and water, social mobility, and greater environmental control.
- Human Implications: facilitating greater access to and availability of recovery capital may instill hope, empower people, help them have more control over environment, increase social contact/social mobility, and thereby induce neurochemical changes reducing relapse risk

<table>
<thead>
<tr>
<th>Social rank</th>
<th>[18F]FCP distribution volume ratios</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individually housed</td>
<td>Socially housed</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>$2.58 \pm 0.13$</td>
<td>$2.99 \pm 0.13$</td>
</tr>
<tr>
<td>3</td>
<td>$2.58 \pm 0.13$</td>
<td>$2.88 \pm 0.30$</td>
</tr>
<tr>
<td>4</td>
<td>$2.40 \pm 0.06$</td>
<td>$2.49 \pm 0.10$</td>
</tr>
</tbody>
</table>

Mean ± s.e.m. [18F]FCP DVR as determined with PET imaging in male cynomolgus monkeys as a function of social rank while individually and socially housed. For individually housed scans, these numbers represent eventual social rank. Significantly higher than individually housed ‘dominants.’ Significantly higher than socially housed subordinates.
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...
RSS Goal

RSS → Remission + Enhanced QOL
RSS Mechanisms

RSS → Recovery Capital → Bio Psycho Social Spiritual Change → Remission + Enhanced QOL
Outline

- Alcohol/drugs – top public health problem
- Policy Approaches and conceptualizations
- Long-Term Recovery Management Rationale
- Recovery Support Services
Mutual-Help Organizations
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/buddy 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...

<table>
<thead>
<tr>
<th>Four main reasons why people <strong>START</strong> taking drugs</th>
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</thead>
<tbody>
<tr>
<td>• To feel good</td>
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<tr>
<td>• To feel better</td>
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<tr>
<td>• To do better</td>
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<tr>
<td>• Because other people are doing it</td>
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Paradox in Onset and Offset of Substance Use... 

<table>
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<tr>
<td>• To feel good</td>
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<tr>
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</tr>
<tr>
<td>• To do better</td>
</tr>
<tr>
<td>• Because other people are <em>(not)</em> doing it</td>
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</tbody>
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Overarching Principles at play within and across MHOs...

<table>
<thead>
<tr>
<th>Principle</th>
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<tbody>
<tr>
<td>Universality</td>
</tr>
<tr>
<td>Instillation of Hope</td>
</tr>
<tr>
<td>Catharsis</td>
</tr>
<tr>
<td>Cohesion</td>
</tr>
<tr>
<td>Imparting of Information</td>
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<tr>
<td>Altruism</td>
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<tr>
<td>Imitative Behavior</td>
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<tr>
<td>Socialization Techniques</td>
</tr>
<tr>
<td>Existential Factors</td>
</tr>
<tr>
<td>Interpersonal Learning</td>
</tr>
<tr>
<td>Self-Understanding/insight</td>
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</tbody>
</table>

Source: Yalom, 1995
Alcoholics Anonymous and other 12-step programs for alcohol use disorder (Protocol)

Kelly JF, Humphreys K, Ferri M
TSF Compared to Different Theoretical Orientation Treatments (RCTs all Manualized)
TSF Compared to Different Theoretical Orientation Treatments (RCTs all Manualized)

% COMPLETELY ABSTINENT

STUDY

- Davis 2002*
- Litt 2007*
- Litt 2009*
- Litt 2016
- MATCH 1997a*
- MATCH 1998a*
- MATCH 1998b*
- Kelly 2017
- McCrady 1999*

- TSF
- COMP TX 1
- COMP TX 2
- Relative Advantage
Compared to CBT-treated patients, 12-step treated patients more likely to be abstinent, at a $8,000 lower cost per pt over 2 yrs ($10M total savings)

Also, higher remission rates, means decreased disease and deaths, increased quality of life for sufferers and their families
Empirically-supported MOBCs through which AA confers benefit

AA participation in turn is explained by these factors which are similar to the mechanisms operating in formal treatment...
12-Step Alternatives

Main Findings

SMART RECOVERY RCT

• 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.
Expanding the science on recovery mutual aid for alcohol use disorder: An investigation of SMART Recovery

This study seeks to evaluate the potential clinical and public health utility of SMART Recovery in supporting continuing care.
Expanding the science on recovery mutual aid for alcohol use disorder: An investigation of SMART Recovery

