Mindfulness-Based Treatments for Alcohol and Substance Use Disorders

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Overview of Clinical Teleconference

- Theoretical and empirical foundations underlying a mindfulness-based approach to the treatment of substance use disorders.
- The key practices, adaptations, and challenges of mindfulness practices for use with alcohol and drug users.
- How to implement mindfulness-based practices into the clinical treatment of alcohol and substance use disorders and basic principles for conducting mindfulness-based intervention research.
“Quitting is not nearly as difficult as staying quit.”

~ Marlatt et al. (2002)
Defining Relapse
The Relapse Cycle

1. Trigger
2. Discomfort or Wanting
3. Craving
4. Addictive Behavior

- Seeking relief, Craving pleasure
- Temporary alleviation
- Fear, Hopelessness
- Guilt, “I’m a failure”, Shame
Points of intervention

- Raise awareness of trigger
- Discomfort or Wanting
  - Change reaction to trigger
- Craving
  - Change reaction to craving
- Addictive Behavior
  - Change reaction to use

Triggers:
- Change reaction to trigger
- Raise awareness of discomfort
- Raise awareness of craving
- Raise awareness of first use

Thoughts:
- Seeking relief, craving pleasure, temporary alleviation

Reactions:
- Change reaction to discomfort
- Change reaction to craving
- Change reaction to use

Addiction:
- Guilt, hopelessness
  - “I’m a failure”

References:
- Temptation of reaction
Practicing Mindfulness

"If your attention wanders a hundred times, simply bring it back a hundred times."

Observe
- mind on chosen target

Attention Wanders

Observe wandering, begin again

Present Moment

Nonjudgmentally

Paying Attention
Mindfulness Meditation?

Meditation practice associated with...

- changes in brain structure, function, and connectivity
- increased attentional control
- improved physical health and immune function
- enhanced self-awareness
- greater self-regulation of emotional reactions
- reductions in perceived stress
Mindfulness for Addiction

**Paying attention**
Greater awareness of triggers and responses, interrupting previously automatic behavior

**Nonjudgmentally**
Detach from attributions and “automatic” thoughts that often lead to relapse

**In the present moment**
Accepting present experience, rather than “getting a fix” to avoid the present experience
Empirical Evidence

- Numerous mindfulness based treatments for substance use disorders have been developed and demonstrated efficacy:
  - Mindfulness-Based Relapse Prevention (MBRP; Bowen et al 2009, 2014; Witkiewitz et al 2014)
  - MBRP for Women (Amaro et al., 2014)
  - Mindfulness-Based Substance Abuse Treatment for Adolescents (Himelstein et al., 2015)
  - Mindfulness Training for Smokers (Davis et al., 2014)
  - Mindfulness Training for Smoking (Brewer et al., 2011)
  - Mindfulness-Based Addiction Treatment (Vidrine et al., 2016)
  - Mindfulness Oriented Recovery Enhancement (Garland et al., 2014)
Mindfulness-Based Relapse Prevention (MBRP)

- Mindfulness practices with relapse prevention skills training
  - Mindfulness-Based Stress Reduction (Kabat-Zinn, 1990), Mindfulness-Based Cognitive Therapy (Segal et al. 2002)

- Format
  - Aftercare or post-stabilization
  - Group format, 8 weekly 2 hr. sessions
  - Daily home practice

Bowen, Chawla & Marlatt (2011); Witkiewitz, Marlatt & Walker (2005)
Mindfulness Based Relapse Prevention

Components of MBRP:

- **Formal mindfulness practice**
  - Breathing, walking meditation
  - Body scan, mindful movement
  - Mountain meditation
  - Loving kindness

- **Informal practice**
  - Mindfulness in daily life
  - SOBER breathing space
  - Urge surfing

- **Relapse prevention coping skills training**

http://www.mindfulrp.com
Three RCTs of MBRP for Substance Use Disorder: Intervention Groups

<table>
<thead>
<tr>
<th>Mindfulness-based relapse prevention (MBRP)</th>
<th>Relapse prevention (RP)</th>
<th>Treatment-as-“usual” control (TAU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Skills training</td>
<td>- Cognitive-behavioral skills training</td>
<td>- Psychoeducation</td>
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<tr>
<td>- Mindfulness meditation practices</td>
<td></td>
<td>- Relapse prevention</td>
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<td></td>
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<td>- 12-step groups</td>
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## Three RCTs of MBRP for Substance Use Disorder: Study Characteristics

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<tr>
<th>Pilot Efficacy Trial</th>
<th>Hybrid Efficacy Trial</th>
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<tbody>
<tr>
<td>Community treatment aftercare</td>
<td>Residential treatment female criminal offenders</td>
<td>Community treatment aftercare</td>
</tr>
<tr>
<td>N = 168</td>
<td>N = 105</td>
<td>N = 268</td>
</tr>
<tr>
<td>64% male; Avg age=40</td>
<td>100% female; Avg age=33</td>
<td>72% male; Avg age=40</td>
</tr>
<tr>
<td>52% white, 29% African American, 8% Native American</td>
<td>64% white, 17% African American, 13% Native American, 2% Hispanic</td>
<td>51% white, 27% African American, 7% Native American</td>
</tr>
<tr>
<td>46% alcohol, 36% crack, 14% meth, 7% opiates, 19% polysubstance</td>
<td>36% meth, 22% opiates, 19% cocaine, 10% alcohol, 7% marijuana, 5% other drugs</td>
<td>13% alcohol, 1% crack, 1% meth, 1% opiates, 82% polysubstance</td>
</tr>
<tr>
<td>2-, 4-month follow-ups</td>
<td>4-month follow-up</td>
<td>2-, 4-, 6- and 12-month follow-ups</td>
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</table>

