Sustain talk in MI predicts drinking outcomes, while change talk talk does not

Timothy R. Apodaca

Collaborators: Brian Borsari, Kristina Jackson, Molly Magill, Richard Longabaugh, Nadine Mastroleo, and Nancy Barnett
A theory of how MI works

MI → Outcome

Miller & Rose, 2009
A theory of how MI works

MI → Therapist Behavior → Outcome

Miller & Rose, 2009
A theory of how MI works

MI

Therapist Behavior

Client language

Outcome

Miller & Rose, 2009
A theory of how MI works

- MI
- Therapist Behavior
- Client language
- Outcome

Miller & Rose, 2009
Therapist Language

MI-Consistent (MICO)
- Affirm
- Emphasize control
- Open question
- Advise/raise concern with permission
- Simple reflection
- Complex reflection
- Support

MI-Inconsistent (MIIN)
- Warn
- Direct
- Confront
- Advise/raise concern without permission
Client Language

**Change Talk (+)**
- Desire
- Ability
- Reasons
- Need
- Taking Steps
- Commitment
- Other

**Sustain Talk (-)**
- Desire
- Ability
- Reasons
- Need
- Taking Steps
- Commitment
- Other
Today’s study
Background

$N = 94$ college students
Average age: 19
Small private college, northeastern US
Violated campus alcohol policy
Referred/mandated to treatment
Received either MI or a computer-guided alcohol education program

This study focused only on MI condition
If you drink too much, bad things tend to happen...
Study Design

Campus referral → MI or computer → 3-month followup → 12-month followup

Assessment
Study Design

Campus referral → MI or computer → 3-month followup → 12-month followup

Assessment

Sessions recorded

Transcribed
Coded
Data Analysis
Study Design

Campus referral → MI or computer → 3-month followup → 12-month followup

Assessment

Sessions recorded

Transcribed
Coded
Data Analysis

Assessment
Content of MI

Review the Event - talk about the event that led to the mandate for treatment

Pros and Cons – describe positive and negative aspects of alcohol use

Social Influences – what friends and family thought about their alcohol use, and the referral event

Feedback Report - normative data presented; also risk-taking and family history

Envisioning the Future - look forward to a future both with and without changing drinking

Plan for Change – if desired, this was created in collaboration between the therapist and student
Assessment: Alcohol Use

Timeline Followback assessed alcohol use over the prior 30-day period. A calendar-assisted measure to help with retrospective accounts of drinking.

Provided summary scores for analyses:
• Number of heavy drinking days in the past month (HDD)
• Average number of drinks per drinking day (AVG)
• Maximum number of drinks per drinking occasion (MAX)
• Highest estimated blood alcohol level (BAL)
Assessment: **Problems from Drinking**

Problems experienced as a result of alcohol use. Measured frequency of alcohol-related problems within prior three months, using *Young Adult Alcohol Problems Screening Test* (YAAPST), 27-items.

- Driven intoxicated
- Been hung over
- Physical fights
- Lost friends
- Regretted sex

- Blackout
- Grades harmed
- Late for work or school
- Felt guilty
Language Measurement

Therapist MI-Consistent (MICO)
Therapist MI-Inconsistent (MIIN)
Patient Change Talk
Patient Sustain Talk

Motivational Interviewing Skill Code 2.0
5 coders, 40+ hours of training
## Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>M (SD)</th>
<th>ICC</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICO</td>
<td>82.6 (29.7)</td>
<td>.97</td>
<td>46%</td>
</tr>
<tr>
<td>MIIN</td>
<td>0.8 (1.5)</td>
<td>.47</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Change Talk</td>
<td>51.8 (20.6)</td>
<td>.85</td>
<td>37%</td>
</tr>
<tr>
<td>Sustain Talk</td>
<td>21.7 (10.5)</td>
<td>.54</td>
<td>16%</td>
</tr>
<tr>
<td>Session length</td>
<td>53.4 (10.5)</td>
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</table>
## Results

### Therapist-Client language

<table>
<thead>
<tr>
<th></th>
<th>MIIN</th>
<th>Change Talk</th>
<th>Sustain Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICO</td>
<td>n.s.</td>
<td>.47***</td>
<td>.36***</td>
</tr>
<tr>
<td>MIIN</td>
<td>-</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Change Talk</td>
<td>-</td>
<td>-</td>
<td>.35***</td>
</tr>
</tbody>
</table>

*** $p < .001$
Results

Therapist-Client language

- Therapist MICO
- Therapist MIIN
- Client Change Talk
- Client Sustain Talk
### 3-month outcomes

**Relationship between language and drinking outcomes**

<table>
<thead>
<tr>
<th></th>
<th>HDD</th>
<th>AVG</th>
<th>YAAPST</th>
<th>MAX</th>
<th>BAL</th>
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<tbody>
<tr>
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<td>-.01</td>
<td>.04</td>
<td>.06</td>
<td>.003</td>
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<tr>
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<td>.03</td>
<td>.04</td>
<td>.02</td>
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<tr>
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<td>.21</td>
<td>.002</td>
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<tr>
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<td>.40***</td>
<td>.32***</td>
<td>.39***</td>
<td>.33***</td>
<td>.29*</td>
</tr>
</tbody>
</table>

*** $p < .001$, ** $p < .01$, * $p < .05$
3-month outcomes

Therapist MICO

Therapist MIIN

Change Talk

Sustain Talk

No. of heavy drinking days

Average drinks per drinking day

Average drinks per drinking day

Maximum drinks on any occasion

Peak blood alcohol level
## 12-month outcomes

**Relationship between language and drinking outcomes**

<table>
<thead>
<tr>
<th></th>
<th>HDD</th>
<th>AVG</th>
<th>YAAPST</th>
<th>MAX</th>
<th>BAL</th>
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</thead>
<tbody>
<tr>
<td>MICO</td>
<td>.08</td>
<td>.21</td>
<td>.18</td>
<td>.25*</td>
<td>.35**</td>
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<tr>
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<td>-.15</td>
<td>-.12</td>
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<tr>
<td>Change Talk</td>
<td>-.06</td>
<td>-.01</td>
<td>.01</td>
<td>.01</td>
<td>.15</td>
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<tr>
<td>Sustain Talk</td>
<td>.28**</td>
<td>.37***</td>
<td>.35**</td>
<td>.35***</td>
<td>.34**</td>
</tr>
</tbody>
</table>

*** $p < .001$, ** $p < .01$, * $p < .05$
12-month outcomes

- Therapist MICO
- Therapist MIIN
- Change Talk
- Sustain Talk

- No. of heavy drinking days
- Average drinks per drinking day
- Average drinks per drinking day
- Maximum drinks on any occasion
- Peak blood alcohol level
The big picture

- Change
- Sustain
- Talk
- MICO
- MIIN
- No. of heavy drinking days
- Average drinks per drinking day
- Average drinks per drinking day
- Maximum drinks on any occasion
- Peak blood alcohol level
Discussion

Increased therapist MI-consistent language was associated with both change talk and sustain talk

- The “exploration of change” (consistent with findings of Gaume 2008, 2010; Moyers 2007)

MICO also (surprisingly) predicted increased alcohol use and related problems

- This result became largely non-significant once the influence of sustain talk was partialled out statistically
Discussion

Sustain talk may be more important to attend to among mandated clients

Change talk may be a more important predictor of outcomes with treatment-seeking clients

(Moyers et al., 2009; Vader et al., 2010)

Study provides partial support for the “technical hypothesis” of MI efficacy

(Miller and Rose, 2009)
Acknowledgements

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Thank You!

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