- **Quasi-experimental** study
- **N = 348** participants
- **One enrollment visit** to our office (2-3 hours, $45)
- **Six follow-up visits** over the course of two years (~2 hours, up to $410)
  - 3-, 6-, 9-, 12-, 18-, 24-month follow-ups
- **Assessments include:**
  - Staff-administered surveys (e.g., substance use, mental health)
  - Self-administered survey (e.g., demographics, coping skills)
  - Biological tests (i.e., breathalyzer, urine screen)
  - Participation is anonymous and confidential

First rigorous, real-world evaluation of SMART providing objective estimates of recovery benefit
Expanding the science on recovery mutual aid for alcohol use disorder: An investigation of SMART Recovery

<table>
<thead>
<tr>
<th>AUD Severity</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Total</th>
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<td>N=29</td>
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<td>N=116</td>
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<td>N=29</td>
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<td>N=87</td>
<td>N=87</td>
<td>N=87</td>
<td>N=348</td>
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Pathways

- AA only
- SMART only
- AA & SMART
- Neither AA or SMART

Total N=348
Eligibility Criteria

- Over the age of 18
- Has an alcohol use disorder
- People who began a new recovery attempt from alcohol use in the past 90 days or plan to make a new recovery attempt in the next 14 days
- Willing to make seven visits to our Boston office over the course of two years

WANT TO PARTICIPATE?

Who is eligible?
- People who began a new recovery attempt from alcohol use in the past 90 days or plan to make a new recovery attempt in the next 14 days
- Over the age of 18
- Willing to make seven visits to our Boston office over the course of two years

What does the study involve?
- One enrollment visit to our office (2-3 hours, $45)
- Six follow-up visits over the course of two years (~2 hours, up to $410)
- Participation is anonymous and confidential
- Biological tests (i.e., breathalyzer, urine screen)

How can I get started?
- Call (617) 643-9850 or email MGHsmartstudypartners.org

Principal Investigator: John F. Kelly, Ph.D.
Massachusetts General Hospital, Recovery Research Institute
Contact: (617) 643-9850 or MGHsmartstudypartners.org
Expanding the science on recovery mutual aid for alcohol use disorder: An investigation of SMART Recovery

Participant Benefit

• Study is purely observational and does not provide treatment

• Participation enables valuable contribution to the field that may help SMART affiliates achieve and maintain remission from addiction
Peer-Based Recovery Supports
Peer-Based RSS

**Origin & Scope**

- Peer-based RSS represent a new category of specialized resources that are not treatment and not purely mutual aid, which link and supplement traditional addiction treatment and mutual aid recovery programs.
- First arising in the 1990s, peer-based RSS were born out of a long tradition of 12-step based mutual-support groups.

**Settings**

- Peer-based RSS have seen uptake across a diverse range of substance use disorder (SUD) treatment settings, and are now utilized across the continuum of SUD care, emerging as a critical component of recovery management (White, 2009; White & Evans, 2014).

**Function**

- Peer-based RSS support patients’ transition between levels of care, in addition to connecting patients with community-based recovery support services and mutual aid organizations in ways not possible for conventional providers (Valentine, 2010; White & Evans, 2014).
Emerging evidence suggests peer-based RSS can help connect people to SUD treatment, reduce substance use, and increase treatment engagement and adherence.

**Main Findings**

**THOSE RECEIVING PEER-BASED RSS**

- More likely to abstinent from alcohol and other drugs at post-treatment follow-up [Bernston et al., 2005; Rowe et al., 2007; Blondell et al., 2008; Boisvert et al., 2008]
- Greater outpatient SUD treatment attendance, and general medical, and mental health services appointment adherence [Tracey et al., 2011]
- Greater utilization of substance use treatment services [Tracey et al., 2011; Deering et al., 2011]
- More likely to report that they had attended self-help group meetings in the first week following detoxification discharge [Blondell et al., 2008]
- Felt more emotional, informational, tangible and affectionate support in treatment [Blondell et al., 2008; Sanders et al., 1998]
Recovery Residences
Recovery Residences Origin & Scope

- **Recovery residence** is a broad term that encompasses various models of abstinence based living environment with peer-to-peer recovery support.
- **Models** of recovery residences that met inclusion criteria of RCT or quasi experimental: Oxford House, Recovery Housing, Sober Living Houses, Halfway Houses
- **Levels** of recovery residences are defined by the National Association of Recovery Residences (NARR) according to standards of support.