Bowen et al 2009. *Substance Abuse*  
Witkiewitz et al 2014. *Substance Use and Misuse*  
Bowen et al 2014. *JAMA Psychiatry*
# Three RCTs of MBRP for Substance Use Disorder: Study Findings

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<td>MBRP greater reductions in drug use and drinking days from baseline to follow-up</td>
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</tr>
<tr>
<td>Pre-post effect size:</td>
<td>Pre-post effect size:</td>
<td>Pre-post effect size:</td>
</tr>
<tr>
<td>- MBRP d = 1.17</td>
<td>- MBRP d = 0.45</td>
<td>- MBRP d = 1.94</td>
</tr>
<tr>
<td>- TAU d = 1.05</td>
<td>- RP d = 0.40</td>
<td>- RP d = 1.99</td>
</tr>
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<td>MBRP vs TAU d = .27</td>
<td>MBRP vs RP d = .36</td>
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<tr>
<td></td>
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<td>MBRP vs TAU d = .41</td>
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A dialogue among two female residents in the program:

• New Resident’s Question: “What’s the difference between this mindful stuff and normal treatment?”

• Experienced Resident’s Response: “Listen, we’re all missing something in our souls and we tried filling that missing place up with a bunch of drugs... It didn’t work.... Mindfulness and MBRP helped me look at the empty place for the first time... MBRP gave me the tools to do that and then tools to figure out how I could fill up the missing place by taking care of myself.”
Targeted Mechanisms of MBRP

- **Phasic Risk**
  - Craving
  - Negative affect
  - Stress reactivity

- **Pre-High Risk Situation**
  - Lack of awareness
  - Auto-pilot
  - Judgmental

- **Substance Use**

- **Mindfulness Training**
  - Increase awareness
  - Decrease auto-pilot
  - Decrease judgment
  - Increase kindness
  - Increase self-compassion
  - Decrease reactivity
Changes in craving by group

Bowen et al. (2009). *Substance Abuse*  
Witkiewitz et al. (2013). *Addictive Behaviors*. 
Moderating effect of MBRP on association between depression scores and substance use days.

Witkiewitz & Bowen (2010) *J. Consulting & Clinical Psychology*
Intentions of Mindfulness-Based Treatment

Awareness: Training Attention

• Daily decisions that increase risk
• Internal and environmental triggers
• Seemingly “automatic” reactions
• Recognize and disengage from triggers/craving
Urge Surfing Exercise

“Picture the urge as an ocean wave, and imagine yourself surfing, using your breath as the surfboard...”

Bowen, Chawla & Marlatt (2011)
Intentions of Mindfulness-Based Treatment

Acceptance and Curiosity

- Shift from emotional avoidance to curiosity
- Decrease the need to “fix” discomfort, learning to “stay with” experiences
- Recognize basic needs that often underlie craving
“SOBER” Breathing Space

Stop
Observe
Breath
Expand
Respond
Target of Mindfulness-Based Treatments

Direct Experience

Reactions

Judgement

Worry

Stories
Intentions of Mindfulness-Based Treatment

Self-Compassion and Skillful Action

- Reduce contact with environmental triggers and “depleting” activities
- Increase contact with natural/alternative reinforcers and social support
- Reduce self-judgment
- Increase resilience
Facilitating Mindfulness-Based Treatment Inquiry as “active ingredient”

Direct Experience (pain)

Reactions, Stories, Judgment (suffering)

Adapted from Segal et al., 2002
Facilitating Mindfulness-Based Treatment Inquiry as “active ingredient”

Pain in left knee, Restlessness

Direct Experience (pain)

Reactions, Stories, Judgment (suffering)

“I can’t do this”

Adapted from Segal et al., 2002
Facilitating Mindfulness-Based Treatment Inquiry as active ingredient - urge surfing

1. What did you notice during that exercise?
2. Is that familiar, similar/different?
3. How does this relate to craving, relapse, recovery?

Tearful... “that was hard”... (emotional discomfort)

“I was thinking... I can’t handle this. I need an escape. I need a drink.”

Adapted from Segal et al., 2002
Resources

• [www.mindfulrp.com](http://www.mindfulrp.com)

[Image: Mindfulness-Based Relapse Prevention for Addictive Behaviors by Sarah Bowen, Neha Chawla, G. Alan Marlatt]

[Image: Mindfulness by Katie Witkiewitz, Corey R. Roos, Dana Dharmakaya Colgan, Sarah Bowen]

[Link: https://hogrefe.com/9780889374140]
With gratitude

Sarah Bowen

Neha Chawla Denise Gour Joel Grow

G. Alan Marlatt (1941-2011)

Undergraduate Research Assistants

National Institute on Drug Abuse
Advancing Addiction Science

National Institute on Alcohol Abuse and Alcoholism