### Course of Recovery

- **Acute care (inpatient, medical, psychiatric)**
  - Level 4
  - Level 3
  - Level 2
  - Level 1

- **Recovery residences: Enter at any level**

  - **Service Intensity**
    - High
    - Low

  - **long-term recovery: Independent, meaningful living in the community**

source: www.narronline.com
Variations on a theme:
overarching goal to provide a safe/sober living environment with other peers in recovery and to support and sustain remission and increase recovery capital (principles are likely similar/practices may differ)
Societal Benefits of Oxford Houses

- **Sample**: 150 individual completing treatment in the Chicago metropolitan area
- **Design**: Randomized controlled trial
- **Intervention**: Oxford House vs. community-based aftercare services (usual care)
- **Follow-up**: 2 years
- **Outcome**: Substance use, monthly income, incarceration rates

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Oxford Houses are democratic, mutual help–oriented recovery homes for individuals with substance abuse histories. There are more than 1200 of these houses in the United States, and each home is operated independently by its residents, without help from professional staff.

In a recent experiment, 150 individuals in Illinois were randomly assigned to either an Oxford House or usual-care condition (i.e., outpatient treatment or self-help groups) after substance abuse treatment discharge. At the 24-month follow-up, those in the Oxford House condition compared with the usual-care condition had significantly lower substance use, significantly higher monthly income, and significantly lower incarceration rates. (Am J Public Health. 2006;96:1727–1729. doi:10.2105/AJPH.2005.070839)
Sober Living Environments are Effective… Oxford House vs. Usual Care

Sober living had –
• half as many individuals using substances across 2 yr follow up as usual care
• 50% more likely to be employed
• 1/3 re-incarceration rate
...and, cost-effective
Mean per-person societal benefits and costs

Net benefit for Oxford House per participant: $29,022.00

Dollars

<table>
<thead>
<tr>
<th></th>
<th>Oxford House</th>
<th>Usual Care</th>
<th>Difference (benefits - costs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-month total costs</td>
<td>$20,000</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>24-month benefits</td>
<td>$10,000</td>
<td>$20,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Difference</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

Net benefit for Oxford House per participant: $29,022.00
Recovery Community Centers
There are currently more than 80 centers operating nationally.
Principles of RCCs

Source of recovery capital at the community level

- Provide different services than formal treatment
- Offer more formal and tangible linkages to social services, employment, training and educational agencies than do mutual-help organizations

There are many pathways to recovery

- RCCs are not allied with any specific recovery philosophy or model
Services Offered

- Mutual-Help Meetings
- Telephone Recovery Support
- Recovery Coaching
- Family Support Groups
- Recovery Trainings
- Recreational Activities
- Access to Resources
## Recovery Community Centers

### Summary Table

<table>
<thead>
<tr>
<th>Article</th>
<th>Sample size (N), Gender (% female)</th>
<th>Follow-ups</th>
<th>Retention rate</th>
<th>Primary substance</th>
<th>Substance use and related outcomes (include effect size, if applicable)</th>
</tr>
</thead>
</table>
| Haberle, Conway, Valentine, Evans, White & Davidson, 2014 | N = 385 (F = 50%, M = 50%) | 6 months | 6%, combined recruitment and retention rate from overall population | Any | • Stability on abstinence and mental health symptoms  
• Increases on independent living conditions (53% owning/renting vs. 30%), employment (22% full-time vs. 10%; 16% part-time vs. 11%), income (41% vs. 21% from wages) |
| Mericle, Cacciola, Carise & Miles, 2014 | N = 290 (F = 34%, M = 66%) | 6 months | 90% | Any | • Less likely to use substances at 6-month follow-up (OR=0.5 for alcohol, 0.4 for drugs)  
• Gains in employment status (5% vs. 14%) |
| Armitage, Lyons & Moore, 2010 | N = 55 (F = not reported, M = not reported) | 6 months | Not reported | Any | • 86% reported being abstinent from alcohol and drugs  
• High service satisfaction, with 89% rating services as helpful and 92% rating provided materials as helpful |

• For all three studies:  
  • **Study design** = “single-group prospective”  
  • **Intervention** = “use of RCC”  
  • **Participants** = “RCC participants”
Recovery Community Centers

**Main Findings**

**Limitations**

- To date, **only 3 papers** reporting outcome data on RCCs
- In 2/3 papers, **unclear recruitment and/or retention rates**

**Outcomes**

- Current evidence suggests that **RCCs are effective in**:
  - maintaining or enhancing abstinence
  - attain important vocational and educational shifts

**More evidence urgently needed,** especially evidence that:

- Uses **group-comparison** designs
- Assesses **additional outcomes** (e.g., quality of life)
- Tracks **recruitment and retention** rigorously
Model of How RCCs Work: Findings from the First Study on U.S. RCCs
Education Based Recovery Support Services
Education-Based RSS

*Origin & Scope*

- Includes recovery high schools (RHS) & collegiate recovery programs (CRP), both of which have grown in recent years
- Emerged in 1970s (CRP) 1980s (RHS) to support students in their recovery while also helping them achieve their academic goals[1]

**Recovery High Schools**

- Range from 2 – 115 students[2]
- Exist as independent schools and programs within another school[3]
- Are professionally led
- No single model for RHS
- Estimated 40 RHSs currently in operation in U.S.[4]

**Collegiate Recovery Programs**

- Range from 10 – 50 students[5-6]
- Are peer driven, with limited professional staff
- No single model for CRP
- Estimated 50 CRPs in development or operation in U.S.[7]
Recovery High School Participation Effects Compared to Non-recovery High School

• Methods: Quasi-experiment comparing outcomes for treated adolescents who attended RHSs for at least 28 days

• N=194 (134 in RHSs, 60 in non-RHSs) enrolled in Minnesota, Wisconsin, or Texas schools (M age = 16; 86% White; 49% female).

• Results: Adolescents attending RHSs 4x more likely than non-RHS students to report complete abstinence from alcohol, marijuana, and other drugs at the 6-month follow-up (OR = 4.36, p = .026), significantly lower levels of marijuana use (d = −0.51, p = .034) and less absenteeism from school (d = −0.56, p = .028).
Collegiate Recovery Programs

• There are almost 50 CRPs recognized by Association of Recovery in Higher Education (ARHE)

• Data in two model programs suggests relapse rates are very low at approximately 4% to 13% in any given semester

Laudet et al., 2014
Continuing Care Interventions
Recovery Management Check-ups

4-year outcomes from the Early Re-Intervention experiment using Recovery Management Checkups

• N=446 adults with SUD, mean age = 38, 54% male, 85% African-American
  • randomly assigned to two conditions:
    • quarterly assessment only
    • quarterly assessment plus RMC

• Recovery Management Checkups
  • Linkage manager who used MI to review participant's substance use, discuss treatment barrier/solutions, schedule an appointment for treatment re-entry, and accompany participant through the intake
  • If participants reported no substance use in previous quarter, linkage manager reviewed how abstinence has changed their lives and what methods have worked to maintain abstinence

Source: Dennis & Scott (2012). Drug and Alcohol Dependence, 121, 10-17
Results 1

Return to treatment

• Participants in RMC condition sig. more likely to return to treatment sooner

Of 18 vars tested, the only variables that predicted return to treatment was the intervention

Source: Dennis & Scott (2012). Drug and Alcohol Dependence, 121, 10-17
RMCs are a cost-effective and potentially cost-saving Strategy for promoting abstinence and reducing substance use-related problems among chronic cases of SUD.
Summary

• We’ve come a long way in the past 50yrs since the declaration of the War on Drugs
• Paradigms have shifted as we have learned more about the nature, onset, course, and onset of SUD/addiction
• RSSs such as SMART Recovery open up new pathways to recovery and can enhance and extend the effects of professionally-delivered care by:
  o Helping change social networks towards those that model and support recovery in the communities in which people live
  o Helping build resilience, buffer stress, and increase recovery coping, confidence and motivation over the long-term
  o Help individuals build further “recovery capital” by providing supports in high risk educational environments like colleges/high schools, providing linkages to employment opportunities, and health/social services (e.g., RCCs)
  o Providing ongoing recovery-specific support at little cost reducing burden on professional health services while enhancing remission rates, thereby reducing health care costs.
Congratulations
SMART Recovery
on 25 years of
growth and
service!!!